Elmbridge

Design Code

Elmbridge
Borough Council

February 2024

Contents

1 Introduction

1.1 Purpose

1.1.1 The Elmbridge Design Code (EDC) has been produced to comply with the requirement in the National Planning Policy Framework (NPPF, 2021) for local planning authorities to produce design codes or guides for their area. It sets out a clear design vision and expectations for development, so that applicants have as much certainty as possible about what is likely to be acceptable (as paragraph 127). It is consistent with the principles set out in the National Design Guide (NDG) and National Model Design Code (NMDC) (as paragraph 128).

1.1.2 The Design Code will be a Supplementary Planning Document (SPD) that supports the implementation of the Local Plan policies and sets out clear expectations for design quality and sustainability across the borough. It is a set of illustrated design requirements that provide specific, detailed parameters and guidance for the physical development within the area. The visual and written components of the code are informed by and follow the principles of the 10 characteristics of well-designed places set out in the NDG and the NMDC.

1.1.3 The purpose of the Code is to help the local planning authority and its communities decide the characteristics of good quality design based on the local aspirations for how their places will be developed. At the same time, developers will gain more certainty by reducing their risk of rejection of their proposal on design grounds. This could also speed up the overall planning application process. For the purposes of the Elmbridge Design Code, it covers the built environment within the borough and excludes its defined areas of Green Belt.

1.1.4 Planning applications for development are expected to comply and demonstrate compliance with its requirements and where there is a deviation through exception, a robust justification will need to be made. The code is a material consideration in assessing planning applications.

1.1.5 Definition of a Design Code: “a design code is a set of illustrated requirements that provide specific detailed design

Fig 1.1 Ten characteristics of well-designed places from the National Model Design Guide

1.2 Objectives

1.2.1 At the heart of the council's approach to achieving high quality and well-designed places is the need for proposals to be informed by and respond positively to the local context and to the views of local communities. This will result in a development that is pleasant to live and work in.

1.2.2 The goal is to ensure that new development enhances the local character across the borough, creates a 'sense of place' which is memorable for its architecture and townscape, provides high quality public realm and is well connected to its immediate and wider setting.

1.2.3 Design solutions for any new development need to be informed by a sound process for a thorough appreciation and analysis of the context. This will require a structured approach, comprising an analysis of the constraints and opportunities of the site and how its surroundings have been used to help inform and influence the principles of the proposed design.

1.2.4 The aim is to ensure that the approach is a creative process, orientated and tailored to the context as opposed to being a standard solution imposed regardless of context or a pastiche replication of existing buildings.

1.3 Use of the Design Code

1.3.1 Elmbridge Design Code will be used by different audiences, and each will have a different pathway through it.

1.3.2 If you are a resident, you can use the Code to understand the relevant requirements and what they mean for future development in your local area. You would start in Section 1 to understand the context for your settlement area and identify the Area Type which covers your street and surrounding area.

1.3.3 If you are an applicant, you should first read Section 1 to understand the local context for the area you are interested in, and consult the section of Design Process which details how a site should be approached and what is expected of you through the application process.

1.3.4 If you are a planning officer, you would likely first identify the Area Type the site you are looking lies within and then refer to specific design codes and guidance under the 10 themes relating to that Area Type.

1.3.5 The Code is structured by the 10 characteristics of well-designed places established in the National Design Guide, and colour-coded accordingly. Depending on the current planning policy and legislation, some design requirements are mandatory (codes) and some optional (guidance) - please see section 1.3.6 for further information. Index of design codes follows in section 1.4 and the Index of design guidance in section 1.4.1.

1.3.6 How the design matters are structured in this Design Code

Design issue

Paragraph describing a) the design issue, b) the objective of providing rules/guidance for this design issue and c) the benefit of adopting the rules/guidance.

Lettered items denote a **mandatory rule** for how to positively influence the above design issue.

Bullet points denote **advisory guidance** for how to positively influence the above design issue.

