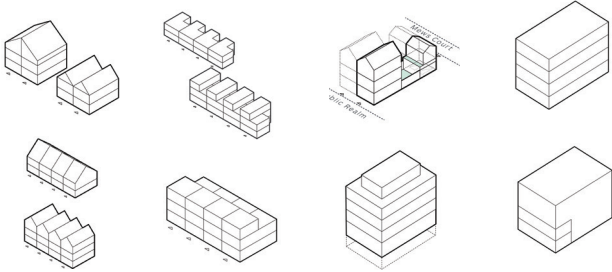
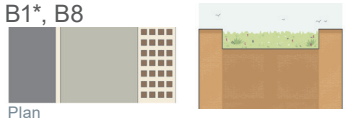


6. Residential Built Form

6.4.6 STC Interface

Street Component	Permitted Types	Notes
Building Line	Linear	
Spacing between buildings	Consistent	
Building alignment / orientation	Parallel	
Parcel Edge Planting	N/A	Planting to be provided within the verge

Component	Illustration	Notes
Building Typologies	SD1, T1, T3, F1, F2, F3, U3, U5 	- East of Lime Avenue: predominantly terraces with some semi-detached homes. - West of Lime Avenue: predominantly terraces or urban townhouses with apartment blocks nearer the Village Centre. - West of the Village Centre: transition towards the softer semi-detached outer edge.
Parking Arrangements	P4, P6*, P11 	P6* Alternative layout for apartments permitted. (For full library of parking typologies refer to the back of this chapter).
Front Boundary Treatments	B1*, B8 	B1 boundary condition is only permitted within the Village Centre.
Set-back	0.5-2m	
Materials	Walls - Primary  Walls - Accent  Roofs  Windows  Balconies  Details 	Where a building is part of a Key Grouping it must demonstrate a cohesive material application with the rest of the homes within the grouping.

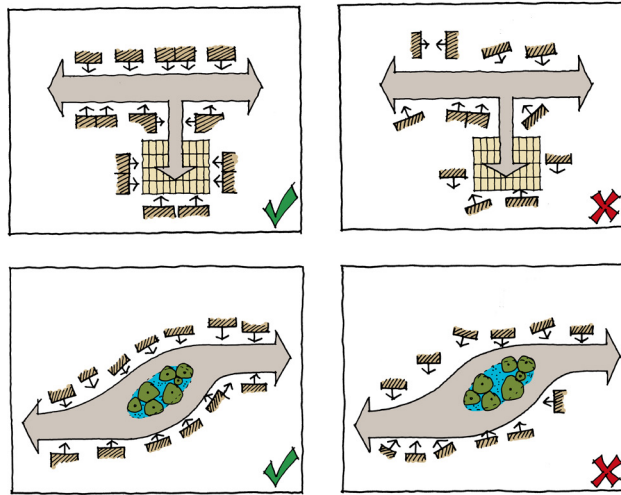
6. Residential Built Form

6.5 Urban Design Principles

Building Positioning & Plot Sizes

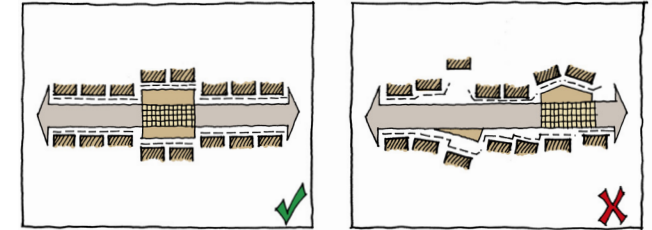
- The character of the residential neighbourhoods **must** be influenced by how buildings relate to the parcel on which they are located, and the size of the individual plot in terms of both its width and depth.
- As part of the envisaged character of Village 1, RMAs **must** demonstrate a suitable variety in plot sizes/shapes, avoiding a rigid arrangement of dwellings on repeated plots. This **should** be expressed through subtle variations in the positioning of buildings on their plots (setbacks). The degree to which this variety manifests itself in detailed layouts **should** be reflective of street type, housing density and typology.
- In higher density areas, featuring mixed uses/terraced homes/linked homes/apartment blocks, a variety in setbacks **should** be occasional rather than prevalent. Buildings **must** achieve a clear definition of streets and spaces by generally adopting a common building line, but stepping back in carefully considered locations. This creates positive and usable spaces as an extension to the main route or space that the buildings face.
- In lower density areas with a greater proportion of detached dwellings, a greater variation in set back and plot size/shape **should** be expressed. This allows the opportunity for more informal and organic streets and spaces to be formed.

The following residential layout principles **should** be adhered to throughout all RMAs to achieve well designed streets and spaces.



BUILDING ORIENTATION MUST RELATE TO ROUTES AND SPACES

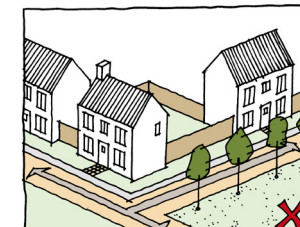
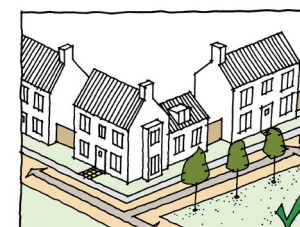
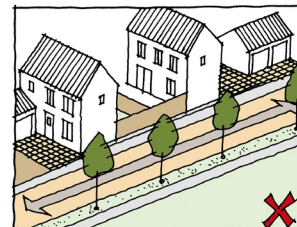
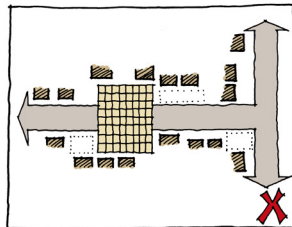
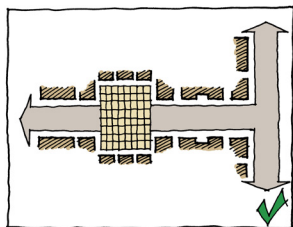
- Buildings **must** directly face routes and spaces such that their primary frontage is parallel to the edge of that route or space.
- For informal arrangements the dwelling **must** still align to the immediate edge of the route or space it faces.
- Primary entrances to buildings, or to entrance courtyards serving buildings, **must** be visible from the public realm.
- Buildings **should not** be positioned at an angle to the back-of-footpath line, or to the defined edge of a shared surface.



BUILDING ALIGNMENT MUST BE COHERENT

- Building frontages **must** establish a common building line where they face routes or linear spaces (except in areas of lowest density with informal frontages).
- Lots of rear and flank walls **should** be avoided, including to garages and outbuildings and especially where they create a blank facade.
- Along tighter/more enclosed streets where the distance between building frontage and back of footpath **should** be minimised, a buffer privacy strip of a minimum 1m, including landscaping **must** be maintained at all times.

6.5 Urban Design Principles



CONTINUITY AND ENCLOSURE MUST BE ACHIEVED

- All frontages along streets and spaces **must** be designed to create clear definition through legible continuity of building form, linkage and positioning.
- Public and private space **must** be clearly distinguished through continuity of frontage.
- 'Semi-public' space arising from lack of continuity or enclosure **must** be avoided.
- Adequate spacing for fire safety, access, servicing and maintenance **must** be provided between side-by-side detached dwellings, and RMAs **must** clearly describe and justify these dimensions.

ROUTES AND SPACES MUST BE ADDRESSED BY ACTIVE FRONTAGE

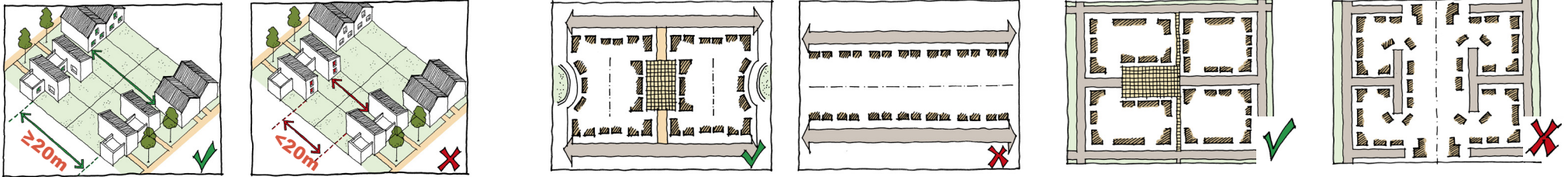
- Routes and spaces **must** be overlooked by windows to habitable rooms at ground and first floor levels, providing natural surveillance.
- Blank elevations largely devoid of windows **must** be avoided where they face, or are clearly visible from the public realm.
- Active frontages on corner plots **should** be enhanced. This could be achieved for example, through the use of: balconies at first floor level, glazing within or alongside primary entrances, and/or full height projecting bays on flank elevations where appropriate (see *Urban Design Principle: Corners and Plot Sides Must be Positively Solved*).

CORNERS AND PLOTS SIDES MUST BE POSITIVELY SOLVED

- All buildings located on identifiable corners **must** positively address both directions through either the positioning of entrances, generous windows to habitable rooms, glazed projections and/or upper level balconies where appropriate.
- Building form **must** respond to defined corner locations through the tallest or largest element of the building mass being located directly on that corner.
- Where a corner plot forms the end of a row of street-facing dwellings, the dwelling may have its primary entrance positioned on its flank elevation, but **must** ensure active frontage in all cases on both elevations. Interest may be created through projected windows and upper level balconies.
- Corner-turning buildings **should** be positioned on defined corner locations.
- Simply introducing one or two windows on a flank elevation will not represent an acceptable solution for a dwelling on a corner plot.

6. Residential Built Form

6.5 Urban Design Principles



PRIVACY MUST BE MAINTAINED

- Direct views from dwellings into dwellings through windows on their rear and flank elevations **must** be avoided, either by separation of ≥ 20 metres (properties back-to-back) or through detailed design measures.
- Habitable rooms **must not** be served only by windows comprising opaque glass.
- Appropriate privacy measures in higher density areas where buildings are less than 20m apart **should** be utilised. These measures could include creating varied floor levels, the use of opaque glazing or louvres, the angling or positioning of windows to avoid direct sightlines, the use of full-height screening on windows to courtyards or terraces, and/or high/low level and shaped windows.
- Trees **should** be provided along rear boundary lines of gardens to provide veiled screening.

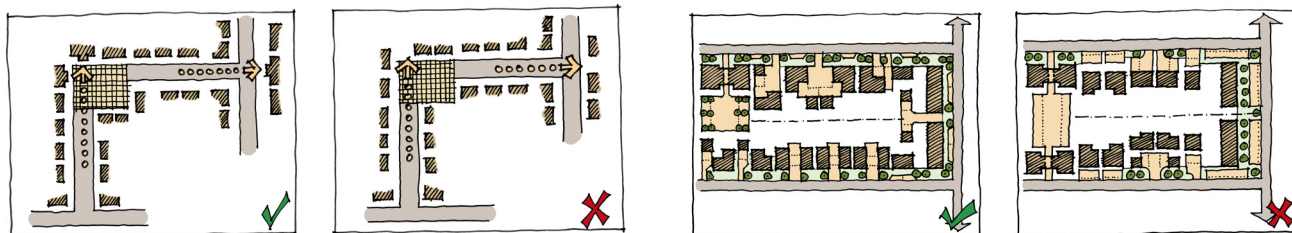
GROUPINGS MUST FORM COMPONENTS OF THE LAYOUT

- Within development parcels, dwellings **must** be configured in identifiable groupings that define spaces of a certain character and function.
- Groupings **must** be discernible either as 'clusters' of buildings around a shared space, or configurations that face and define a particular space to their front.

CONNECTIONS AND PERMEABILITY MUST BE INTEGRATED THROUGHOUT THE LAYOUT

- Pedestrian and cycle routes **must** be interconnected and not lead to dead-ends.
- Where vehicular routes reach a terminating space pedestrian routes **must** continue beyond that space and connect to the nearest public route or space.
- Rigid 'hammerhead' road arrangements **must** be avoided.
- Parking courts serving more than two dwellings **must** either be gated or offer a clear through-route to pedestrians.

6.5 Urban Design Principles



VISUAL STOPS MUST BE ESTABLISHED

- Where linear spaces or routes establish a vista, that vista **must** either end in a defined public open space or be terminated by a 'visual stop'.
- Vistas **must not** terminate in a view of, for example, a private driveway or garage door, or the side boundary wall to a plot.
- Marker or key buildings **must** define key corners and frame key views.
- A 'visual stop' **should** be a carefully positioned marker building or landmark, or a prominent landscape feature.

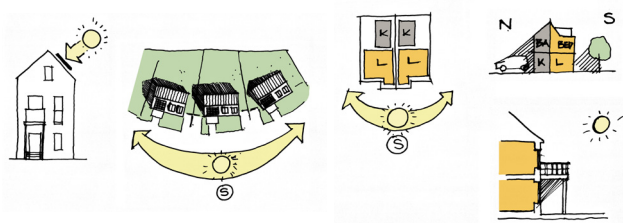
CAR PARKING MUST HAVE MINIMAL VISUAL IMPACT

- All development parcels **must** utilise a variety of parking solutions and not rely on just one or two methods of accommodating cars.
- On-plot parking **must** be positioned such that parked cars do not sit forward of the common building line where a layout has established street continuity. This will be permitted along areas of lower density with larger set backs and in internal lanes/mews/courtyards.
- A group of more than 4 parking spaces **must** be sub-divided by a landscape strip of a minimum 1.5m, unless at least one large tree (at ultimate size) is planted in that row and that row has no more than 8 parking spaces.
- Designated on-street parking parallel to the carriageway, **must not** exceed 3 spaces in a row without being subdivided by an area of landscape and sufficient space for planting of at least one street tree (with the exception of the mixed-use areas).
- Tree planting used to mitigate the visual impact of parking **must** utilise cell structures under paved/ parking areas to provide the necessary rooting zones to cater for the growth and long-term survival of trees. Subdividing planting could also act as rain gardens. *(Further guidance on rain gardens is set out in Section 4.6 Blue Infrastructure Components).*
- Trees overhanging parking spaces **must** not cause nuisance to parked cars through their fruit or the production of honeydew by invertebrates feeding on them.
- All private parking spaces **should** be located with easy access to the dwellings they serve.
- Further guidance on parking courts is set out in Section 6.12.*

6. Residential Built Form

6.6 Street Scene Principles

The Design Code does not impose an architectural style on the development, but sets out a rationale to which RMAs **should** adhere to:



ASPECT AND ORIENTATION

- Dwellings **should** maximise the potential for roof pitches to face south where possible.
- Dwellings **should** maximise potential for south/south-west facing habitable rooms where possible.
- Where gardens are north facing they **should** be longer to account for the building shadow to allow at least part of the garden to have sunlight.
- Dwellings **should** show consideration of solar shading principles to provide a comfortable habitable environment.



FRONTAGES ADDRESSING THE PUBLIC REALM

- Dwellings which front the public realm **should** maximise the potential for active frontages with the provision of balconies, bays and/or other fenestration elements. This will provide natural surveillance and assist in creating animation along the street scene.



APPROPRIATE CHARACTER & DENSITY

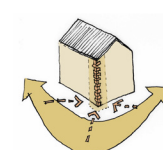
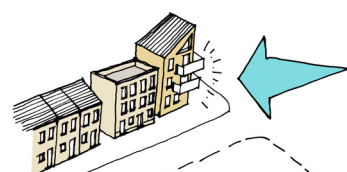
- Proposals **must** follow the gradation from formal to informal built form. This **must** be achieved by using appropriate and recognisable forms which relate to the relevant character areas envisaged. For example, mixed-use/commercial areas **must** be distinct from 'rural edge' character areas where neighbourhoods adjoin existing landscape.

6.6 Street Scene Principles



SILHOUETTES

- Dwellings **must** create unified and articulated silhouettes through repetitive roof forms within terraces and groupings of dwellings. This can be achieved, for example, through the use of chimneys or gables.
- Future proposals **must** address the roofscape and dwelling composition of development with a particular focus on roof forms.



VISTA STOPPERS

- Marker Buildings **must** be animated with key features such as projecting bays, large window openings, balconies and/or expressive roof forms.
- Marker Buildings **should** terminate the end of vistas or long views, address prominent corners and frame key views.

RICHNESS & ARTICULATION

- Proposals **must** articulate the form along edges and corners, utilising shadows created by changing depths and recesses in the design of the elevation to create contrasts in tonal value.
- Design approaches **should** be simple and well resolved enriched by the articulation of materials, texture, depth and occasional decoration.

6. Residential Built Form

6.6 Street Scene Principles



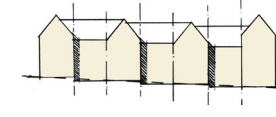
Simple wide-fronted units with subservient elements e.g. garage, bay etc.



Gable used to provide shelter to loggia and bay



Timber balcony unifies different fenestration



Topography addressed through stepped footprint and massing



Building form steps down slope with distinctive stepped breaks

CLARITY & RATIONALE

- Dwellings **must** match the description of their typology.
- Individual dwellings **must** utilise simple forms and **must** be grouped to form simple massings.
- Dwelling features **must** be simple and honest to the purpose they serve, e.g. usable balconies.
- The use of structures and/or materials **must** demonstrate a rationale and may distinguish key elements of the dwelling such as projecting bays.
- Fake bricked-in windows **must not** be used.

ORDER, UNITY & VARIETY

- Variety **must** be achieved through handed, framed and repeated elements but groupings of dwellings forming street scenes **must** achieve order and unity within their overall layout and composition.
- Future proposals **must** achieve coherence, reading as a considered composition and not a random assortment of forms and types. Recognising the characteristics and vision of Village 1, the principle of achieving variety within a coherent street scene **must** be further articulated.

RESPONSE TO TOPOGRAPHY

- Designs **must** respond to changes in topography, avoiding significant retaining walls where possible.
- Built forms **must** reflect changes in level.
- Future proposals **must** establish principles for appropriate development form on areas with significant slopes, seeking in principle to avoid significant land reprofiling.
- Built forms **should** have consistent stepping down a slope.

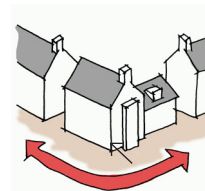
6.6 Street Scene Principles



Simple canopy or porch marks entrance



Porch 'cut-out' of plan provides visual interest as well as shelter



Entrance to corner turning home on the side elevation

INDIVIDUALITY IN LINKED & TERRACED DWELLINGS

- Dwellings which form part of a terrace or grouping of buildings **must** express individuality by celebrating entrances and openings. This can be achieved, for example, through alternating features such as projecting elements or setback elements within the composition of a group of linked dwellings.
- Where dwellings are grouped into single terraced blocks, or are linked, they **must** be legible as individual dwellings.
- Divisions between plots **must** be expressed.

CELEBRATE ENTRANCES

- Entrances to dwellings **must** add definition and create interest to the front elevation.
- Entrances **must** be provided with some form of shelter and safe transitional space.
- *Section 6.7 'Building Design Principles'* provides further principles on how building entrances can be suitably expressed and 'celebrated' as a focus to the design of elevations, aiding in building legibility and positive frontage onto the public realm.

6. Residential Built Form

6.6 Street Scene Principles

TRANSITIONS IN SCALE & MASSING

- Building heights, scale and density **must** transition to avoid sudden changes in character.
- Sudden changes in scale and massing **must** be avoided.
- Perimeter blocks **must** maintain consistency with gradual increases in scale and massing.
- There **must** be a gradual increase in scale and density along the street from less dense areas to primary frontage.
- There **should** be at least two unifying elements in every street scene. This may be the building line, the storey height, the window proportions, the materials or the colour.

Example I

- Sudden changes in scale and massing **should** be avoided.



Example II

- Perimeter blocks **must** maintain consistency with gradual increases in scale and massing.



6.6 Street Scene Principles

TRANSITIONS IN STYLE

- Colours, materials and textures **must** be harmonious.
- Dramatic changes in style, features, materials and articulation of character **must** be avoided, either across streets or within perimeter blocks. The integration of styles and character **should** be seamless between parcel boundaries and character areas.
- Proportions of elevations and their details **should** align
- Changes in character **should** preferably occur at the back of plots or at either side of major landscape features.

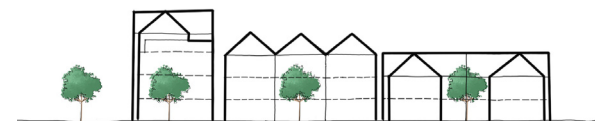
Example III

- Incongruous scale and massing leading to disrupted integrity of perimeter blocks **must** be avoided.



Example IV

- There **must** be gradual increase in scale and density along street from less dense areas to primary frontage.



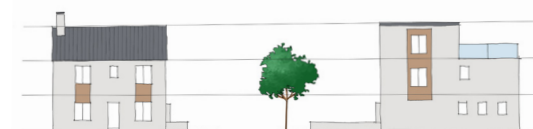
Example V

- Dramatic changes in style, features, materials and articulation of character **must** be avoided, either across streets or within perimeter blocks. The integration of styles and character **should** be seamless between parcel boundaries and character areas.



Example VI

- Colours, materials and textures **must** be harmonious.
- Proportions of elevations and their details **should** align.



6. Residential Built Form

6.7 Building Design Principles

Sustainable Building Design

To achieve the sustainability principles of Village 1, designs **must** consider designs that are adaptable to different uses/lifestyles and resilient to future change.

Future Homes Standard

The development of Village 1 **must** meet the standards of the day. From 2025, all new build homes **must** meet the Future Homes Standard. To meet this requirement, all designs **should** consider incorporating these design principles set out below:

- Reduce glazing areas higher up the facade where there is more daylight available and less overshadowing.
- Consider shape, size and orientation of windows to maximise daylight distribution while ensuring privacy and increasing ventilation.
- Balance window size, shape and orientation with façade articulation and consider design features that improve this, where possible.
- Keep cold spaces such as bin/bike stores and substations separate or towards the north end of apartment blocks, where possible.
- Consider glazing-to-wall ratios to minimise heat loss to the north (smaller windows) while providing sufficient solar heat gain from the south (larger windows).
- Prioritise living areas with larger windows on the south.
- Consider the risk of overheating from low sun on east/west orientations.
- Prioritise dual-aspect, south-facing dwellings.

Building Orientation

- The principles above **must** be balanced against the need to ensure appropriate levels of glazing to street-facing/public-realm fronting elevations, and/or maintaining a desirable relationship with the garden for specific locations.
- Where possible, the design **should** maximise the potential for passive energy gains in the home by optimising the orientation of buildings so that their principal elevations are aligned either on a north-east to south-west or north-west to south-east axis.
- The design **should** optimise the area of glazing on elevations facing south, south-east and south-west (up to 60% glazing with appropriate shading) and minimise the glazed area on other elevations.
- Floorplans **should** be designed so that principal living spaces benefit from access to the sun (e.g. south, south-west or west facing), and locate secondary spaces on the less sunny side(s) of the building where this does not create an extreme internal temperature imbalance.
- Landscaping and outdoor space **should** be considered, orientating the building to get appropriate shade and cooling from surrounding trees and planting.

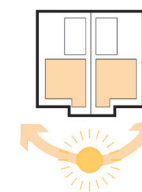
Daylight and Sunlight

Proposals **should** use winter sun to heat homes, but include suitable design measures to limit overheating from the afternoon summer sun. These may include:

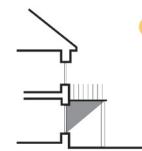
- Detailed consideration of glazing specification.
- The use of adjustable shading or specification of planted features which can allow low-level sun to penetrate in winter but block high-level summer sun (e.g. deciduous trees).
- Internally opening windows which have shutters and external shading where the principle rooms are south facing.
- The incorporation of natural ventilation to help dwellings stay cool in summer and enhance the internal environment (e.g. by facilitating cross ventilation of habitable rooms, or using stack effect of staircases through the provision of openable vents or rooflights).



Optimising building orientation for passive energy gains.



Ideally, reception/living room should face south, and kitchen/bathrooms should face north.



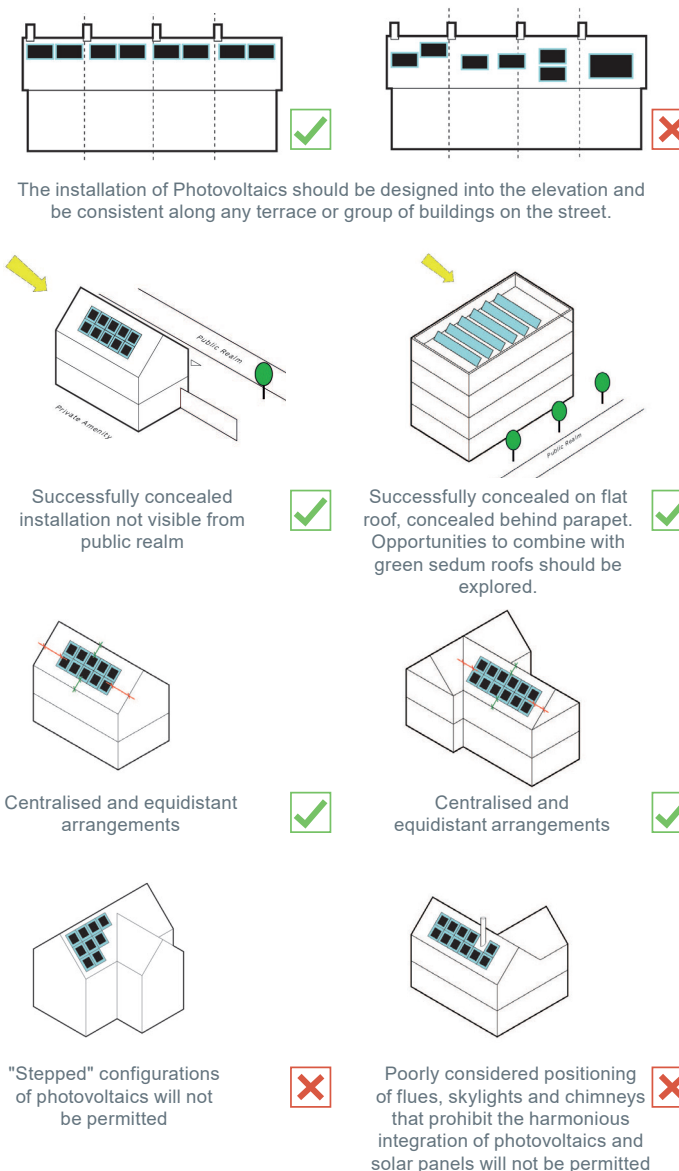
6.7 Building Design Principles

Renewable Energy

- A fabric first approach **must** be considered to maximise thermal performance to minimise energy demands.
- The design and installation of photovoltaic (PV) panels/tiles **must** be well thought out as part of the overall roof and elevation composition to not compromise the visual quality of the dwelling and street scene.
- PV arrays **must** be designed into the elevation and be consistent along any terrace or group of buildings on the street.
- Low emission energy generation **must** be used for space heating, hot water, and electricity, such as air source heat pumps, PVs or other technologies.
- EV charging **must** be provided in accordance with the latest Building Regulation requirements at the time of planning submission.

- PV arrays **should** be laid in symmetrical configurations and equidistant from all edges of the plane on which installed.
- PV arrays **should** be flush to the roof surface and not protruding where possible.
- Locations of flues, chimneys, skylights and dormers **should** be considered so as not to prohibit the installation of photovoltaics and solar thermal panels at a later stage, in compliance with the above principles.
- Discrete systems **should** be used so as to not detract from the overall appearance of the dwelling and street scene.
- Where photovoltaics and/or solar thermal panels are installed on flat roofs, they **should** be concealed behind a parapet so as not to be visible from the public realm.
- Opportunities to maximise solar gain **should** be sought.

Refer to Section 6.9 Household Utilities & Waste for information on heat pumps.



6. Residential Built Form

6.7 Building Design Principles

Sustainable Materials and Building Construction

- Design **must** use a fabric first approach.
- A more circular economy approach that improves resource efficiency and innovation **should** be used.
- Locally sourced materials and labour **should** be used where possible.
- Modern Methods of Construction, pre-assembly and off-site fabrication **should** be investigated and applied to minimise waste and increase efficiency.
- High albedo surfacing materials are strongly encouraged to reflect heat and mitigate against the heat island effect.

Specified materials and products **must**:

- Consider the use of mortars and renders to allow for carbon capture and future reuse and recycling of brick and blockwork.
- Use sustainable timber from approved FSC (Forest Stewardship Council) sources.
- Use solvent-free paints, internally and externally.

Private Amenity Space

Private amenity space **must** be provided appropriate to the dwelling it serves. Private amenity space could be provided in: back gardens, front gardens, roof/upper level terraces, roof gardens, courtyards and balconies. As a minimum, dwellings **must** have direct access to private amenity space according to their size and likely number of occupants:

- Detached or semi-detached family homes with three or more bedrooms **must** be capable of comfortably accommodating outdoor seating for the family, space for children's play, planting beds, space for drying clothes, and room to unobtrusively accommodate a shed or greenhouse. This **could** also be provided through alternative amenity spaces such as an upper floor terrace or balcony space.
- If covered bin and bike storage is to be accommodated within private garden areas it **should** be directly accessible from the street serving the property.
- If bin storage is to be accommodated within communal areas then these **must** be covered and screened.
- Compact two and three-bedroom houses **should** have sufficient ground-level private amenity space to accommodate the activities of a couple or young family.

Private amenity space **should** be designed to have the capacity to support broad sustainability aims and could include:

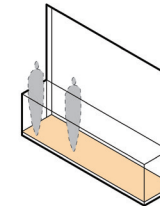
- Composting facilities
- Landscaping that supports biodiversity
- Landscaping that is resilient to extreme weather conditions and climate change
- Opportunities for growing food at home
- Opportunities for rainwater harvesting

If apartments are provided without sufficient amenity space directly accessible from the dwelling then communal gardens, private to the block, **must** be provided to make up the shortfall.

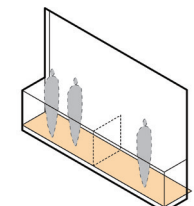
The provision and size of private communal gardens **must** be considered on a plot-by-plot basis to ensure adequate

and meaningful spaces can be provided taking into consideration of the following:

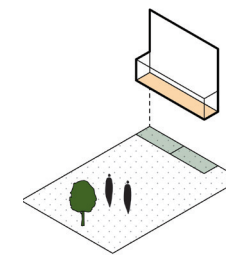
- Scale of the building.
- Number and mix of apartments and residents served.
- Internal and external layout of the building.
- Proximity and access to private amenity space.
- Character, function and use of the communal garden.
- Daylight and sunlight requirements.
- Management and maintenance.



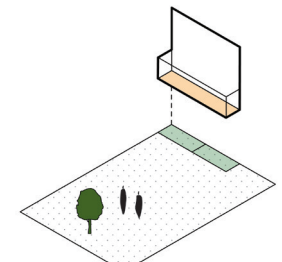
1 Bed/2 Person - minimum
5sqm Private balcony*



2 Bed/3 Person - minimum
6sqm Private balcony*



2 Bed/4 Person - minimum
7sqm of private balconies*



3 Bed/5 Person - minimum
8sqm of private balconies*

*Note: balconies should be a minimum of 1.5m deep to accommodate a table and chairs.

6.7 Building Design Principles

Water Systems and Management

- Low water-use systems **must** be provided at all opportunities, e.g. dual-flush toilets, showers, baths and sinks fitted with tap aerators, dishwashers and washing machines with higher water efficiency ratings.
- Development **should** achieve a potable water efficiency target of 105 litres per person per day.
- Designs **should** include water butt rainwater harvesting for irrigation of domestic gardens.
- Landscaping schemes **should** be drought-resistant (*Refer to Section 4.10 Climate Change & Biosecurity Strategy*).
- The use of green/brown/blue roofs for storm water attenuation **should** be considered.
- Rainwater harvesting systems **should** be provided to help conserve water and manage stormwater runoff.

Bird boxes

- Integrated bird boxes **should** be provided on suitable properties within the development, taking into account of factors such as high lighting levels.
- Bird boxes **should** be located in a sheltered position, facing north-east to south-east, to avoid prevailing wet winds and the heat of the midday sun.
- The nest box **should** be placed at least 2m off the ground and away from overhanging branches to stop cats from reaching the nest.

Bat boxes

- Integrated bat boxes **should** be provided on suitable properties within the development, taking into account of factors such as high lighting levels.
- Bat boxes are best placed on known bat flight routes positioned in trees and/or on buildings and away from artificial light.
- If located on a tree, the position **should** be relatively free of branches to allow a clear line of flight.
- If located on a building, boxes **should** be positioned under the eaves to ensure they are sheltered from bad weather.
- Where possible, bat boxes **should** be southward facing and positioned at least 3-10m high above the ground away from predators.

Hedgehog Access

- Garden fences and walls **must** have hedgehog-friendly holes to allow unrestricted movement through the area.

Technology

- High-speed internet connections **should** be provided to enable and support working from home and flexible working.
- All electrical appliances and lighting **should** achieve the highest energy efficiency ratings.
- The integration of Apps and other future technology into the design of new homes is strongly encouraged to allow residents to control heating, lighting, power and energy, and surveillance remotely.

Management and Maintenance

- User manuals and easy access to equipment for maintenance **should** be provided.
- Strategies which make it easy for occupiers to manage their buildings **should** be adopted. These **should**:
 - Provide responsive systems which are simple to use and manage.
 - Ensure that additional storage space is provided in the plan for necessary kit.
 - Specify building and mechanical systems that are easily repaired through replacement of components rather than wholesale disposal and replacement.

6. Residential Built Form

6.7 Building Design Principles

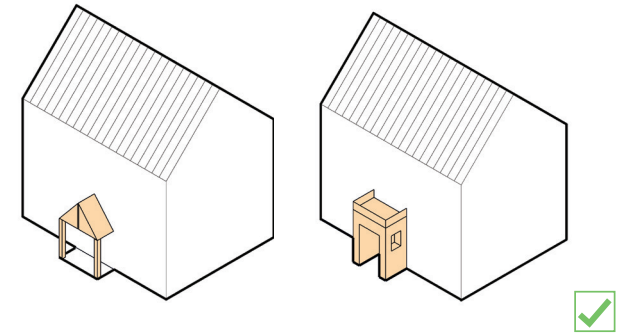
Threshold Zone

Entrances and Doors

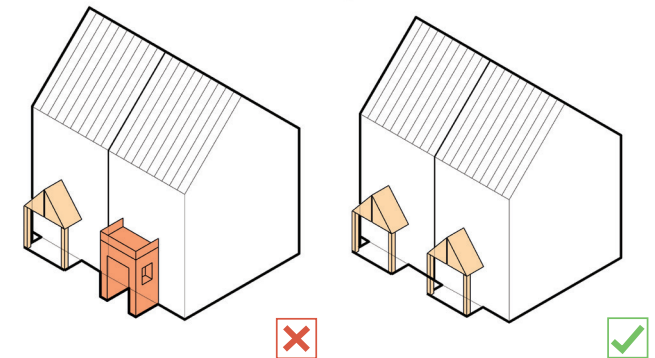
- Active frontage **must** be provided to the public realm and the main entrance **should** be clearly visible from the street.
- The main building entrance **must** be clearly defined and create a sense of arrival.
- High-quality, robust doors **must** be used, in a style which complements the overall character of the building.
- All doors **must** be recessed from the face of the building elevation (exceptions may be made for timber-clad or tile-hung buildings).
- uPVC doors **must not** be used on front doors.
- The entrance to corner-turning homes **should** be on the side elevation to maximise passive surveillance onto the public realm.

Porches and Canopies

- A porch or canopy **must** be provided to every entrance, with generous shelter from the elements.
- Small-scale enclosed porches **must not** be used. A porch may be formed by a recessed entrance within the primary elevation.
- Porches and canopies **must** be integral to the design of the elevation and not be overly dominant.
- The size of roof tiles **must** be proportionate to the size of the roof.
- Ridge and hip tiles that are disproportionately large relative to the size of the porch **must not** be used.
- GRP porches and canopies **must not** be used.
- Flat roof porches and canopies **should** be clad with lead, zinc or copper standing seam, or finished with glass.
- Pitched roof porches **should** be clad in the same material as the principal roof of the dwelling.



Entrances should be celebrated and designed as integral to the elevation. Porches should provide sufficient shelter.



Adjoining dwellings should have a consistent treatment to porches & entrance.

6.7 Building Design Principles

Fenestration

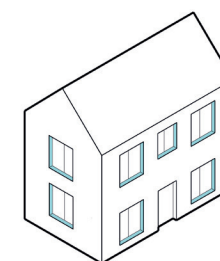
Windows

- The colour, thickness of the frame, quality and design of windows **must** be consistent on all elevations of a building.
- All windows **must** be recessed from the face of the building elevation (exceptions may be made for timber-clad or tile-hung buildings).
- Windows **must** limit the number of mullions and transoms, all of which **should** be functional (stuck on glazing bars **must not** be used).
- Windows **should** open inwards where properties face full or low sun, to enable the use of external shutters and louvres.
- Windows **should** ideally be constructed with sub-frames, so that fixed and opening lights have the same glazed area.
- Windows **should** be as large as possible to maximise access to daylight and sunlight in the building, while having due regard for potential heat loss/gains and balancing wider sustainability goals.
- Buildings **should** utilise a variety of window sizes to create visual interest, with the size of windows appropriate to the uses within. Where a variety of window sizes are utilised there **should** be consistency in their horizontal or vertical positioning.