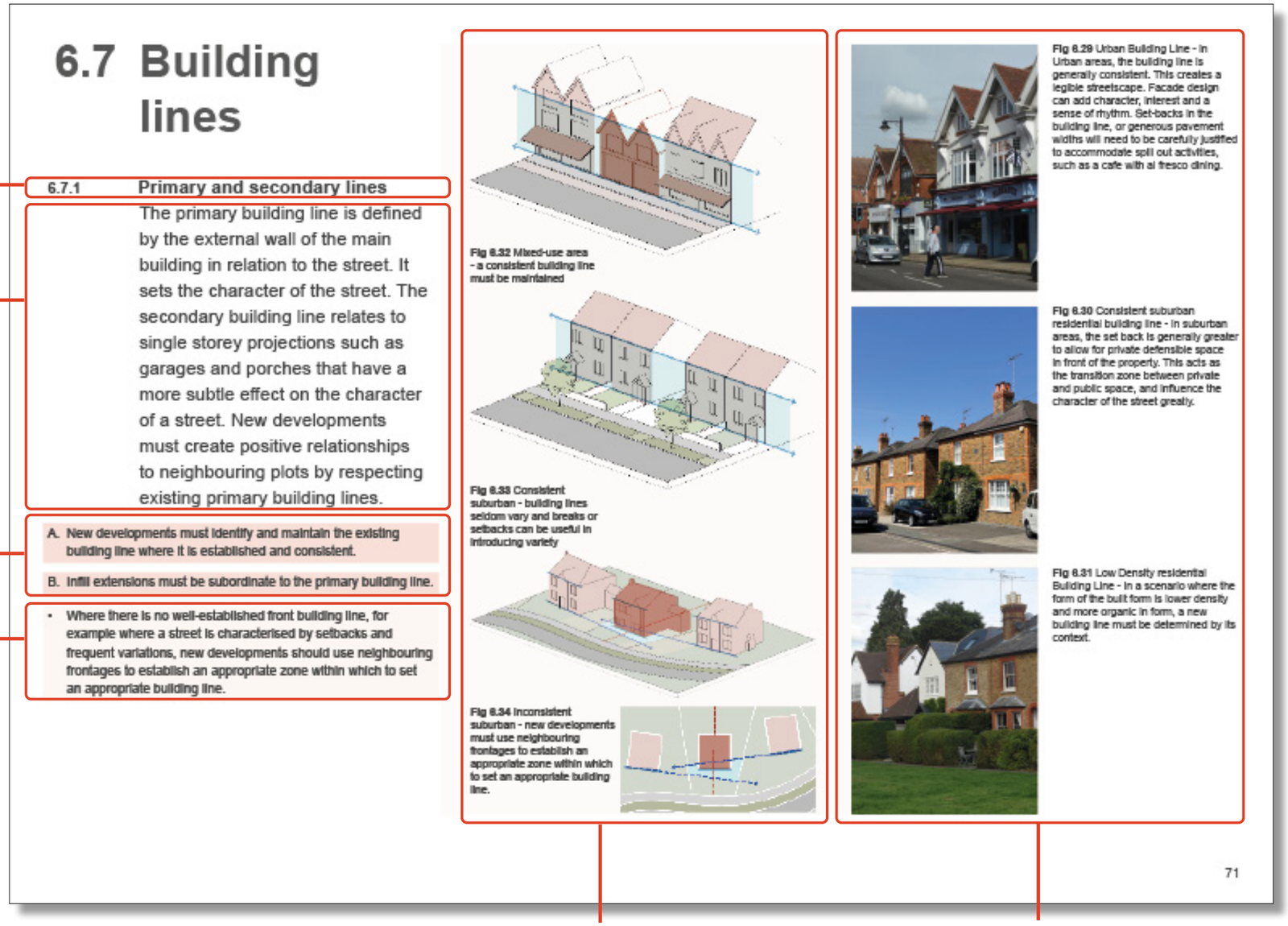


Fig 1.2 A diagram demonstrating how a typical page in this document is structured

Diagrams: Illustrating how the mandatory rules and advisory guidance can be implemented in two and three dimensions using a typical example.

Precedent images: Photographs may be used to demonstrate positive, built examples of how a design issue has been addressed.

1.4 Design code index

Fig 1.3 This index identifies the design issues addressed by design codes within each topic. It also indicates (with a 'Y') the relevance of each design code to different scales / types of development as well as Elmbridge's area types (See 2.2 Area types for further information)