- The use of feature elements such as corner windows, bays and oriels is encouraged, particularly to add rhythm along the street or create emphasis at the end or on the corner of a street.

Bay Windows

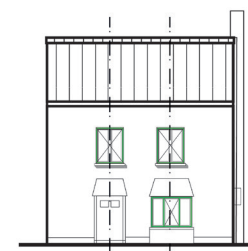
- Bay windows **must** be designed as an integral part of the elevation.
- Frame members and corner posts **must** be carefully considered to ensure they are neither too bulky nor too flimsy in appearance.
- The roofing material of pitched-roof bay windows **must** match the material of the main roof.
- The size of roof tiles **must** be proportionate to the size of the roof.
- GRP bay windows **must not** be used.
- The roofing material of flat-roof bay windows **should** be standing seam lead, zinc or copper.



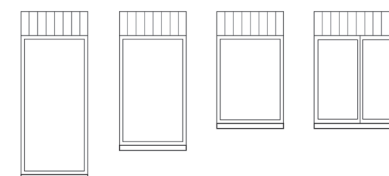
Consistent window treatments across elevations



Inconsistent window treatment on different elevations



Bay windows should be designed as part of the overall composition of the elevation.



Simple, vertical fenestration

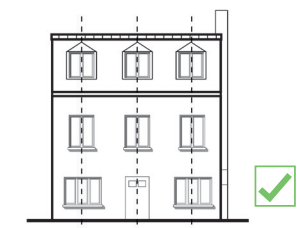
6. Residential Built Form

6.7 Building Design Principles

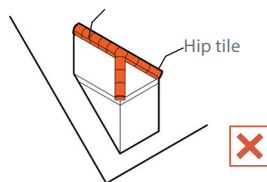
Fenestration

Dormer windows

- Dormer windows **must** be integral to the composition of the main façade in terms of design and positioning.
- A fabric first approach **should** be taken to minimise the potentially high heat loss through dormer windows.
- Gabled dormers **should** use a consistent pitch and material to that of the main roof and **must** avoid oversized ridge/hip tiles.
- GRP roofs **must not** be used.
- They **should** maintain overall vertical proportions, i.e. be taller than they are wide.
- Where more than 2 dormer windows are located along one elevation, or the windows are close together, they **should** be positioned above the eaves line to avoid a need for excessive numbers of rainwater downpipes.



Dormer windows should complement, and generally align with, the fenestration of the main facade.



Ridge and hip tiles that are disproportionately large relative to the window opening are not acceptable.

Balconies

- Balconies **must** be complimentary to the composition of the main façade in terms of design, positioning and materiality.
- Balconies **must** be appropriately sized as usable outdoor space.
- Privacy from the street and opposing properties **should** be considered through vertical and horizontal railing design. On apartments, screens to adjoining balconies **must** be opaque.
- External load bearing structures for the support of balconies **must** not be used on dwellings taller than 2-storey. The design **must** complement the elevation's composition.
- Balconies **should** integrate planters and be sufficiently strong to support plants.



Cantilevered balconies for multi-storey buildings are acceptable.



Balcony design should be integral to the composition of elevations



Appropriately sized inset balconies are also acceptable.



Dormer windows may also be intentionally offset if the overall composition is well considered



High-quality balconies designed to complement to overall composition of the elevation

6.7 Building Design Principles

Roofs, Eaves and Verges

Roofs

- All garage roofs **must** be pitched, with the exception of those providing a roof terrace for an adjoining dwelling.
- Roofs **must** create an attractive silhouette.
- Where bird and bat boxes are provided, they **must** be integrated into the roof design.
- Roofs **should** be designed to complement the style of the building and the character of the surrounding area. An exception may be made for feature or landmark buildings where it may be appropriate to choose a contrasting style.
- The majority of roofs **should** be pitched. A mix of hips and gables on the same building **should** only feature in selected locations.
- Chimneys and dormer windows **should** be used to break up long stretches of roofline and define individual units in terraces.
- The roof of large footprint buildings **should** be divided into a number of smaller elements to limit the ridge height and create a more varied and interesting roofline.

Pitched Roofs

- The roof pitch/angle **must** be consistent along a terrace.
- Pitched roofs **should** have a minimum pitch of 37 degrees. A shallower pitch may be acceptable for apartment buildings that use standing seam metal finishes or a similar contemporary material.

Flat Roofs

- Flat roofs **must** be concealed behind a parapet, or very carefully detailed to minimise the depth of fascia and provide an elegant leading edge profile. Flat roofs **should** only be used for the primary built form elements where they are an integral part of the architectural expression and/or character.
- Where appropriate and viable, roof forms **should** be designed to maximise the use of PV panels.

- Green/brown roofs are encouraged on flat roofed buildings.

Green, Brown & Blue Roofs

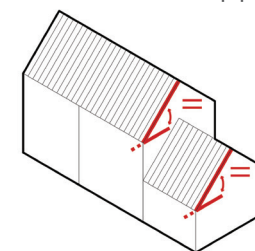
- Green/Brown/Blue roofs **should** be seeded with drought tolerant mixed plants.
- Green/Brown/Blue roofs **should** include locally appropriate native plants.
- Green/Brown/Blue roofs **should** include a variety of microfeatures including bare sand, rough stones and deadwood.
- Planting mixes and features **should** be targeted to relevant local priority species e.g. invertebrates and birds.
- Opportunities for bio-solar roofs **should** be considered to combine planting with PV panels.

Chimneys and Vents

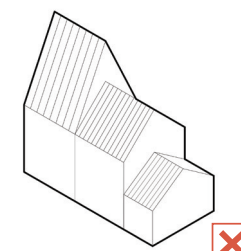
- GRP chimneys **must not** be proposed.
- Chimneys **must** be appropriately proportioned and detailed.
- The use of chimneys is encouraged where appropriate,

particularly where they are used to house vents which would otherwise be visible on the exterior of the building, or to contribute to passive systems through natural ventilation.

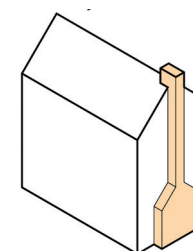
- Chimneys that are purely decorative **should** be avoided.
- Chimneys **should** be placed symmetrically on the ridgeline, and extend above it, to create a strong silhouette on the skyline.
- Chimneys **should** be constructed in the same material as the primary elevation. Metal chimneys may be used on contemporary buildings.
- External soil vent pipes **must** be avoided.



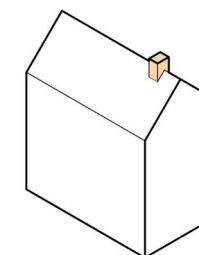
All terraces should have a consistent roof pitch.



Inconsistent roof pitches along terraces should not be permitted.



Chimneys need to be appropriately proportioned and detailed.



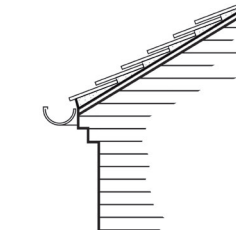
Chimneys symmetrically positioned on ridgeline.

6. Residential Built Form

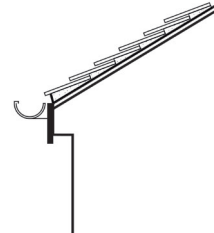
6.7 Building Design Principles

Eaves and Verges

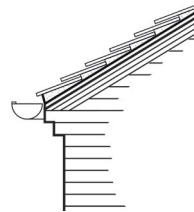
- Eaves and verge details **must** be simple.
- Copings to parapet walls **must** be detailed to prevent staining of facades by water flow from the top of the parapet.
- White UPVC **must not** be proposed for eaves and verge details.
- Eaves **should** generally be clipped/parged or use a shallow depth fascia/barge board.
- Boxed eaves **should not** be used.
- Oversized eaves or verges details **should not** be used.
- Parapet walls can be used if appropriate for buildings with a more urban character.



Clipped/parged eaves



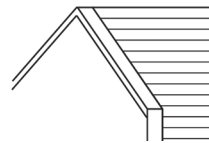
Shallow, black fascia/barge board on eaves



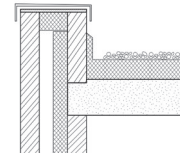
Clipped/parged verge



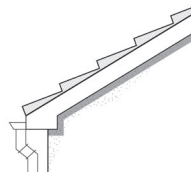
Shallow, black fascia/barge board on verge



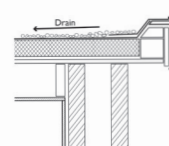
Parapet wall



Flat roof concealed behind parapet



Boxed eaves are acceptable only where responding to local vernacular.



Overhanging flat roofs that are carefully detailed are acceptable



Simple eaves and verge details



Simple eaves and verge details



6.7 Building Design Principles

Rainwater Goods

- Rainwater goods, including guttering and rainwater pipes, **must not** detract from the overall composition of the building elevation or street elevation.
- They **must** be carefully positioned to minimise visual clutter, avoiding unsightly alignments and junctions.
- White rainwater goods **must not** be used.
- The positioning of downpipes on gable ends connecting to gutters on front elevations **must not** be proposed.
- Rainwater goods **should** be black/dark grey in colour or a brushed metal finish.
- Downpipes **should** be discreetly located along the rear-edge of the house to connect into a water butt, if rainwater harvesting is being provided.
- *(Refer to Section 6.7 Building Design Principles: Water Systems and Management).*

Built Form Detailing

- Individual properties **must** be defined in a terrace or group of dwellings (e.g. through roofline/gables, grouping of openings, expressed party walls or location of rainwater downpipes).
- Unnecessarily complicated detailing **must** be avoided.
- Simple building footprints **should** be used to create legible form.
- The palette of materials **should** be kept simple and demonstrate a clear rationale.
- Handed and repeated dwelling types **should** be used to create a rich variety in the street scene, but ensure that the scale and form of buildings are complementary to their immediate neighbours, avoiding uncomfortable juxtapositions of starkly contrasting building forms.



The visual impact of any rainwater goods should be minimised so as not to detract from the overall composition of the elevation.



Rainwater downpipes dominating the composition of the elevation due to ill consideration of dormer windows



Use of simple building footprints & detailing



Well resolved and considered palette of materials

6. Residential Built Form

6.8 Application of Materials

Materials for Residential Built Form

Facing materials for buildings **should** be selected from the permitted materials palette. The palette and key design principles are intended to create a coherent character for the development and avoid the potential for individual areas to clash or compete for attention at the expense of overall harmony.

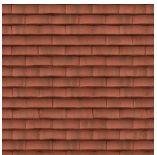
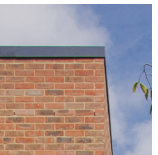
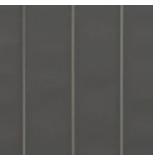
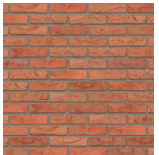
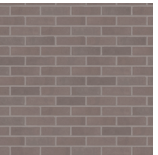
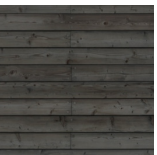
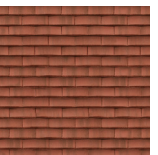
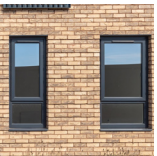
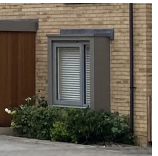
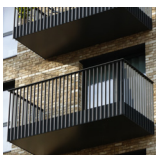
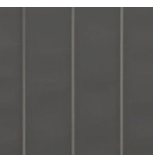
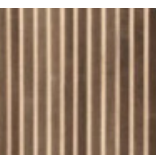
In certain locations, it may be appropriate to choose a limited number of materials which are not included in the materials library. For example, around the Mixed Use areas, or for use on Landmark or Marker Buildings. This may extend to the introduction of materials not permitted elsewhere in a Frontage Character.

Design justification **must** be provided for any such departure, with a note made in the design compliance checklist so that the proposals can be judged on their merits.

Key Design Principles:

- Specified materials **must** be durable, weather beautifully and long-term maintenance requirements **must** be considered from the outset.
- Proposals **must** demonstrate a considered and logical approach to specification. Materials **must** be carefully chosen to support the broader design intentions set out in this design code, with accompanying design justification as necessary. Reference may also need to be made to the design of adjacent parcels which are already completed or have detailed planning consent.
- Brick **must** be the primary facing material to buildings and **should** feature as a component of the boundary treatments between built form and the public realm.
- The specification of brick type and colours **must** give texture and subtle variation across the building elevations.
- Multi-stock, hand-made and/or waterstruck brick **must** be specified (extruded/wirecut bricks **must not** be used for facing brickwork).
- Brick supply **must** be carefully considered to eliminate issues with variance in the brick lift.
- Brick detailing **must** be simple and either match the main brick colour or be purposefully contrasting and used for decorative purposes.
- No more than three materials **must** be used across the walls of any given dwelling or block, and where this includes coloured render only one colour **should** be used.
- Parcels for Reserved Matters Applications which cover more than one Frontage Character **must** demonstrate a carefully considered transition between differing materials palettes.
- The colour of fascias, rainwater goods, window frames, cills, porches, balustrades **must** be of matching colour and complementary to the materials specified in the permitted materials palette. Doors (including garage doors) may have a different colour, however, none of the aforementioned components **must** be white. Designs that do not adhere to this principle **must** be accompanied by a design justification.
- Materials **should** be used to create a contemporary interpretation of the local vernacular. This may include the use of innovative or contrasting materials appropriate to the design.
- In line with broader sustainability aims, materials and labour **should** be sourced locally where practicable, but this **should not** be at the expense of ensuring the specification of the high-quality materials and workmanship needed to deliver durable architecture.
- The palette of materials employed **should** be characterised by predominantly warm/earthy colours.
- The use of more than one brick colour/type on any building is generally discouraged, except where contrasting brick patterns are used for decorative purposes.
- “Heavy” materials at the base/ground floor **should** be used to emphasise the impression of a solid base.
- Proposed brick specification **should** come early in the design pre-app process as RMAs evolve, sample panels to be constructed for the Master Developer and LPA to review.
- Detailing **should** be used on Landmark Buildings, marker building or key frontages to create interest and aid wayfinding.
- Materials **should** be applied consistently: along a row of terraced dwellings or linked dwellings, including dwellings linked by garages; and on both sides of a street within a parcel.
- Walls to outbuildings (including garages) **should** be constructed from the same primary wall material as the dwelling with which they are associated.

6.8 Application of Materials

Permitted Materials Palette					
Roof Materials					
	Grey natural slate or reconstituted slate tile	Red clay tile or concrete plain roof tile	Green / brown roofs	Bitumen (flat roof only)	Metal - e.g. zinc, copper and lead.
Primary Wall Materials					
	Red Brick	Multi-stock Red Brick	Brown Brick	Multi-stock Buff Facing Brick	Multi-stock Light Grey Brick
Secondary Wall Materials					
	White facing brick (accent material only)	Black weatherboarding (accent material only)	Natural weatherboarding (accent material only)	Red clay tile or concrete plain roof tile	
Windows and Doors					
	Grey metal / compo	Dark grey	Grey metal / compo (contemporary bay)	Grey metal / compo (contemporary dormer)	Bronze
Detailing					
	Grey metal railings (balcony detail)	Grey perforated metal (balcony detail)	Toughened glass (balcony detail)	Grey standing seam (canopy detail)	Natural timber (canopy detail)
					
					Grey sheet metal (chimney design)

Note: Alternative colours for windows and balconies may be acceptable if proposals can demonstrate a coherent and complementary material strategy in the overall architectural composition of the building.

Note: The use of these materials **must** be considered against the building regulations and guidance in place at the time of specification in relation to the spread of fire. Insurers and warranty providers **should** also be consulted.

Chimneys **should** be constructed in the same material as the primary elevation, however metal chimneys may be used on contemporary buildings.

6. Residential Built Form

6.9 Household Utilities & Waste

Household Utilities Design Principles

The installation of household utilities infrastructure **must** not compromise the visual quality of the dwelling and street scene.

Key Design Principles:

- Meter boxes **must not** be visible from the public realm. This **should** be achieved through locating boxes on side elevations or within recessed entrances where possible. The colour **must** complement the house material.
- Pipes, flues, vents, meters and utility housings **must** be architecturally integrated and **should** align with adjacent façade features and colours to minimise visual impact from the public realm. This includes positioning meters on flank walls within 2m of the front face of the house on all detached, linked and semi-detached houses wherever practicable.
- Pipework and cables **should** be hidden from view from the public realm.
- For detached, semi-detached and end-of-terraced properties, meters **should** be located on side elevations within 2m of the front face of house.
- Positive measures **must** be introduced to conceal meters and housings associated with incoming services electric, broadband network terminations points etc.) from view from the public realm. Such measures **must** include:

- Positioning of meters on flank within 2m of the front face of house on all detached, linked and semidetached houses wherever practicable;
- Selection of colours to minimise visual impact and contrast with the face of building against which they are positioned.

Heat Pumps

Designers **should** ensure that heat pumps are not positioned in locations that are visible from the public realm. Applicants **must** demonstrate consideration towards eliminating impact of heat pumps on amenity.

The following **must** be considered in positioning the heat pump:

- The type of heat pump which **should** be used (ground/ air/water heat pumps) and the system's respective spatial requirements i.e. garden size and plant room size for Ground Source Heat Pump or clearances for Air Source Heat Pump.
- Manufacturer's guidance for optimum efficiency.

In the case of Air Source Heat Pumps where external installation is required, they **must**:

- Be easily accessible for servicing or maintenance.
- Be as close to the dwelling as possible to reduce length of pipework and associated heat loss.
- Consider noise impact on the adjacent room as well as on neighbouring dwellings.

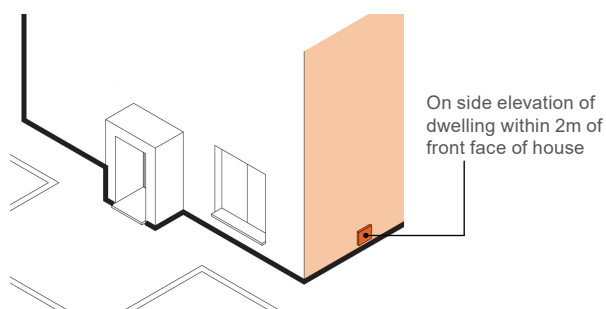
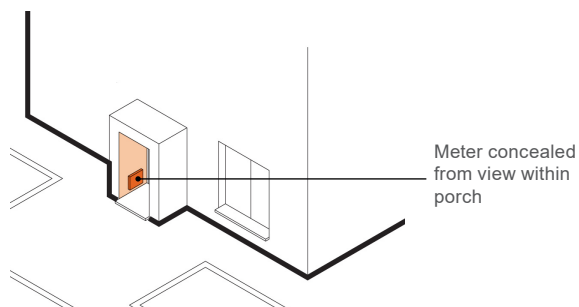
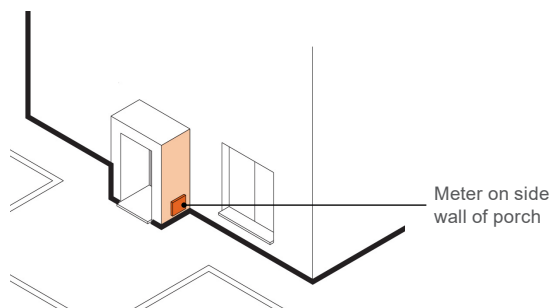
- Be installed to the rear of the dwelling, away from the public realm, where possible.
- Be concealed behind a solid boundary between private amenity space and public realm, if positioned to the side of the dwelling, if the rear is not an option.
- Be enclosed (on all sides except the front) within a robust structure that is well-integrated within the design of the dwelling it serves, if positioned to the front of the dwelling and only if all other options are demonstrably not feasible. Enclosures **must** be sized to manufacturer's specified clearances to ensure efficient operation of the system.



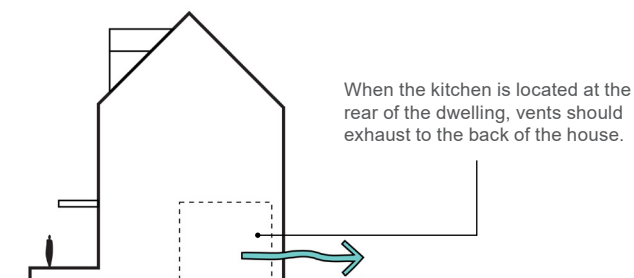
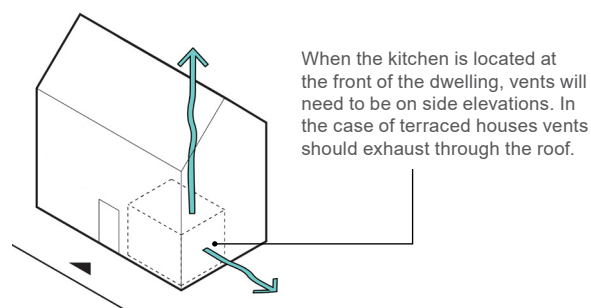
Example of a well concealed air source heat pump

6.9 Household Utilities & Waste

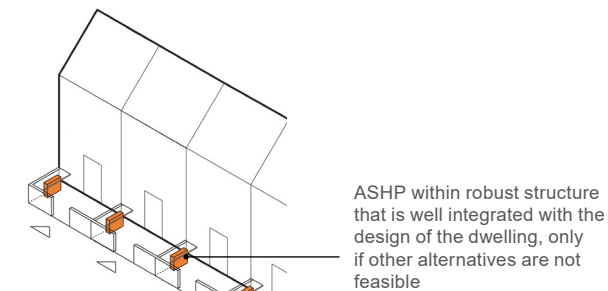
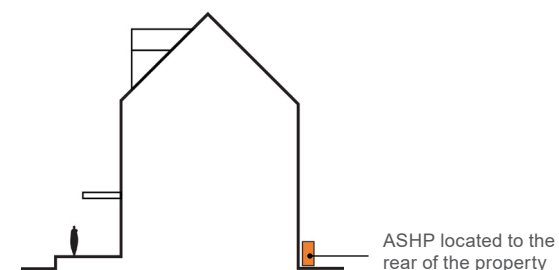
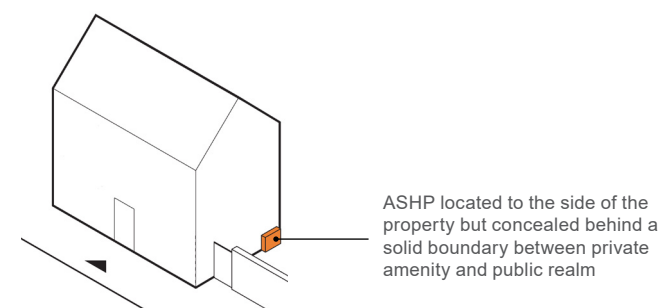
Acceptable Meter Location Examples



Pipes, Flues and Vents



Heat Pumps



6. Residential Built Form

6.9 Household Utilities & Waste

Accommodating Bin Storage & Waste

The storage and collection of household waste **must** be integral to the layout of all development so as not to detract from the quality of the built environment. All household waste storage and collection facilities **must** comply with:

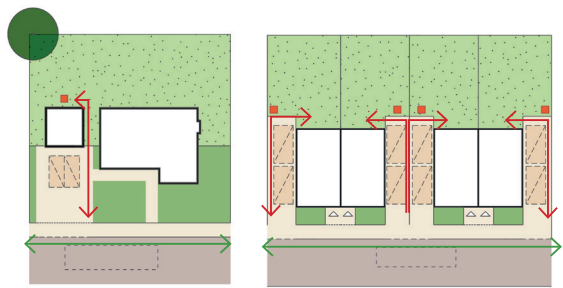
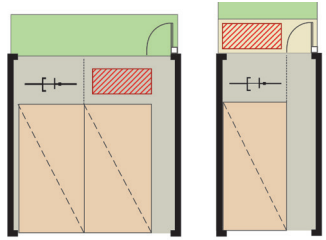
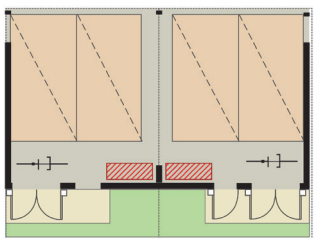
- Building Regulations H6
- East Herts Sustainability SPD, adopted by EHDC in March 2021.
- East and North Herts Shared Waste Service Waste Storage & Collection Guidance For Developers 2024

Key Design Principles:

- Bins provided to houses **should** be stored out of sight from the public realm during non-collection days. To achieve this, appropriately sized storage facilities **must** be provided, which are easily accessible for users during non-collection days.
- Bins provided to service flats **must** be stored in well-designed and unobtrusive waste storage areas that discourage anti-social behaviour. Bins in communal bin stores **should** be manoeuvrable to the collection vehicle without the need to move other bins; this **should** therefore also give sufficient access space for residents in wheelchairs. The bins **must** be stored within stores that have secure external doors which can be locked on non-collection days.
- Accessible routes **must** be provided for occupants to wheel bins to collection points during collection day.
- Collection points **must** be located within close proximity to the public realm for ease of collection.
- Collection points **must** be located in a shaded position, away from windows and in a well-ventilated area.
- Access to external storage areas **should** be at a distance of no more than 30m (excluding any vertical distances) from the private entrance door to the property. Residents **should not** be required to move their waste receptacles more than 25 metres to a collection point, (usually kerbside) in accordance with Building Regulations Approved Document H Guidance.
- In all instances pull distances from the storage or collection point to the collection vehicle **should not** exceed 15m for two wheeled bins and 10m for 4 wheeled bins in accordance with BS5906:2005. Where bin stores are proposed in communal apartments or commercial premises that collection operatives will collect bins from these locations.
- Waste storage areas **must** take account of fire risks associated with the storage of waste and any additional risks **should** be mitigated by design. Where waste stores are integrated into the buildings sprinkler systems **should** be considered. Waste storage **must not** present a risk to any escape route in the event of a fire.
- The surface from the bin storage point to the collection point **should** be continuous and level, with no gravel or similar loose materials. It **must** be wide enough to allow easy movement of wheeled bins, at least 1m for two-wheeled bins, with a maximum gradient of 1:12. For flat blocks, there **must** be a hardstanding surface provided at the storage areas and along the route to the collection point.
- Facilities for the separation of food waste **must** be provided.
- Recycling of waste materials **should** be encouraged by the provision of suitably labelled facilities for storage and collection of separated wastes. This capacity **must** be divided to allow for the segregation of residual waste and recycling.
- Space for composting facilities for dwellings with gardens **should** be provided, either in the form of 'home' composting units or wormeries at houses, or garden composting facilities for grounds maintenance activities as part of the developments ongoing maintenance.
- For large scale developments innovative waste management solutions **should** be considered and early consultation with the Council (waste collection authority) is required. For the mixed use areas solutions such as underground bin systems **should** be considered to provide benefits to the streetscape.

The storage and collection strategy will vary between the different types of dwelling. The illustrated configurations on the following page **should** be used as a guide for the storage and collection of household waste. Suggestions as to how bins can be incorporated into car barns are also illustrated. Garage sizes and bin stores **must** increase in size if the dwelling is required to accommodate wheelchair users. If this is required, they **must** meet the latest Building Regulation requirements. The list is not exhaustive, alternative design solutions may be explored and proposed for consideration by EHDC.

6.9 Household Utilities & Waste

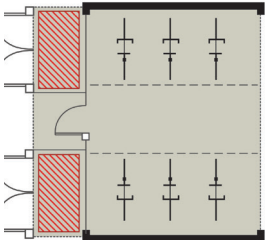
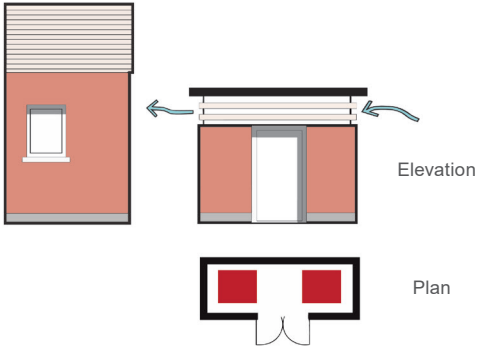
Indicative Bin Storage Solutions		
Typology	Illustration	Description
Detached and Semi-Detached dwellings	 Detached dwellings Semi-detached dwellings	Detached, semi-detached and end-of-terrace houses with side access: Waste storage areas should be provided in the rear garden or an on-plot garage, or otherwise screened or sited out of public view, but readily accessible to the occupiers. The layout must enable sacks or bins to be moved easily to the point where they can be collected, e.g. the roadside or a communal collection point.
Garages		Garages for dwellings should provide a storage area for bins, or bins should be stored against a wall on a paved area within the private amenity space.
Car Barns		Car barns can provide bin storage areas at the rear of the shelter, wheeled to the street front on collection days.

Key:

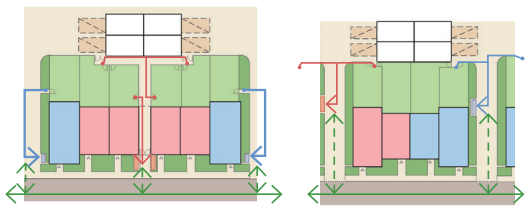
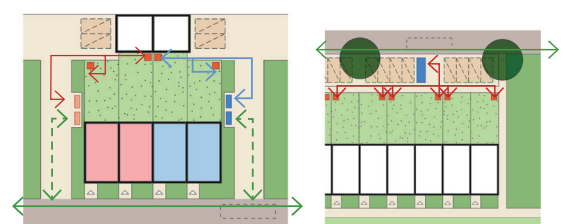
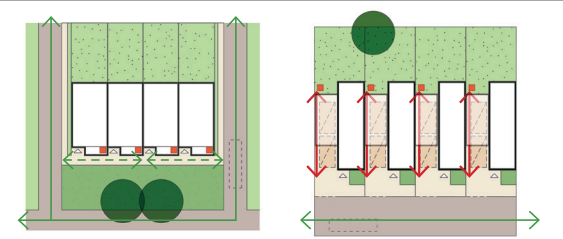
-   Route to collection points (no more than 25m)
-   Collection points
-  Refuse collectors walking route
-  Refuse collection vehicle route

6. Residential Built Form

6.9 Household Utilities & Waste

Indicative Bin Storage Solutions		
Typology	Illustration	Description
Apartments - communal bin store		Apartment blocks should be provided with communal bins which may be stored as part of the bike store within the grounds of the apartment block. Entrances to stores should not face the public realm or building entrances.
External enclosed storage	 Elevation Plan	- Enclosed structures for the storage of refuse must be well-ventilated and provide shade. - Their appearance must be in keeping with the adjacent buildings they serve in terms of design and materiality.

6.9 Household Utilities & Waste

Indicative Bin Storage Solutions		
Typology	Illustration	Description
Terraces - ginnel access	 Ginnel access design (access route through terrace) Side/rear access design (access route to side of homes)	Terraced dwellings can store bins within private amenity space, to be wheeled to a designated collection point on collection day. Collection points must be easily accessible, yet discretely screened from the street.
Terraces - access through rear garden	 Mid-Terraced example 1 - bins accessed through rear garden Mid-Terraced example 2 - rear access to rear parking court/mews street	Mid-terraced houses with rear or side access: Dwellings should include waste storage within rear gardens and private amenity space readily accessible to both occupiers and the collection point.
Terraces - internal access	 Terraced example 3 - bins concealed within front elevation Linked Terraced example 4 - bins accessed through linked component of the dwelling	- Mid-terraced houses without rear or side access must have bins concealed within the front elevation with the storage integrated as part of the design of the architectural elevation. - If the mid-terraced houses are of a linked typology, the design must allow space for bins to be accessed through the linked component of the dwelling.

Key:

-  Route to collection points (no more than 25m)
-  Collection points
-  Refuse collectors walking route
-  Refuse collection vehicle route

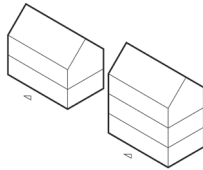
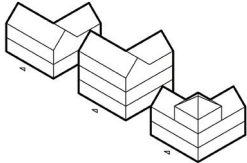
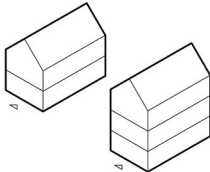
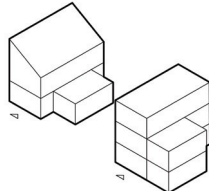
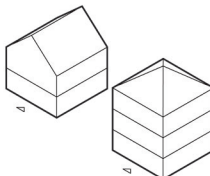
6. Residential Built Form

6.10 Dwelling Typologies Library

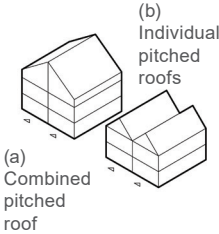
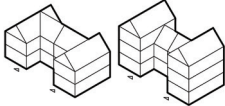
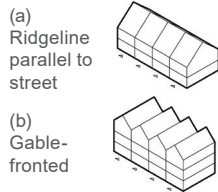
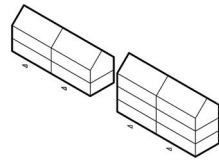
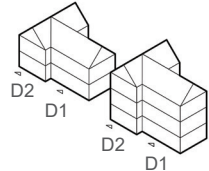
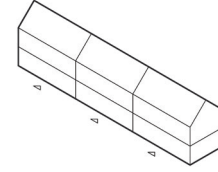
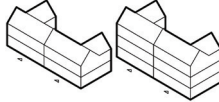
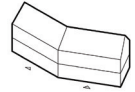
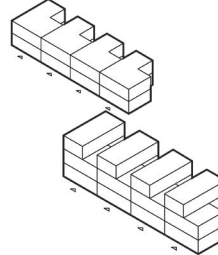
The appropriate dwelling typologies for residential development are described here.

The Frontage Character pages in *Section 6.4* set out the appropriate dwelling types for the frontages along each parcel edge. In addition to the described dwelling typologies, innovative typologies can be submitted for consideration.

An additional 0.5 storey may be acceptable subject to context and setting on every dwelling typology as long as the building height accords with the OPP Building Height Parameter Plan (PP6).

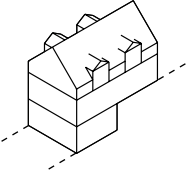
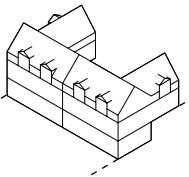
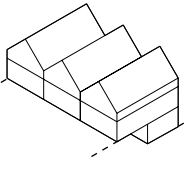
Detached Dwelling Typologies			
Typology	Description	Typology	Description
D1 - Wide Frontage 	- The principal frontage width must be greater than the depth of the primary building form. - The principal frontage should be more than 8m wide. - The ridgeline must be parallel to the principal frontage.	D4 - L-Shaped/Corner House 	- The dwelling must have two principal frontages at 90 degrees to one another. - Both principal frontages should be more than 8m wide.
D2 - Narrow Frontage 	- The principal frontage width must be less than the depth of the primary building form. - The principal frontage should be less than 8m wide. - The ridgeline must be perpendicular to the principal frontage.	D5 - Linked Detached 	- The dwelling must comprise a primary form and a secondary linking form. - The volume of the secondary building form should be less than 60% of the volume of the primary built form. - When the secondary building form includes a garage, the overall frontage of the dwelling should be more than 7m wide.
D3 - Villa 	- The principal frontage width should be between 90-110% of the depth of the dwelling. - The principal frontage should be more than 8m.		

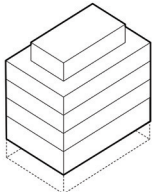
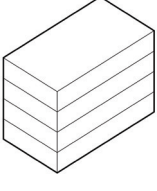
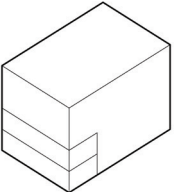
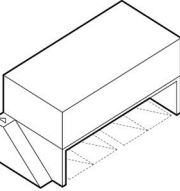
6.10 Dwelling Typologies Library

Semi-detached Dwelling Typologies				Terraced Dwelling Typologies	
Typology	Description	Typology	Description	Typology	Description
SD1 - Narrow Frontage 	- The principal frontage widths must be less than the depth of the primary building forms. - The principal frontages should be less than 8m wide.	SD4 - H-Shaped 	- The dwellings must have two principal frontages at 90 degrees to one another. - Two dwellings must be attached to form an H-shape.	T1 - Narrow Frontage 	- D2 narrow frontage type forming a terrace. - Ginnels should be used to improve access to bins and bikes stored within rear gardens.
SD2 - Wide Frontage 	- The principal frontage widths must be greater than the depths of the primary building forms. - The principal frontages should be more than 8m wide. - The ridgelines must adjoin and be parallel to the principal frontages.	SD5 - T-Shaped 	- The T-shaped typology consists of a wide frontage (D1) and a narrow frontage (D2) adjoined. - The wide frontage unit's principal frontage should be more than 8m wide. - The ridgelines must adjoin and be perpendicular to each other. - The adjoining typologies must have the same roof pitch.	T2 - Wide Frontage 	- D1 wide frontage type forming a terrace. - The ridgelines should adjoin and be parallel to the principal frontages. - Ginnels should be used to improve access to bins and bikes stored within rear gardens.
SD3 - U-Shaped 	- The dwellings must have two principal frontages at 90 degrees to one another. - Both principal frontages should be more than 8m wide. - Two dwellings must be attached to form a U-shape.	SD6 - Cranked 	- The principal frontage widths must be greater than the depth of the primary building forms. - The principal frontage should be more than 8m wide. - The ridgelines must adjoin and be parallel to the principal frontages. The dwellings should be cranked at an angle of between 30-45 degrees.	T3 - Stepped / L-Shaped 	- D5 linked detached frontage type forming a terrace. - Ginnels should be used to improve access to bins and bikes stored within rear gardens.