Document navigation					Scale / Type of development			Relevant area type		
Chapter	Section	Topic	Sub-section	Design issues addressed by design codes	Householder[1]	Residential[2]	Commercial, Mixed and Change of Use[3]	All residential area types	Mixed use	Light industrial, Retail park, Business & Campus
Movement	4.3	Site access	4.3.1	A. Permeability of hardstanding	Y	Y	Y	Y	Y	Y
	4.4	Cycle parking	4.4.1	A. Cycling parking requirements	Y (where proposal relates to parking or garaging)	Y	Y	Y	Y	Y
				B. Dedicated cycle storage		Y	Y	Y	Y	Y
				C. Secure cycle parking	-	Y	Y	Y	Y	Y
	4.5	New residential car parking	4.5.1	A. Surface parking and landscaping	-	Y	Y	Y	Y	Y
Nature	5.1	Urban greening	5.1	A. Biodiversity net gain	-	Y	Y	Y	Y	Y
	5.2	Trees and street greening	5.2.1	A. Street trees	-	Y	Y	Y	Y	Y
	5.3	Flood risk and Sustainable Drainage Systems	5.3.1	A. Flood risk management	Y	Y	Y	Y	Y	Y
				B. Provision of SuDS	-	Y	Y	Y	Y	Y
				C. Surface water runoff control	Y	Y	Y	Y	Y	Y
	5.4	Enhancing the riverside	5.4.2	A. Soft landscaping and tree planting	-	Y	Y	Y	Y	Y
				B. Waterside character	-	Y	Y	Y	Y	Y
Built Form	6.1	Plot Coverage	6.1.1	A. Plot Ratio	Y	Y	Y	Y	Y	-
	6.2	Density	6.2.1	A. Floor Area Ratio	-	Y	Y	Y	Y	-
	6.3	Building heights	6.3.1	A. Assessing existing building heights	Y (only where the roof extension is higher than existing roof of the main house)	Y	Y	Y	Y	Y
				B. Area of consistent building height		Y	Y	Y	Y	Y
				C. Area with height variations		Y	Y	Y	Y	Y
			6.3.2 Only where taller buildings are proposed	A. Design quality	-	Y	Y	Y	Y	Y
				B. Public benefits	-	Y	Y	Y	Y	Y
				C. Exceptional sustainability benefits	-	Y	Y	Y	Y	Y
				D. Justification for taller building(s)	-	Y	Y	Y	Y	Y
				E. High quality amenities	-	Y	Y	Y	Y	Y
				F. Contribution to public realm	-	Y	Y	Y	Y	Y
				G. Parking design	-	Y	Y	Y	Y	Y
	6.4	Townscape legibility	6.4.1	A. Avoiding blank frontages	Y	Y	Y	Y	Y	Y
	6.5	Roofscape	6.5.1	A. Consistency of roofscape	Y	Y	Y	Y	Y	Y
				B. New dormers	Y	Y	Y	Y	Y	-
	6.6	Building lines	6.7.1	A. Building lines	Y	Y	Y	Y	Y	Y
				B. Infill extensions	Y	Y	Y	Y	Y	Y
	6.8	Street rhythm	6.8.2	A. Assessing existing urban grain	-	Y	Y	Y	Y	-
				B. Following identified urban grain	-	Y	Y	Y	Y	-

1. Householder applications include alterations to existing homes. Examples are single and two-storey extensions, loft conversions, conservatories, raised patios, fences, outbuildings, porches and similar.
2. Where development includes proposals for one or more new dwellings.
3. Commercial development is concerned with provision of uses other than residential. Mixed developments include both commercial and residential uses. Change of Use include proposals for change from one Use Class to another.

Document navigation					Scale / Type of development			Relevant area type		
Chapter	Section	Topic	Sub-section	Design issues addressed by design codes	Householder[1]	Residential[2]	Commercial, Mixed and Change of Use[3]	All residential area types	Mixed use	Light industrial, Retail park, Business & Campus
Identity	7.1	Local vernacular	7.1.1	A. Local character, materials and construction details	Y	Y	Y	Y	Y	Y
Public Spaces	8.1	Enhancing the public realm	8.1.1	A. Planting along streets & in front gardens	Y	Y	Y	Y	Y	Y
	8.2	New open spaces	8.2.1	A. Outdoor play areas	-	Y	Y	Y	Y	-
			8.2.3	A. Street furniture	-	-	Y	Y	Y	Y
Uses	9.1	Animating streets	9.1.1	A. Active frontages	-	-	Y	Y	Y	Y
Homes & Buildings	10.2	Private amenity	10.2.4	A. All bin store areas	Y	Y	Y	Y	Y	Y
				B. Accessibility of refuse storage areas	-	Y	Y	Y	Y	Y
				C. Refuse storage and collection	Y	Y	Y	Y	Y	Y
				D. Capacity of domestic refuse storage	Y	Y	Y	Y	Y	-
				E. Capacity of communal refuse storage	-	Y	Y	Y	Y	-
				F. Location of non-residential refuse storage	-	-	Y	-	Y	-
Lifespan	12.2	Long-term management	12.2.1	A. Frequent management regime	-	Y	Y	Y	Y	Y

1. Householder applications include alterations to existing homes. Examples are single and two-storey extensions, loft conversions, conservatories, raised patios, fences, outbuildings, porches and similar.
2. Where development includes proposals for one or more new dwellings.
3. Commercial development is concerned with provision of uses other than residential. Mixed developments include both commercial and residential uses. Change of Use include proposals for change from one Use Class to another.