6. Residential Built Form

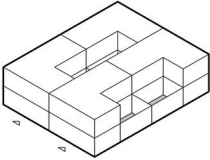
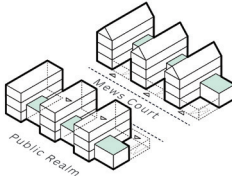
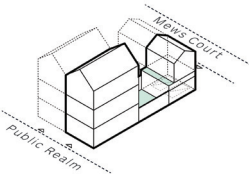
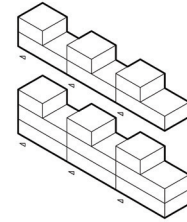
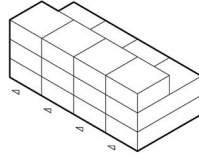
6.10 Dwelling Typologies Library

Split-Level Dwelling Typologies	
Typology	Description
SL1 - Side Stepping 	The dwelling should be orientated with its longer axis approximately perpendicular to the contours of the slope, stepping from 1.5 to 2.5 storeys.
SL2 - Front/Rear Stepping 	The dwelling should be orientated with their long axes approximately parallel to the contours of the slope, with frontage facing either up or down the slope.
SL3 - Terraced Stepping 	Terraced dwellings should be arranged along the contour line, with frontage facing either up or down the slope.

Flats Typologies	
Typology	Description
F1 - Mixed-use flat block 	- The block must be at least 3 storeys. - The internal layout should not include single-aspect, north-facing flats. - Mixed-uses must be provided at ground level.
F2 - Typical flat block 	- The block must be at least 3 storeys. - The internal layout should not include single-aspect, north-facing flats.
F3 - Duplex 	- A flat which is distributed over two storeys. - A private entrance must be provided directly from the street at ground level. - The duplex flat must not be single-aspect, north-facing.
F4 - Coach house / mews 	- Accommodation must be provided above garages within a mews or parking court arrangement. - The flat must be provide natural surveillance to the mews or parking court. - The flat should be no more than 1 storey in height.

6.10 Dwelling Typologies Library

Urban Dwelling Typologies

Typology	Description	Typology	Description	Typology	Description
U1 - Courtyard 	- Courtyards are created using L-shaped building footprints, connected in back-to-back terraces. - The principal frontages should be more than 7m wide. - Courtyards should be more than 4x3m in size.	U4 - Dual aspect courtyard 	- The dwellings must comprise a primary and a secondary form. - The primary forms must be 3 storeys. - The secondary forms may be omitted provided that dwellings are linked by solid walls. - The primary amenity spaces for the dwellings must be provided as a large terrace and/or courtyard space or side garden. - The dwellings must be dual-aspect to provide natural surveillance to both mews courts and streets, with the primary entrances from the mews courts. - Parking provided at surface level in mews courts must accord to the parking typology rules as set out in the parking typologies library. - Additional on-plot parking should be used to ensure mews/ courts are not car-dominated spaces.	U5 - Townhouse with annexe 	- The dwellings must comprise a primary and a secondary building. - The primary building must be the main dwelling and addresses the public realm. - The primary building must be 3 storeys. - The secondary building must be located in the rear and address the mews courtyard. - The secondary building must be within the same ownership as the main dwelling. - Parking must be provided at ground level of secondary building.
U2 - Side terrace 	- The principal frontage widths must be greater than the depths of the primary building forms. - The principal frontages should be more than 8m wide. - The primary amenity spaces for the dwellings should be provided as large terraces at first or second floor levels occupying at least 40% of the footprint.				
U3 - Rear terrace 	- The principal frontage widths must be less than the depth of the primary building forms. - The principal frontages should be less than 8m wide. - The primary amenity spaces for the dwellings should be provided as large terraces at first or second floor levels occupying at least 40% of the footprint.				

6. Residential Built Form

6.11 Boundary Typologies Library

Boundary Typologies

Boundary typologies play an important role in setting a building or property into a street scene. The type of boundaries will depend on the character area and setback of the building from the public realm.

The coherence of front boundaries of built edges addressing primary streets and spaces is a key objective. The plan above defines the boundary typologies of a dwelling. The following section gives further detail of these principles.

The Boundary Typologies table sets out the boundary typologies for use within Village 1. Reserved Matters Applications **must** clearly describe the range of boundary typologies proposed. Boundary typologies **must not** be used if they are not permitted within the relevant Frontage Characters.

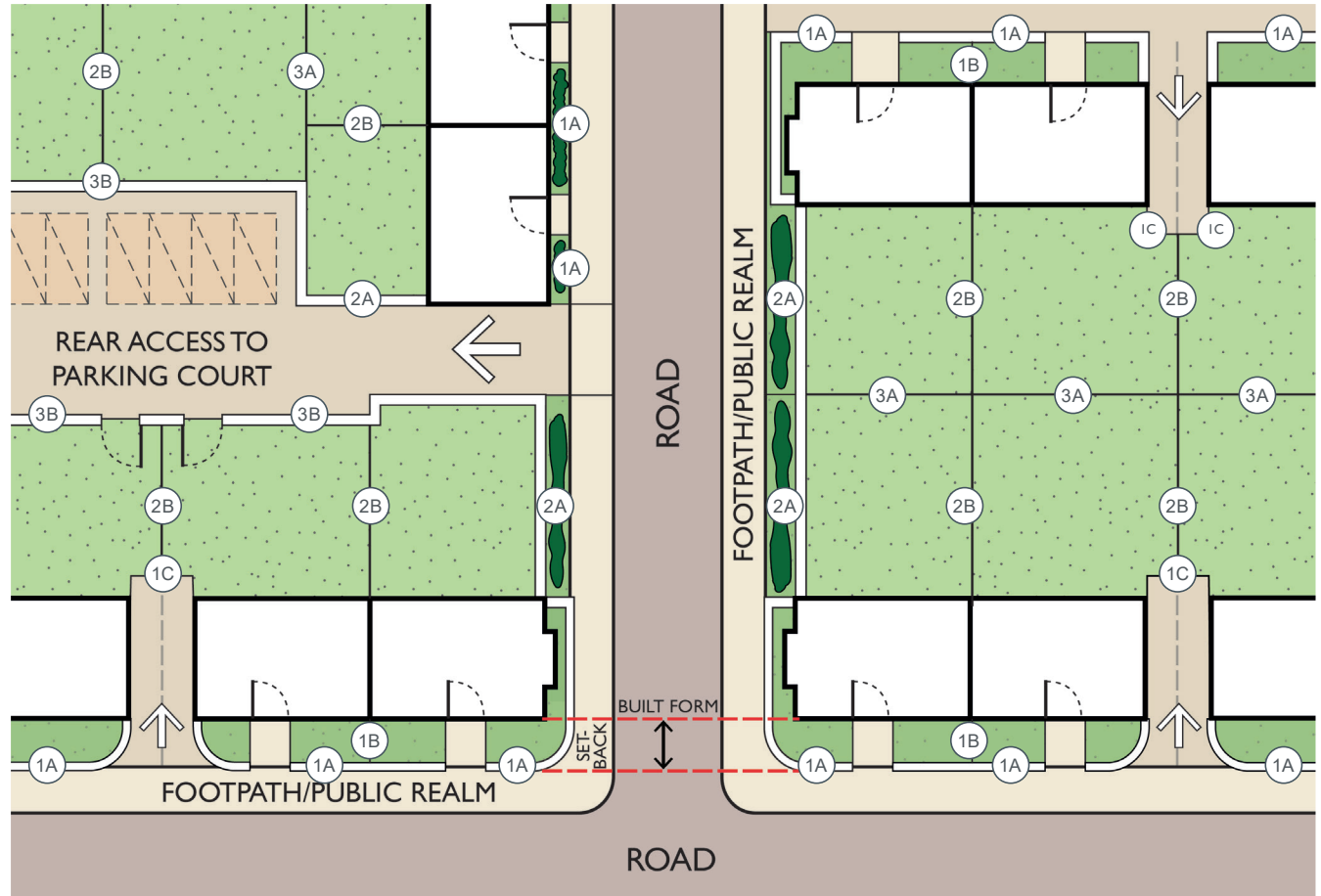


Illustration of detailed principles for boundary treatments

6.11 Boundary Typologies Library

Front Boundaries

1A Front boundary addressing public realm 1B Front boundary to demarcate property line

- Boundary typology **must** be appropriate to relevant Frontage Character. *Refer to Section 6.4 on Frontage Characters.*
- Front boundaries **must not** be more than 1.2m high.
- Close board fencing **must not** be used in front gardens/setbacks (1A) or to demarcate property boundaries (1B).
- Gates for pedestrian or vehicular access **must** be coordinated with the adjoining front boundary treatment.

1C Front boundaries as linking elements between dwellings

- Brick walls or close board fencing may be used as a linking elements between two dwellings (1C) but **must** be setback from the face wall of the dwelling by a minimum of 1m.

Side Boundaries

2A Side boundary facing public realm

- Brick walls **must** be used as side boundaries which address the public realm or mews area, as a continuation of the built form (2A). The brick wall **must** be between 1.8-2.1m high and **should** match the dwelling served, including the bonding and mortar details. Coping stones or 'brick on edge' details are considered appropriate. Walls **must** be of a consistent height.
- Additional soft verges of minimum 1.5m depth **should** be provided to walls along garden boundaries which flank a footpath/cycleway. This may reduce to 1m for footpaths along minor streets and lanes. To avoid long runs of blank walls, these **should** be planted and could include climbers and/or trellis to walls.
- For mews streets and urban courtyards, it may be acceptable to omit side boundary landscaping.

2B

Side boundary between dwellings

- Timber fencing **must** be used as boundaries between gardens (2B). These **must not** be more than 1.8m in height.

Rear Boundaries

3A Rear boundary between back gardens or central courtyard

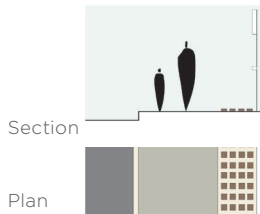
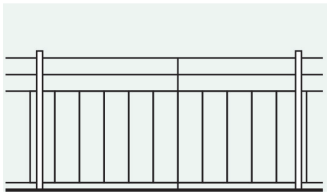
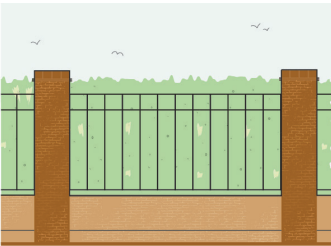
- Timber fencing **must** be used as boundaries between gardens (3A). These **must not** be more than 1.8m in height. Timber **should** be stained using a suitable and sustainable treatment.

3B Rear boundary between back gardens and rear access parking courts or public realm

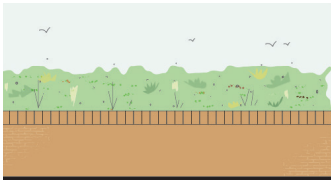
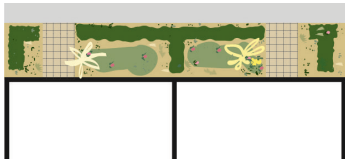
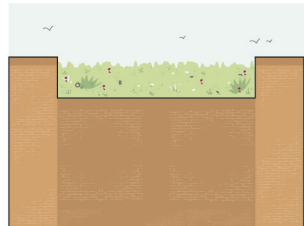
- Brick walls **must** be used along rear boundaries which back onto courtyard parking areas or public realm (3B). The walls **must** be between 1.8-2.1m high with a semi-permeable section (e.g. a trellis or other treatment with similar effect) from 1.5m upwards to create a level of surveillance.
- Pedestrian access to parking courts via rear boundaries **must** be provided via gates for dwellings that are allocated parking in this area. Planting areas **should** facilitate this access.
- Planting against walls in parking courts **must** be in beds of minimum depth 1m wide.
- Rear parking courts **must** benefit from natural surveillance.

6. Residential Built Form

6.11 Boundary Typologies Library

Front Boundary Typologies			
Typologies	Illustration	Description	Notes
B1. No Boundary	 Section Plan	- Built edge must be set back less than 1m from back of footpath. - Hard surface finish preferable for urban characters. - Material/surface finish must be contrasting to adjoining pavement material to differentiate ownership and demarcate defensible space.	
B2. Urban Style Railing		- Built edge must be set back a minimum of 1.5m from back of footpath. - A consistent paint colour must be used along a railing or street scene – a lead and follow approach must be applied. - Soft landscape must allow for shrub planting. Must be contemporary and in character with the street scene. - Bow top railings must not be used.	Boundaries between front gardens of adjacent dwellings must be created through the same design of urban-style railing or ornamental hedge.
B3. Railing on Low Wall		- Built edge must be set back a minimum of 1.5m from back of footpath. - Brick wall with brick piers must match dwelling detailing. - A consistent paint colour must be used along a railing or street scene – a lead and follow approach must be applied. - Privacy zone – hard or soft landscape finish, should allow for shrub planting maintained at an approximate height of 1.5m. - Gates must match railings.	Boundaries between front gardens of adjacent dwellings must be created through a same low height brick wall with the same railing or ornamental hedge.
B4. Railing & Hedge		- Built edge must be set back a minimum of 1.5m from back of footpath. - A consistent paint colour must be used along a railing or street scene – a lead and follow approach must be applied. - Clipped hedge must be of continuous species. - Gates must match railings.	Boundaries between front gardens of adjacent dwellings must be created through the same railing or ornamental hedge.

6.11 Boundary Typologies Library

Front Boundary Typologies			
Typologies	Illustration	Description	Notes
B5. Low Wall & Ornamental Hedge		- Built edge must be set back a minimum of 1.5m from back of footpath. - Low brick wall must include brick coping, clay tiles creasing. - Clipped hedge must be of continuous species. - Bricks must match dwelling.	Boundaries between front gardens of adjacent dwellings must be created through the same height low-brick wall with hedge or ornamental hedge only.
B6. Ornamental Hedge		- Built edge must be set back a minimum of 1.5m from back of footpath. - Post and wire fence must be integral to the hedge while it establishes.	Boundaries between front gardens of adjacent dwellings must be created through ornamental hedge of similar species and height.
B7. Planted Zone	 Plan	- Built edge must be set back a minimum of 1.5m from back of footpath. Must have a low clipped hedge with shrub planting. - Grass or gravel or loose materials must not be used as a surface cover except mulch for weed suppression.	Boundaries between front gardens of adjacent dwellings must be created through ornamental hedge of similar species and height.
B8. Wall		- Built edge must be set back a minimum of 1.5m from back of footpath. - Bricks must match dwelling. Must have brick capping on clay tile creasing or cast stone coping. - Gates must be steel vertical bars painted black. - Typology must not be utilised for front boundaries onto pocket parks and incidental green space. - Planting should be added in front of brick walls to soften appearance.	Boundaries between front gardens of adjacent dwellings must be created through the same design of wall, urban style railing or ornamental hedge.

6. Residential Built Form

6.12 Parking Typologies Library

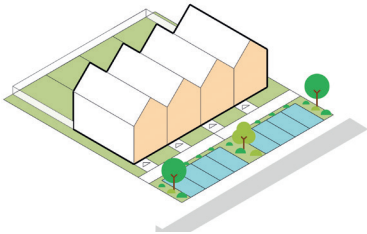
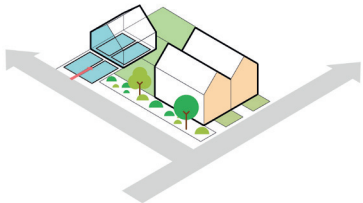
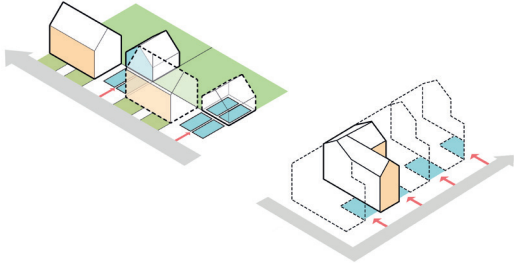
The table on the following page sets out the full list of potential parking typologies for use within Village 1.

The Frontage Character pages in *Section 6.4* set out the appropriate boundary typologies permitted along labelled edges of residential development on the V1MP Regulatory Plan. Reserved Matters Applications **must** adhere to the principles set out in the Frontage Characters and to the descriptions of all typologies selected. Parking typologies **must not** be used if they are not permitted within the relevant Frontage Character.

Parking within the development **must** be designed so as not to dominate the street scene or obstruct movement of pedestrians and cyclists. Therefore, a variety of parking solutions **must** be used throughout Village 1.

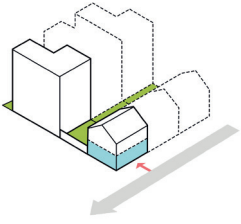
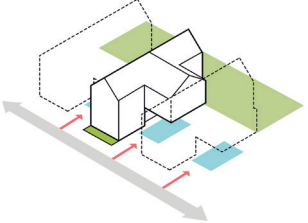
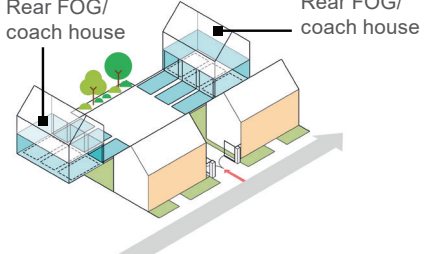
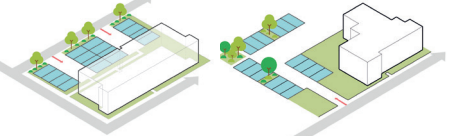
Parking provision **must** be accessible for all users, therefore if spaces are required for M4(2) and M4(3) dwellings, they **must** meet the wider dimensions as specified in Building Regulations.

6.12 Parking Typologies Library

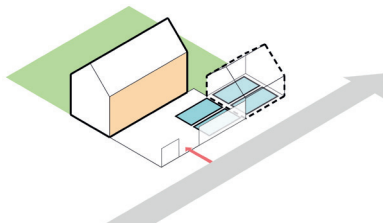
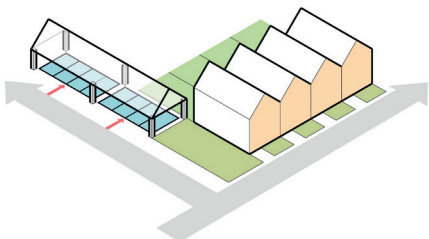
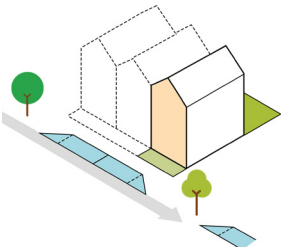
Parking Typologies		
Typology	Illustration	Description
P1 - On-plot frontage		• Must serve no more than 8 dwellings on any one grouping. • There must be no more than 4 spaces in a row before a landscape break. The minimum landscape break must be a minimum of 1.5m wide to accommodate tree or specimen shrub planting and could include opportunities for rain gardens. • Shrubs or trees must be positioned to avoid car door damage to plant stems. • Hedging and landscape must be used to assist in defining the spaces. • The layout of the parking must be formed to create a rhythm to the landscape. • Separation distance between tree planting and dwelling must be subject to the size and specification of the tree species. • Hard landscape treatments must include sufficient space to allow easy movement around parked cars. • A footpath must be provided between the parking bays and the privacy strip/front garden of properties. • Dwellings must have minimum 1m deep privacy strip/front garden located between the dwelling and frontage parking space.
P2 - On-plot corner		• A maximum of 1 double garage or two single garages must be provided. • No more than 2 tandem spaces must be provided in front of a garage.
P3 - On-plot between dwellings		• Parking spaces must be set behind the building line. • Tandem parking must not project beyond the building line. • Windows must be provided on flank elevations from habitable rooms overlooking parking/driveways. • No more than 2 tandem spaces must be provided between dwellings.

6. Residential Built Form

6.12 Parking Typologies Library

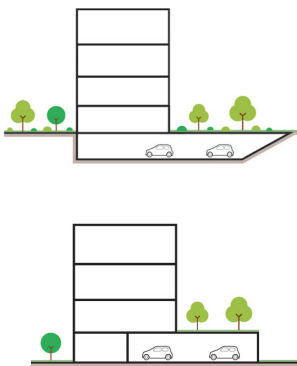
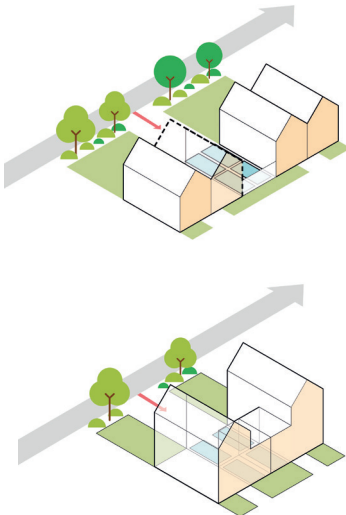
Parking Typologies		
Typology	Illustration	Description
P4. Mews		- Parking must be overlooked for security through natural surveillance. - For continuous mews, proposals must demonstrate good levels of activity on the street to ensure sufficient ground floor natural surveillance.
P5. Front Access Drive-Through		- An openable screen or gate with visual permeability must be used to access parking spaces to ensure that gardens are not open to the street. - Solid garage doors must not be used for drive-through parking spaces (except for a flat over garage where this will be permitted).
P6. Rear Parking Courts	A.  Rear FOG/coach house Rear FOG/coach house B. Alternative layouts for apartments: 	- Courts should serve no more than 12 parking spaces. For apartment blocks or areas serving the STC this may be increased, but courts must be sensitively designed with a strong framework of landscape planting. - Tandem parking within parking courts should be discouraged unless adequate manoeuvring space can be demonstrated. - Enclosure must be provided to define the access, through the use of walls. - Courts must be designed as a whole to create a coherent space. - Courts should include an area of space where a medium or large tree species can be located in view from the street. The separation distance between tree planting and dwelling must be subject to the size and specification of the tree species. - There must be a maximum of 4 parking spaces in a row before landscaping occurs. - FOGs/coach houses must accommodate on-plot storage of bins and bikes for the host dwelling. - FOGs/coach houses should not include garage doors to ensure parking space will be retained in perpetuity. - Courts should consider designs that can allow for future conversion of bays into amenity space - All rear parking courtyards must adhere to the 'Principles for Parking Court Design' on page 219. - Refer to the Movement Key Design Principles in Section 7.3 for guidance on mixed use parking.

6.12 Parking Typologies Library

Parking Typologies		
Typology	Illustration	Description
P7. Forecourt		- Forecourts must only be used for large detached dwellings only. - The front boundary must be defined by a solid wall (regardless of the permitted boundary typologies in each Frontage Character).
P8. Detached Car Barns		- There must be no more than 8 spaces in a single structure. - Natural surveillance must be provided from proximate dwellings. - Any fence or wall should be at least 1m from the end of the carport.
P9. On-Street		- There must be no more than 3 spaces in a row before landscaping occurs, unless located within the mixed-use area. - Separation distance between tree planting and dwelling must be subject to the size and specification of the tree species.

6. Residential Built Form

6.12 Parking Typologies Library

Parking Typologies		
Typology	Illustration	Description
P10. Basement/ Semi- basement/ Podium		• Must be used below apartment blocks only. • Must be secured by gates/roller shutter doors. • Podium parking must have a landscaped deck. • Covered parking areas must be naturally ventilated and secure. • Unattractive vents in the public realm must be avoided.
P11 - On-Plot Between Dwellings Accessed from Rear		• To be used when parking spaces must be accessed from the rear to allow for a continuous frontage. • Parking must be set behind solid connecting wall between dwellings to separate from the public realm. • Spaces must be designed so as not to allow for tandem parking projecting beyond the building line. • Windows must be provided on flank elevations from habitable rooms overlooking parking/driveways.

6.12 Parking Typologies Library

Principles for Parking Court Design

All RMAs that include rear parking courtyards **must** adhere to the mandatory design principles listed on this page. Unless enclosed by automatic gates that restrict access, courtyards **must** be considered part of the public realm. Rear parking courtyards **must** therefore be designed as good quality landscape-led public spaces.

Key Design Principles:

- 1 Courtyards **should** be limited to a maximum of 12 spaces (including any garage and/or carport/parking barn spaces). This excludes apartment blocks where more than 12 spaces may be appropriate.
- 2 Clear sightlines **must** be provided into and within the courtyard. Hidden corners or recessed parking bays **must** be avoided. The number of access points **should** be afforded careful consideration, balancing the need for good pedestrian connectivity through and within Village 1 with community safety.
- 3 At least one property **must** be located within the courtyard to offer opportunities for natural surveillance.
- 4 Block surfacing, with parking bays in either: the same block, contrasting block or tarmac. Individual parking bays **must** be discreetly delineated with blocks. Thermoplastic markings (white lining) **should not** be permitted to either number or delineate individual bays.
- 5 All boundaries facing the courtyard **must** be 1.8m high. 1.5m high brick walls **should** have an additional 300mm trellis above, to provide overlooking of the parking court.
- 6 Low-level bollard or street lighting **must** be provided.
- 7 Appropriate and robust landscaping **must** be used to soften the environment, such as trees and hedgerows. Planting buffers separating parking bays **must** be a minimum of 1.5m deep and potentially wider if medium or large tree species are proposed within.
- 8 Planting against boundary walls **must** be a minimum of 1m deep. Planting **must** be carefully placed in a way that does not restrict sightlines.
- 9 Planting **must** be coordinated with the provision of any electric vehicle charging points and cable runs, and **should** include root barriers to protect underground infrastructure from root intrusion.
- 10 Where pedestrian footpaths are provided that connect courtyard parking spaces with the front door of people's homes these **must** be afforded good, clear sightlines and be well-lit.
- 11 Direct access from allocated parking spaces to the front door of their associated home **must** be provided. This may be achieved by the use of ginnels between plots to provide access. Where ginnels are provided, attention **must** be given to preventing crime and antisocial behaviour.

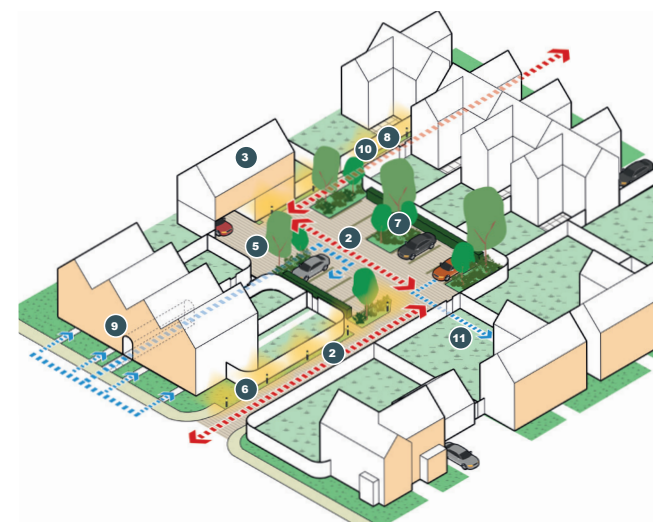


Illustration of detailed principles for parking courts



Parking bays separated and softened with soft landscaping and overlooked



Non-Residential Built Form

Chapter 7

7. Non-Residential Built Form

7.1 Introduction

The Village Centre, centrally located in Village 1 at the intersection of the north-south and east-west sections of the Sustainable Transport Corridor (STC) and the East-West Green Link, will serve as a vibrant hub offering a variety of uses. It will be easily accessible for cyclists, pedestrians, and bus users alike.

By bringing together education facilities, community spaces, retail, employment opportunities, and higher-density housing, the Village Centre will support a diverse range of activities and foster a lively, mixed-use destination. Its pivotal role at the heart of the new community presents a unique opportunity to create a truly exceptional focal point for Village 1.

This chapter of the Design Code sets out the key design principles for the Village Centre. A number of drawings within this chapter illustrate how the area could look and are for guidance only.

In providing design guidance for the Village Centre the following elements are covered:

- Village Centre Urban Design Principles
- Village Centre Landscaping Principles;
- Illustrative Views and Massing
- Mixed Use Design Principles
- Education Urban Design Objectives
- Education Key Design Principles

Land Uses

As per the S106 and Development Specification the following community facilities **should** be provided as part of the Village Centre proposals:

- 3FE Primary School (Collaboration with HCC for the delivery of the school, including nursery provision)
- Up to 8FE Secondary School, including sixth form provision
- Mobility Hub
- Health Centre (if required by the health authority)
- Up to 1,000sqm* multi-functional Community Centre (which may also include library floorspace or provided as a standalone building)
- Up to 460sqm* of dedicated space for Youth Facilities (to be additional to and physically separate from any school building)
- Up to 7,000sqm* of Employment Floorspace
- A Skills Hub of up to 6,500sqm* may be provided as a temporary facility that moves to support the construction process (applicable to all Villages)

**All areas are Gross External Areas (GEA).*

The Village Centre will support other uses to create a high quality and vibrant centre that can serve the daily needs of the new community. The following uses are not fixed and will be determined during detailed design stage(s).

- Retail - for example including a local foodstore / butcher / bakery, pharmacy, estate agent, dry cleaner etc.
- Community cafe / coworking space
- Nursery (Early Years Facility)



High quality seating areas and landscaping



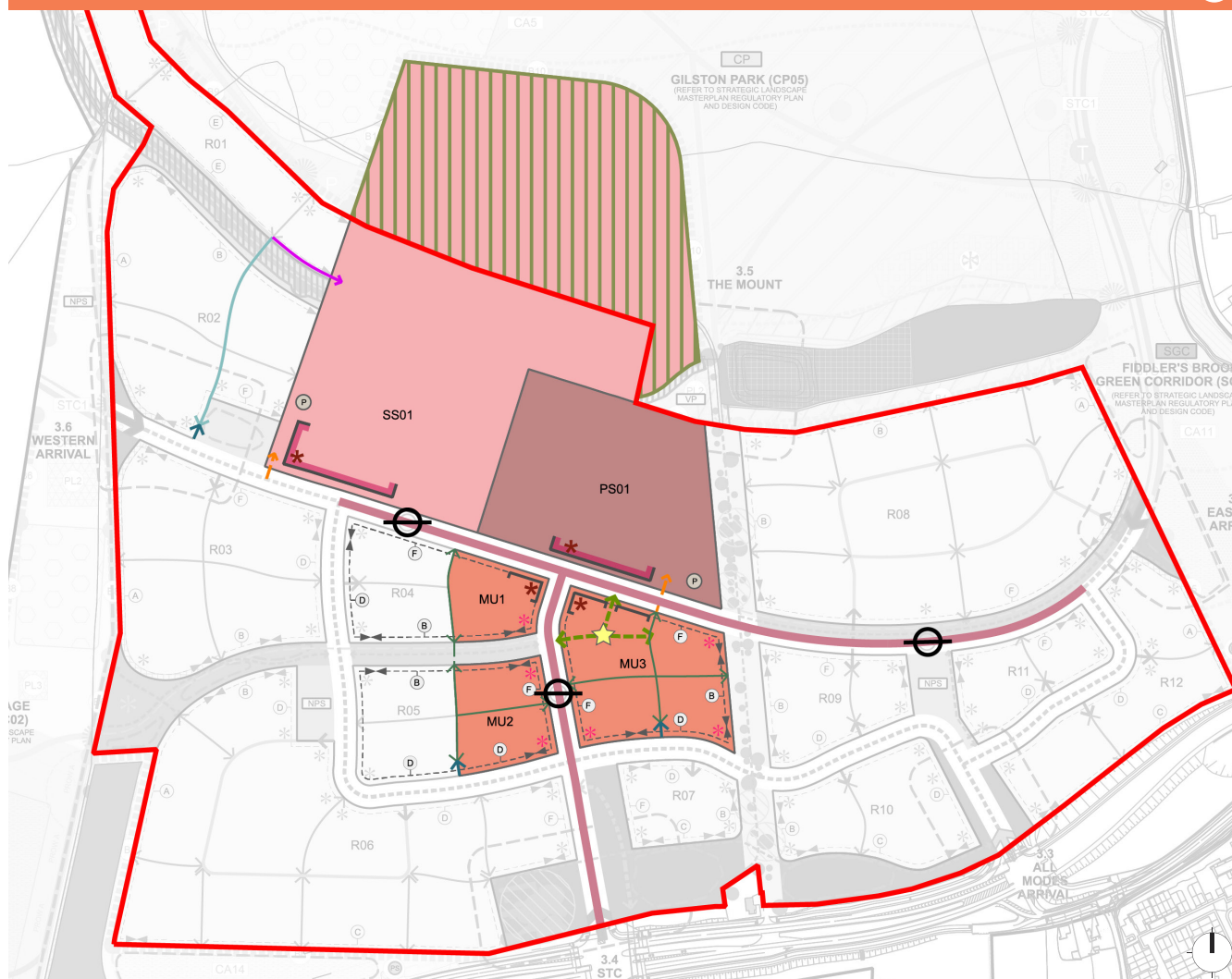
High quality seating areas and landscaping

7. Non-Residential Built Form

7.2 Regulatory Plan

V1MP Regulatory Plan - Non-Residential Built Form

M



Key

Village Centre

- Mixed Use Parcel
- Village Square
- Frontage Character
- Marker Buildings
- Landmark Buildings

Education

- Primary School Parcel
- Secondary School Parcel
- Indicative School Frontage
- Secondary School Sports Pitches

Movement and Access

- Vehicular Route to Schools (Limited Access) (+/- 10m flexibility permitted)
- Emergency & Maintenance access to Secondary School (Indicative location)
- Indicative Location of Parking
- STC (Sustainable Modes Only)
- Indicative Bus Stop locations
- Access Point
- Tertiary Street and Cross Parcel Permeability (indicative alignment)

7. Non-Residential Built Form

7.3 Mixed Uses

Village Centre Servicing

A broad servicing strategy has been agreed with HCC that the STC could be partially used for servicing, except for the section just in front of the primary school. Please see the adjacent indicative Village Centre servicing strategy for reference.

Whilst a broad strategy has been agreed at this stage, a detailed servicing strategy for the commercial and mixed use developments in the Village Centre that come forward **must** be developed during the RMA stages demonstrating how these uses can be effectively serviced using the routes identified. This requirement is in addition to the Delivery and Servicing Management Plan that is required under condition 65.

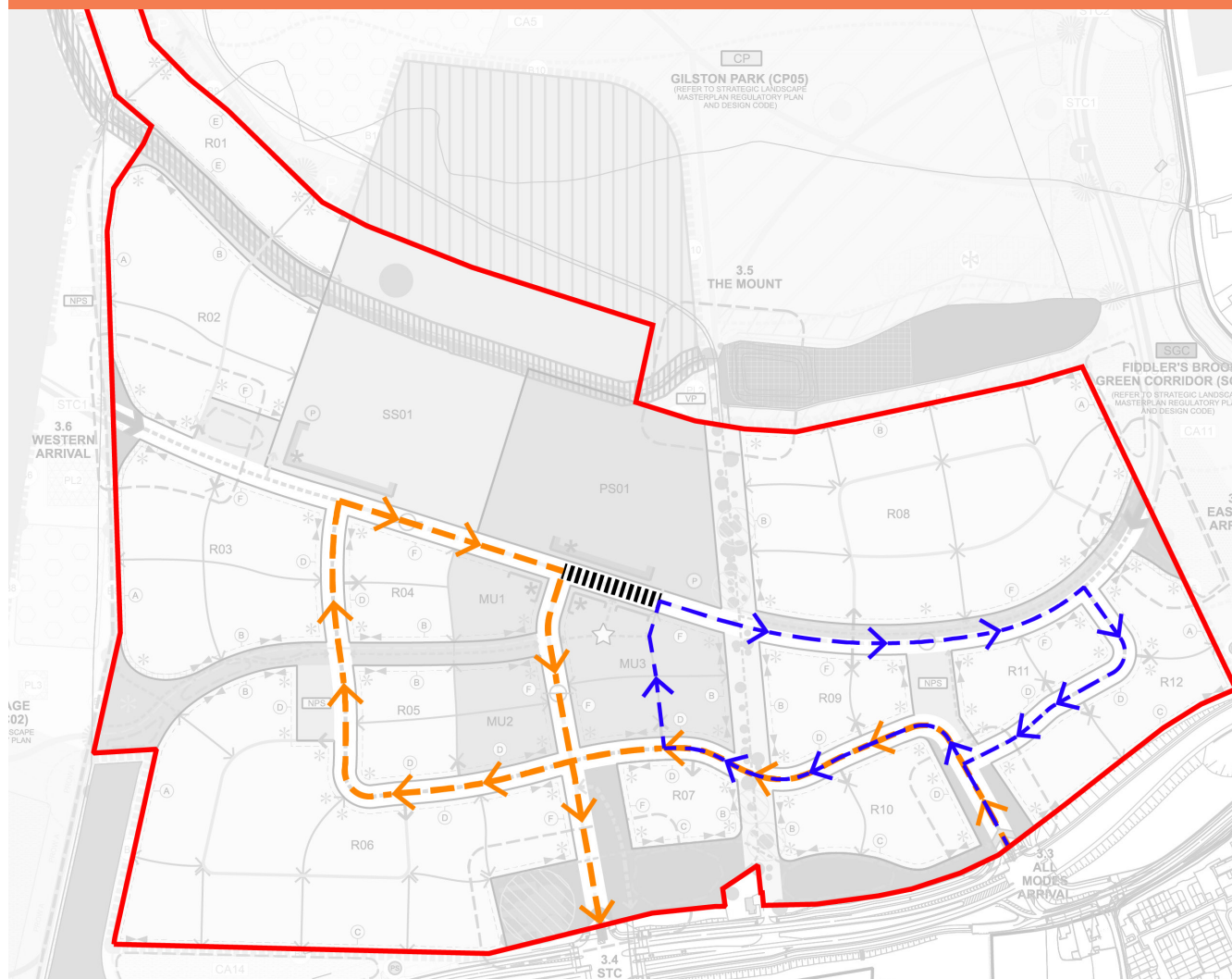
Key Design Principles

- Servicing for the mixed uses **must** be located away from prominent views or elevations. Where this is not achievable and servicing is required to be provided to the front of buildings, marked service areas **must** be discrete and well-integrated into the public realm. Where servicing is provided to the back of buildings they **must** be screened with robust landscaping.
- The layout **must** include elements to restrict vehicular access for deliveries to the surrounding buildings while retaining access for emergency and maintenance vehicles.
- Ancillary structures for servicing and storage **should** be accommodated to the rear of buildings or beneath podium decks where possible and **must not** be located on the frontages to key spaces, unless unavoidable.
- Where short lengths of inactive frontage are unavoidable, design measures **should** be introduced to enhance their appearance.
- Appropriate facilities for refuse and recycling **should** be incorporated ideally located within the building itself or in self-contained refuse compounds. Commercial bin storage **must** be well-screened, safe, secure, accessible and well ventilated.

7. Non-Residential Built Form

7.3 Mixed Uses

Indicative Servicing Strategy



Key

- > **Potential Service Route A**
Service Route A entry via the All Modes Access and exit by the STC Access
- > **Potential Service Route B**
Service Route B entry and exit via the All Modes Access
- ||||| **No Service Access**
No service access in front of the primary school.

7. Non-Residential Built Form

7.3 Mixed Uses

Key Design Principles

Built Form

- Future proposals **must** deliver a Village Centre that exhibits architectural and urban design solutions of exemplary quality.
- A minimum of 3 storey residential dwellings and mixed-use blocks **must** be used to define the Village Centre.
- Landmark and Marker Buildings **should** have increased height (up to 5 storeys).
- Landmark and Marker Buildings **must** terminate long range views, with well-articulated elevations and architectural detailing. Proposals **should** explore elements such as distinct architectural form, roofscapes, glazing, materiality and the use of additional external structures and/or features.
- Built form **must** have a formal, consistent building line, with the main elevation and entrance orientated to face and frame the main street and/or square.
- Within the Village Square, mixed-use blocks with ground floor retail and upper floor residential **must** be dual aspect to overlook both the STC and square.
- *Refer to the V1MP Regulatory Plan and Frontage Characters for details on acceptable residential frontages.*
- *For details on Buildings Heights refer to the Building Heights Parameter Plan.*

Movement

- A network of active travel routes will permeate through the Village Centre. Their alignment **must** respond to the geometry established by STC and the east-west landscape corridor desire lines.
- The main entrance to the Primary School **must** be accessed from a shared surface space that prioritises pedestrians and cyclists.
- Parking **must** be provided to the rear of buildings, confined within perimeter building blocks within well-landscaped parking courtyards, or located within basements and/or under podiums.

Village Square

- The Village Square, located at the heart of the Village Centre, will serve as a key mixed-use destination. It **must** be designed as a versatile space capable of hosting local community events, such as pop-ups, markets and gatherings, reinforcing its role as the vibrant hub of the community.

Layout

- The landscape design **must** encourage social and community engagement by providing flexible spaces for a variety of community uses.
- The landscape design **must** provide high quality hard surfaced spill out spaces associated with the retail and other mixed use built forms.
- The square and its setting **should** comprise a mix of soft and hard surfaced areas (featuring raised planters, planting beds and/or areas of amenity green space). Water features and areas of soft amenity planting **should** be considered in the design of the space.



Well designed and versatile public realm capable of hosting local community events



Spill out space providing activity to the surrounding public realm

7. Non-Residential Built Form

7.3 Mixed Uses

Mobility Hub

- The Mobility Hub **must** be provided near the Village Square to act as an interchange for sustainable and active modes of transport.
- The Mobility Hub **must** provide an opportunity for accessing additional mobility services, community facilities and social interaction, such as cafes, storage lockers, parcel drop offs and last mile delivery services.
- The Mobility Hub **must** serve both the immediate adjacent community as well as a wider catchment area in recognition that residents, visitors and commuters are likely to pass through the hub as part of linked journeys to/from Harlow and the wider Garden Town.
- The Mobility Hub **should** be designed as a single storey pavilion building. Careful consideration **should** be given to its location, size, scale, mass and architecture to ensure it complements the square and the surrounding built form. *Refer to Section 5.10 for further guidance on the Mobility Hub.*

Materials

- The square **must** feature a high quality surface material that contributes to the creation of a distinct landscape character through a carefully selected material palette.
- Preference **should** be given to materials with a low embodied energy and, wherever possible, materials that are locally sourced
- The hard landscaping design of the public realm **should** complement the design and character of the square that reinforces legibility and wayfinding.
- If there are changes in the surface material, these **should** be carefully designed to ensure that a coordinated and complementary finish is achieved,

taking due consideration of any stark changes in geometry, colour, material and/or texture.

- Where there is a change in surface material between adopted and unadopted areas, a suitable type of edging **should** be used to define the extent of adoptable land. *Refer to Hard Landscape Palette in Section 4.14.*

Landscape

- The Village Square **must** be coordinated with the layout of the STC to ensure that visual and thematic connectivity is maintained along its alignment.
- The Village Square **must** respond to adjoining uses, including the Primary School and mixed-use development, with opportunities for spill-out spaces.
- Landscape markers **must** be incorporated into the layout to provide a vertical element. Such features may be art/sculpture, wayfinding, planting etc.
- A forecourt **must** be provided to the front of the school, adjacent to the street, to provide space for safe spill-out and gathering at the entrance.
- Rear parking courts **must** be integrated with landscaping.
- A high quality landscaping material palette **must** be used in the public realm.

Tree Planting

- Trees **must** be planted in appropriately sized pits which provide sufficient rooting volumes and **should** include appropriate pit accessories such as aeration / irrigation pipes and drainage inspection pipes. Structural soils or cellular systems **should** be used, particularly in areas of hard surfacing and **must** be suitable for species size and situation.
- Means of drainage **must** be provided in pits for all street trees to prevent water logging and to aid establishment.
- Feature trees/public art/wayfinding **should** be used to frame and direct views to and through the square.
- Tree Planting selection **should** be carefully selected to take into account of its urban setting, ensuring they are appropriately selected and implemented so that they can effectively mature in urban conditions.

Street Furniture

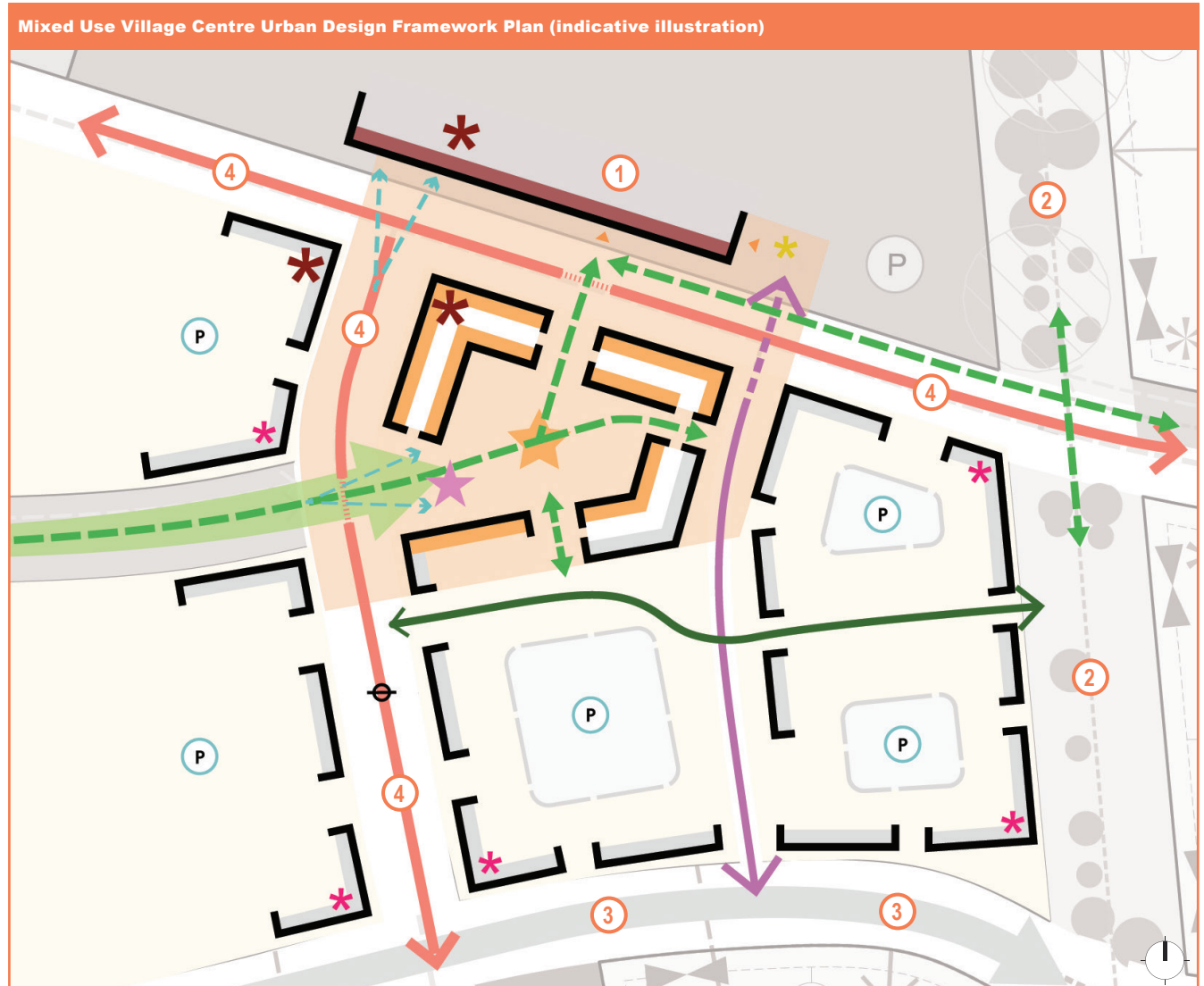
- High quality seating areas and other street furniture **should** be selected and designed to ensure there is a coherent design palette and language with an emphasis on simple, contemporary designs.
- Street furniture, such as seating areas, bike stands, bins and lighting, **should** be strategically placed and coordinated with their surrounding context to ensure their location and appearance complements the functions, maintenance and design of the space.
- All timber used in street furniture **should** be FSC certified.

7. Non-Residential Built Form

7.3 Mixed Uses

Key

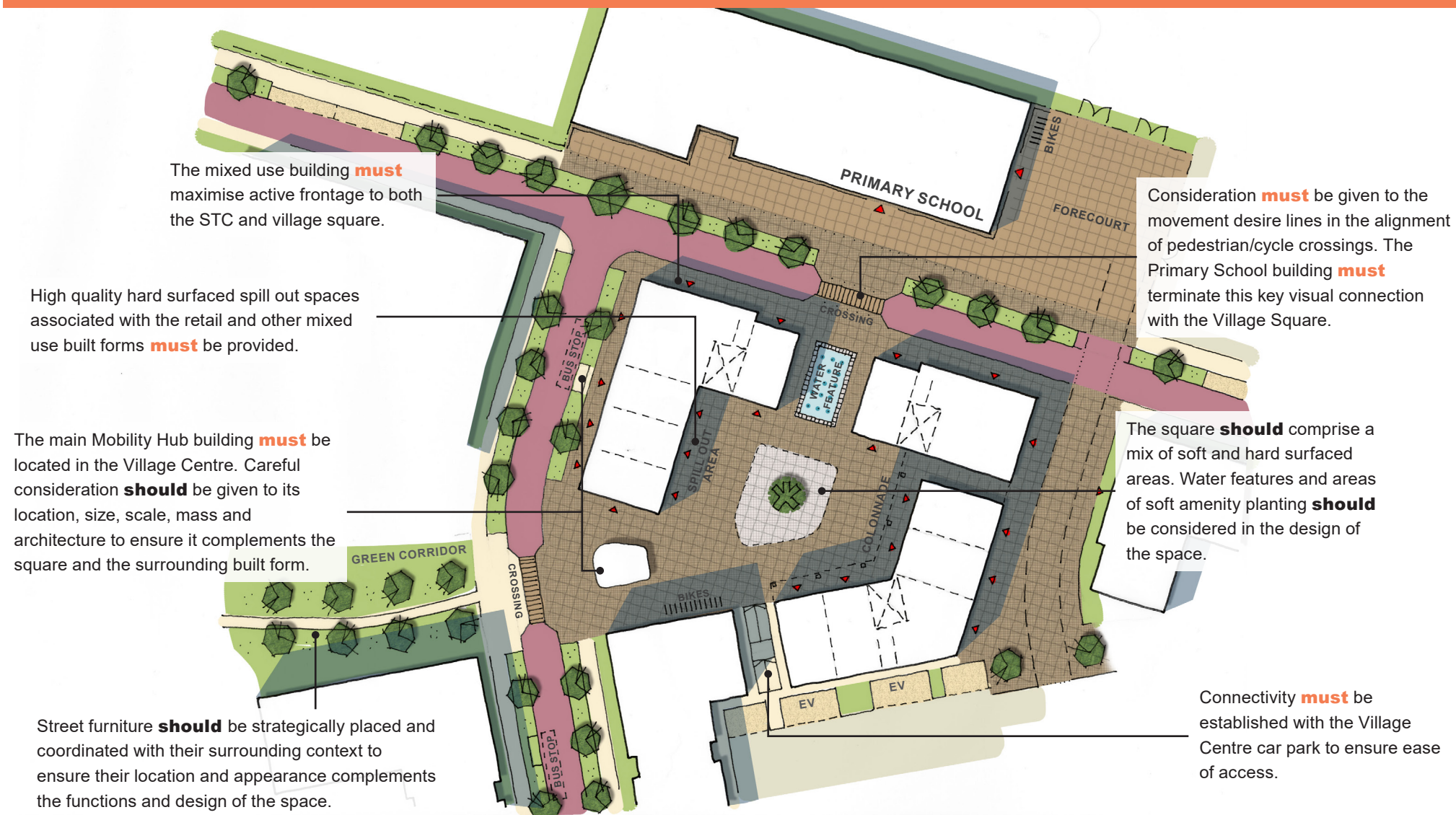
- Landmark Buildings
 - Marker Buildings
 - Pavilion Building (Sustainable Transport Hub)
 - Village Square
 - Indicative school frontage
 - Indicative primary mixed use frontage
 - Indicative frontage
 - School forecourt
 - Indicative Bus Stops location
 - Primary School (indicative entrances)
 - Key view along approach
 - Indicative parking court
 - STC Route
 - Cross-Parcel Permeability
 - Access Road
 - Restricted Primary School Access
 - Pedestrian connectivity
 - Shared Surface
 - East-West Green Link
 - Pedestrian/cycle priority crossing
-
- 1 Primary School
 - 2 Lime Avenue
 - 3 Primary Street
 - 4 STC



7. Non-Residential Built Form

7.3 Mixed Uses

Village Square Design Principles Plan (indicative illustration)



7. Non-Residential Built Form

7.3 Mixed Uses

Mixed Use Design Principles

Facade Design and Hierarchy

- Mixed-uses **must** be clearly articulated within the building as a whole. A degree of diversity **should** be included to differentiate between uses and create visual interest.
- The frontage **must** be sympathetic to the rest of the building in terms of scale, proportion and language.
- Main entrances **must** be clearly defined and long frontages **should** incorporate secondary entrances.
- Large areas of glazing to provide active frontage and adequate internal lighting levels is encouraged but **must** take account of internal arrangements and the need for privacy in some areas.
- Mixed-uses **must** be clearly articulated at the base of the building. Subtle projections, material changes or detailing can be used to distinguish the ground level from the upper floors. Materials used at the base **should** be high quality and durable.
- Balconies **should** be included in the facade design to articulate and provide active frontages to the upper floor levels.

Order

- The architectural language, scale and height of the frontage **must** be in proportion with the rest of the building and follow a vertical and horizontal order which relates to the wider building form.

Building Usage

- There **must** be active uses at the front of the building and clear views onto the street.
- Restaurants, cafes and pubs **must** include outdoor dining space/allow provision for activity to spill-out at ground level.
- Spill-out spaces **must** be managed and designed as part of the building facade.

Design and Detailing

- Signage **must** be clear, legible, and sensitively designed to support the wider character.
- Canopies or security shutters **must** be well integrated into the elevation design. Security shutters **should** be internal if required.

Flexibility

- Space for non-residential uses **should** be designed with sufficient adaptability to allow change over time, for example, easy future sub-division into smaller units.

Refer to Section 7.6 for guidance on Meanwhile Uses.



Clear signage and entrances designed as part of the elevation ensures user legibility



Consistent approach to shop fronts and signage

7. Non-Residential Built Form

7.3 Mixed Uses

Frontage Hierarchy

- Fenestration **must** be designed so that it provides clear views onto the street from inside, and the interior **should** be organised so that there are active uses at the front, particularly on the ground floor level. The scale and height of frontages **must** be well proportioned to allow for signage and display/active use.

Clear Entrances

- Main entrances **must** be located and clearly identified along the street through the use of elements such as framing, recesses and variation in material. Long frontages **should** incorporate entrances at regular/frequent intervals.

Clear Signage

- Signage **must** be attractive, well-proportioned and consistent in appearance.
- Hanging signs **must** be placed consistently above pavement level and at least 1m from the kerb to avoid potential damage.
- Signage for mixed-use buildings **should** be in a clearly defined zone between ground and first floors. The use of branded adhesive films and over-sized fascia signs **should** be avoided.
- Internally illuminated signage **should** be avoided.

Overspill Activity

- Every opportunity **must** be taken to create frontages that engage with the street and where threshold space is sufficiently wide, uses **should** be encouraged to spill out into the adjacent spaces.
- Spill out spaces **must** not obstruct the accessibility of the street.
- Clear markings on the ground **must** delineate the extents of the space to aid positioning of barriers, screens, bollards or signs.



Discrete and integrated signage



Refuse discretely incorporated into the building design

7. Non-Residential Built Form

7.4 Education

Village 1 will deliver a 3FE Primary School and up to an 8FE Secondary School. The size and specification of the schools are set out in the S106 Agreement. The schools form a core component of Village 1 and wider development in the Gilston Area. Along with the Village Centre, the schools will be a key focal point for the community, and their location and design are key to ensuring their prominence and connectivity within a network of walking, cycling and public transport routes. They will become one of the most visible and visited locations in Village 1, and their design **must** reflect this status accordingly.

The opportunity **must** be taken to create an appropriate local landmark, with an urban design and architectural expression of exemplar quality. The masterplan paves the way for a largely unconstrained design: through the bold yet sophisticated manipulation of form, scale, layout and materials, a design response of exceptional quality is anticipated.

Design proposals **must** clearly demonstrate how they have responded to the significance of the landmark in its context, and how it will create a setting for education and community life, acknowledging that education buildings will be delivered against a Department for Education Balanced Scorecard funding envelope and building specification.

Key Design Principles

Local Landmark

- The design of the school buildings **must** reflect their uniquely prominent location and role as a local landmark. The school building **must** positively address the STC by organising entrances and principal elevations such that they face them.
- The design of the Primary School **should** complement the neighbouring public realm and respond to the design language established by buildings fronting the civic space.
- The location of sports pitches and internal rooms **should** have regard to the interface with neighbouring residential properties, minimising potential noise impacts where possible.
- The built form of the schools **should** serve as the secure boundary, eliminating the need for the building to be set back behind a separate fence.

Access

- The schools **must** be easily accessible via a network of safe cycle/pedestrian routes and public transport in order to encourage sustainable and active travel.
- The main pedestrian and vehicular entrances to the schools **must** be located along the southern boundary.
- Floodlighting of the sports facilities for the secondary school **must** be limited to south of the Park Pale beyond the sensitive heritage zone. Refer to the Lighting Strategy in Section 5.13. Lighting proposals should also reference Sport England's guidance on artificial lighting for further information.

Parking

- Appropriate parking **must** be provided for teachers/staff and community users of school sports facilities, taking into account travel plan objectives for the site as a whole and wider HGGT aspirations.
- Disabled parking **must** be provided with bays located closest to the entrance of the school building.
- Parking areas **should** be carefully considered to minimise visual impact.
- Cycle and scooter parking **should** be sheltered, secure and easily accessible.
- Visitor cycle and scooter parking **should** be provided close to entrances.

Landscape

- Trees and hedgerows **must** be planted along sensitive boundary areas to reduce the visual impact of fences and create a more natural and seamless transition with Gilston Park and Lime Avenue.
- A landscaped forecourt **should** be provided in front of the main entrance to the schools.
- Soft landscape treatments within the school grounds **should** include more natural spaces, including outdoor classrooms, to enhance opportunities for learning and interacting with nature.
- Consideration **should** be given to using tree planting to assist with solar shading and potential overheating issues often faced in education buildings where large windows are desirable.
- Sensory planting areas **should** be included to support engagement and interaction.

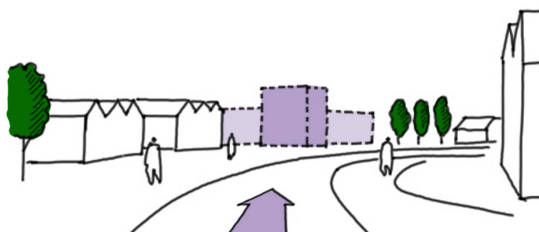
7. Non-Residential Built Form

7.4 Education

Built Form

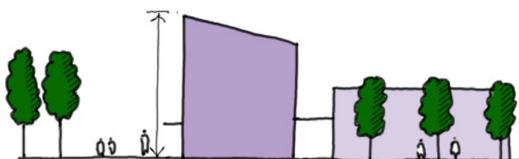
Local Landmark

- Building scale and primary elevations **must** be organised to positively address the public realm and long range-views towards the school.
- Opportunities for public art addressing the public realm **should** be considered.



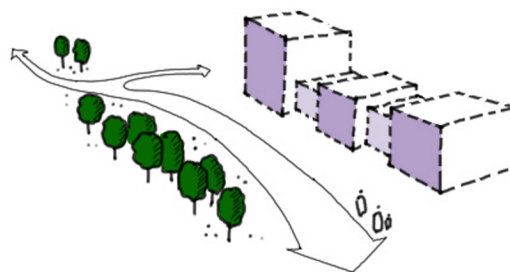
Height and Massing

- The massing and height of the school buildings **should** be concentrated in areas that will ensure its visibility is maximised when seen as part of long-range views along the STC.



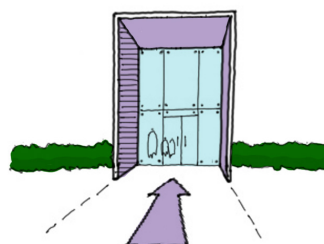
Roofscape and Articulation

- The roofscape and articulation of elevations of the school building **should** create rhythm and visual interest, breaking up the large building footprint. Large expanses of dull or monotonous elevations **must** be avoided.



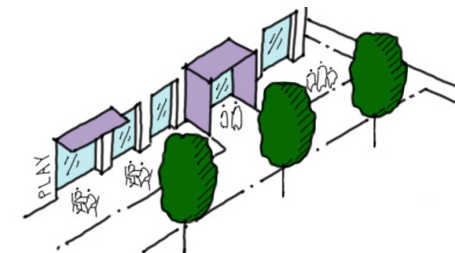
Celebrating Entrances

- The main entrance of the schools **should** be facing the STC and its facade **should** be architecturally prominent. The main entrance of the schools **must** be suitably expressed by 'celebrating' the focus for the design of the elevation.



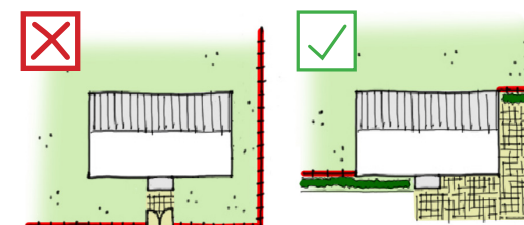
Frontages Addressing Public Realm

- Due consideration **must** be given to the fenestration of the schools in order to safeguard the close visibility of children from the public realm.
- Facades which front the public realm **should** maximise active frontages. This will provide natural surveillance and assist in creating animation along the street scene.

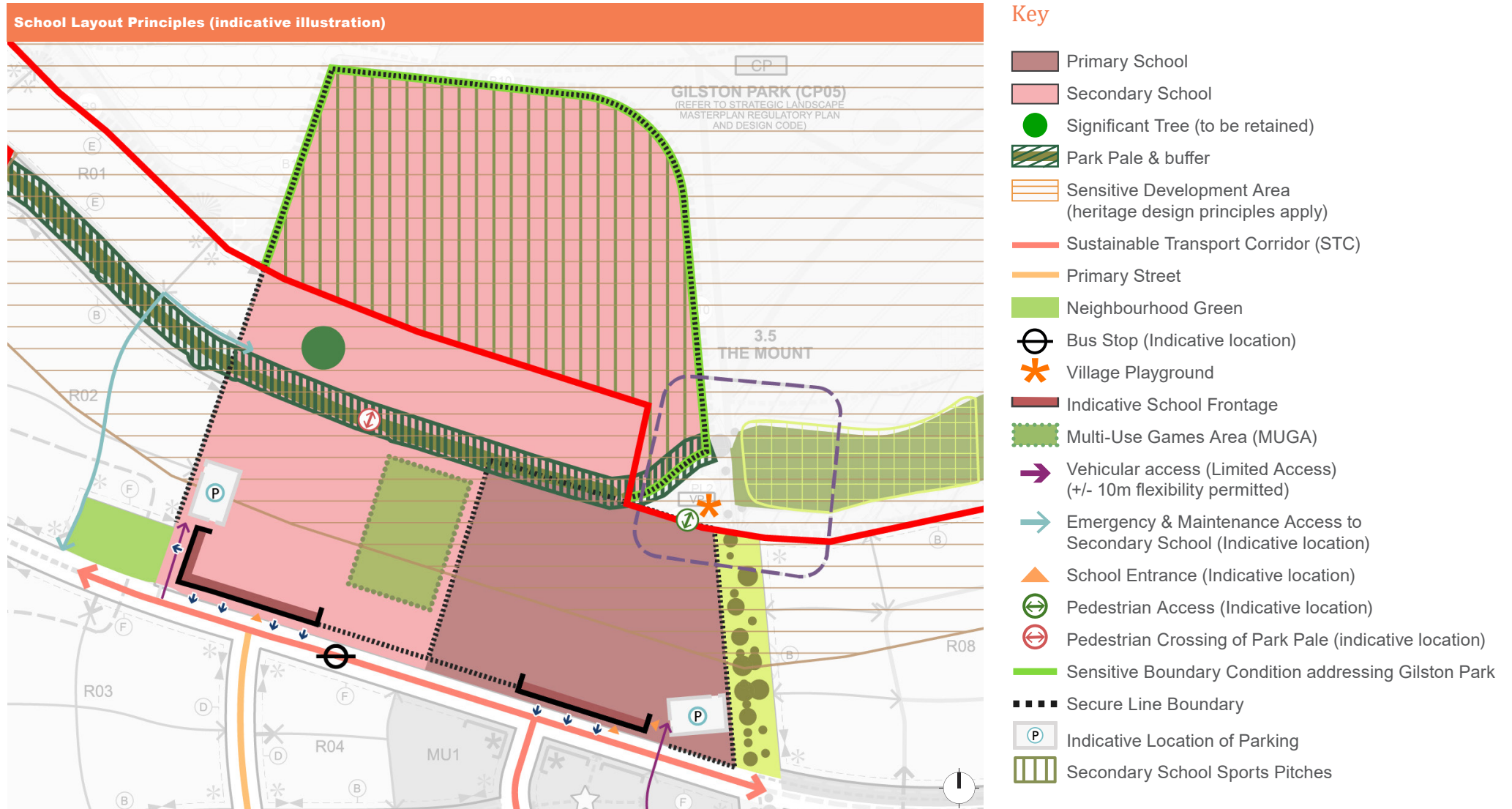


Boundary Treatments

- Robust, high quality landscaping **must** be provided as a means of softening extensive school boundaries.
- Suitable landscaping **must** be considered as a means of softening the boundary fence with planting on public side of fence.
- The school building **should** be integrated with the secure perimeter boundary to minimise the fence line used to separate the school grounds from the public realm.



7.4 Education



7. Non-Residential Built Form

7.4 Education

Safety and Security

- Child safety and security **must** be integral to the design of the school and its immediate surrounding environment, including streets and public spaces.
- The configuration of the school buildings and boundary treatment **should** create suitable and safe arrival areas for pupils and visitors.
- *Further references for safety and security include: School Output Specification: Generic Design Brief; Building Bulletin BB103: Area guidelines for mainstream schools; BB100 Design for fire safety in schools; Technical Annex 2G: Electrical services, communications, fire and security systems; and Secured by Design.*



Pease Pottage Primary School



Ermine Street Church Academy



Marleigh Primary School



Trumpington Park Primary School

7. Non-Residential Built Form

7.5 Retention of Existing Buildings

Introduction

A cluster of buildings are located along the southern boundary of Village 1, accessed from Eastwick Road. Eastwick Lodge, currently known as Forest Veterinary Centre, is a building with historic and architectural merit, and **should** be retained where viable, and carefully integrated into new development. An opportunity exists to develop the building for a number of uses including, business, dwellings, community uses and estate offices.

Appropriate changes or sensitive alterations can secure the continuing beneficial use of historic buildings, provided its original character and the surrounding setting are acknowledged.

The following principles are intended to ensure the design and configuration of the existing building makes a positive contribution to the street scene.

- New residential development adjacent to Eastwick Lodge **should** respect the setting of the building, with an appropriate set back distance retained.
- Landscape treatments **should** be carefully considered to ensure the setting of the building is suitably protected and retained.
- Consideration **should** be given to the architectural detailing and material palette of adjacent new development to ensure a complementary approach and street scene.
- Where converted for residential use, the building **should** positively front onto the open space to the east.
- Where converted for community use, careful consideration **should** be given to the location and relationship to public realm and parking, with suitable landscape treatments acting as a buffer to proposed dwellings.



Eastwick Lodge access from Eastwick Road



Eastwick Lodge - Forest Veterinary Centre

7. Non-Residential Built Form

7.6 Meanwhile Uses

Meanwhile Uses and Temporary Structures

The Village Centre will evolve over a number of years and meanwhile uses and temporary structures **should** be considered, to create a sense of place and serve the new community from day one. Meanwhile uses could include, temporary retail, pop-up services and tactical urbanism interventions. All meanwhile uses **should** be designed in line with the wider village through the application of similar materials palette, branding and colour scheme.

Temporary Landscape Treatments

Temporary landscape treatments **should** be used to minimise the impact of construction operations on recently developed residential parcels, and to improve the appearance of undeveloped land.

Proposals **must** be adequately designed to maintain a high-quality living environment, in keeping with wider green space design and strategies. Treatments could include, but **should not** be limited to:

1. Temporary play spaces where components could be relocated to future phases of a residential parcel, providing incidental or doorstep play.
2. Incorporating public art or information relating to local heritage assets such as Gilston Park into hoarding around construction sites, to improve its appearance.
3. Temporary tree planting in containers or in soft landscape to be relocated to future phases.
4. Grass-surfaced playing fields for ball games.
5. Swathes of meadow grassland.

The temporary treatments listed above **should** only be used where necessary to avoid the need to relocate and disassemble features. Disturbance of shrubs and trees **must** be avoided to limit loss due to transplant stock.



Temporary retail signage and planters helps enliven the public realm



Meanwhile uses in shipping containers



Temporary food store at Alconbury Weald



Meanwhile activation of open space adjacent to mixed uses

V1MP Design Code

8.0 Compliance Checklist

Compliance Checklist

RESERVED MATTERS APPLICATION

Applicable Design Code(s):

Parcel Reference:

Developer:

Architect:

Landscape Architect:

Highways Consultant:

Notes:

Wherever 'No' or 'Partial' is answered to any compliance question, an explanatory statement justifying non-compliance is required. Explanatory statements will be submitted in support of the completed Compliance Checklist.

The Design Code Compliance Checklist and any associated design justification should be provided as part of the Design and Access Statement (DAS) submitted with the Reserved Matters Application. Applicants should provide a statement at the beginning of the DAS explaining how they have complied with the Design Code's aspirations. Submitted proposals will only pass where "Yes" is achieved throughout or if acceptable justifications or alternative design rationales have been provided where "Partial/No" has been filled.

This V1MP Design Code Compliance Checklist will be completed and submitted with all Reserved Matters Planning Applications.

Colour boxes as appropriate in black:

Yes

Partial

No

N/A

INTRODUCTION		YES	PARTIAL	NO	N/A
	COMPLIANCE WITH CODE				
-	Has the Applicant understood this Design Code's role, status, hierarchy and structure?	☐	☐	☐	☐
-	Has the Applicant correctly applied the mandatory design principles outlined in this Design Code? If not, have they provided a detailed justification for any deviations?	☐	☐	☐	☐
-	Does the submitted material include a layout plan that is in accordance with the V1MP Regulatory Plan (i.e. has the proposal been overlaid on the V1MP Regulatory Plan)? If the proposal does not conform to the framework set by the V1MP Regulatory Plan have they provided a detailed justification for any deviations?	☐	☐	☐	☐
-	Has the Applicant provided a Statement of Compliance demonstrating how proposals accord with this Design Code?	☐	☐	☐	☐

8.0 Compliance Checklist

Compliance Checklist

BACKGROUND		YES	PARTIAL	NO	N/A
-	Has the Applicant familiarised themselves with the planning context and the approved plans and documents under the outline planning permission (including the Parameter Plans, Development Specification and Strategic Design Guide) and the SLMP Design Code and Regulatory Plan?	☐	☐	☐	☐
-	Which overlapping features of the SLMP and V1MP are applicable to this application? - o Green and Blue Infrastructure ☐ - o Movement Routes ☐ - o Noise, Utilities and Lighting Infrastructure ☐ - o Secondary School Playing Pitches ☐ - o None / Not Applicable ☐ - o Other (Please elaborate) ☐				
-	Has the Applicant familiarised themselves with the relevant features and constraints mapping?	☐	☐	☐	☐
-	Has the Applicant familiarised themselves with the Masterplan Vision and Illustrative Masterplan?	☐	☐	☐	☐

KEY GROUPINGS		YES	PARTIAL	NO	N/A
-	Does the proposal comply with the location of Key Groupings components and fixes of the V1MP Regulatory Plan?	☐	☐	☐	☐
-	Which Key Groupings are applicable to this application, and do they adhere to the specific design fixes & principles where relevant? - o 1. Eastern Arrival ☐ - o 2. All Modes Arrival ☐ - o 3. STC Arrival ☐ - o 4. The Mount ☐ - o 5. Western Arrival ☐				

8.0 Compliance Checklist

Compliance Checklist

GREEN & BLUE INFRASTRUCTURE		YES	PARTIAL	NO	N/A
-	Does the proposal comply with the location of Green Infrastructure components and fixes of the V1MP Regulatory Plan?	☐	☐	☐	☐
-	Which Green Infrastructure Components are applicable to this application and do they adhere to the specific design fixes & principles for each?				
	o Lime Avenue ☐	☐	☐	☐	☐
	o East-West Green Link (Eastern) ☐	☐	☐	☐	☐
	o East-West Green Link (Western) ☐	☐	☐	☐	☐
	o Eastern Neighbourhood Green ☐	☐	☐	☐	☐
	o Western Neighbourhood Green ☐	☐	☐	☐	☐
-	o North Western Neighbourhood Green ☐	☐	☐	☐	☐
-	Does the proposal comply with the location of Blue Infrastructure components and fixes of the V1MP Regulatory Plan?	☐	☐	☐	☐
-	Which Blue Infrastructure Components are applicable to this application and do they adhere to the specific design fixes & principles for each?				
	o Wet Basins ☐	☐	☐	☐	☐
	o Dry Basins ☐	☐	☐	☐	☐
	o Swales ☐	☐	☐	☐	☐
	o Rain Gardens ☐	☐	☐	☐	☐
-	Does the proposal accord with the On-parcel and On-Plot SuDs features design fixes & principles?	☐	☐	☐	☐
-	Does the proposal accord with the Play and Sports Provision design fixes & principles?	☐	☐	☐	☐

GREEN & BLUE INFRASTRUCTURE (CONT.)		YES	PARTIAL	NO	N/A
-	Does the proposal accord with the Community Orchards design fixes & principles?	☐	☐	☐	☐
-	Does the proposal accord with the Ecology and Biodiversity design fixes & principles?	☐	☐	☐	☐
-	Does the proposal accord with the Climate Change & Biosecurity Strategy design fixes & principles?	☐	☐	☐	☐
-	Does the proposal accord with the Wayfinding design fixes & principles?	☐	☐	☐	☐
-	Does the proposal accord with the Public Art design fixes & principles?	☐	☐	☐	☐
-	Does the proposal comply with the Soft Landscape Palette?	☐	☐	☐	☐
-	Does the proposal comply with the Hard Landscape Palette?	☐	☐	☐	☐
-	Does the proposal comply with the Street Furniture Palette?	☐	☐	☐	☐