1.4.1 Design guidance index

Fig 1.4 This index identifies the design issues addressed by design guidance within each topic.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Movement	**4.1.1**	**Strong and active links**	Active Travel Links should be continuous and use consistent surface treatments.
			Links should provide cycling infrastructure including cycle storage that should be incorporated into the security plans near the station footprint.
			Links should have a continuous footway with at least 2m of unobstructed width.
			Minor roads and vehicle crossovers should be designed with a raised table and continuous footway.
			Links should be clearly signposted and make use of wayfinding with convenient formal crossing opportunities.
			Destinations at either end should offer facilities to encourage active travel interchange with public transport such as cycle parking and hire schemes.
			Soft landscaping on and adjacent to the active links should be subject to maintenance plans to be agreed prior to their implementation.
			Active travel routes should be designed and laid out in a way that promotes safety and security for users, e.g. through the use of lighting. Please refer to Active Design guidance published by Sport England.
			When introducing cycle lanes, space should be carefully balanced to ensure vehicular traffic can still run smoothly.
	4.2.1	**Off-road routes**	Off-road route design should be according to LTN 1/20 (paragraphs 8.5.5, 13.7.1, 13.10.1, 15.2.20, 15.4.2, 15.6.1 (table)).
			Off-road routes should link public and private streets to improve active travel permeability where streets are not connected.
			Off-road links can be shared paths or have lanes separated by function.
			Off-road routes designed as shared paths should be a minimum 3.0m wide.
			Off-road routes for schools, commuting and other community use should be lit.
			New cycling infrastructure should be designed in line with Healthy Streets for Surrey Design Code.
	4.3.1	**On-plot access roads**	Wherever possible, access roads should serve more than one property rather than running the full depth of the plot or duplicating parallel access roads on neighbouring plots.
			Communal parking could reduce the need for access roads and increase the flexibility of plot layouts. To reduce security issues, communal and public parking areas should aim to achieve Park Mark Award.
			Access and servicing areas for non-residential developments with operational need for deliveries, maintenance and loading should be designed to: • maximise the efficient delivery of goods, • accommodate the largest vehicle anticipated, • provide sufficient bays required for deliveries to all business units, • provide storage and welfare facilities for staff, • provide for refuse collection; and • provide collect-by car spaces in retail developments where relevant.
			Pedestrian and pavement design should follow codes and guidance in section 6 of the Healthy Streets for Surrey Design Code.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Movement	**4.4.1**	**Cycle parking for all situations**	All new developments should consider the provision of short-stay visitor cycle parking.
			Cycle Parking should be designed according to LTN 1/20 (Chapter 11) and HSfS Chapter 11.8. Applicants are encouraged to achieve Secured By Design Award.
			A 10% allowance to the cycle parking quantum might be made for non-standard bicycles (e.g. cargo bikes, adapted bicycles).
			In the public realm cycle parking should be situated in convenient and secure locations.
			Cycle parking in residential developments should be accessible without the need to move a car.
			Applicants should clearly demonstrate where and how cycle parking will be provided in all new development.
			Where vertical cycle parking design is considered, this should be only in addition to other types of cycle parking designs, as vertical cycle parking might not be suitable for heavier electric cycles or bicycles with mudguards.
			Where possible, all cycle parking should offer a real advantage over the nearest parking space; be located away from bin stores and smoking shelter (or other features that may deter use); and when located on the footway, stands should include a tapping rail to warn the visually impaired, and visibility bollards.
			Where communal cycle storage is proposed, this should only be for a small grouping to encourage a sense of security.
			New staff cycle parking could be supported by the provision of showers, storage and changing facilities within the development to encourage the use of cycles as a means of transport.
			A mix of short and long stay cycle parking should be provided in new commercial or mixed-use developments.
			Standard solutions to long and short stay cycle parking such as Sheffield stands should be used as they provide more stability and security.
			Where there is limited space on site, other solutions such as sympathetically designed cycle lockers, might be acceptable.
			Proposals should demonstrate how cycle parking facilities cater for larger cycles, including adapted cycles for disabled people and electric cycles.
	4.5.1	**Implementing parking guidance**	Where allocated parking is provided, this should be close to the front door of residential properties.
			Parking typologies should aim to reduce surface parking provision, e.g. by being underground or in a garage.
			Alternatives to undercroft parking, that create inactive street frontages, should be sought.
			Car club parking bays should be made available in all major developments. These should be clearly identified and should include electric vehicle charging points.
	4.6.2	**Car parking dimensions, design and layouts**	The minimum dimension of a car parking space should be not less than 2.5m x 5.0m.
			Disabled parking space should measure 3.6m x 5.0m and should be located no further than 50m from an accessible entrance, be clearly signed and under cover if possible.
			For parallel parking bays the dimensions should be increased to 6.0m in length and these should be designed so that bays cannot be used for echelon parking.
			The minimum distance expected between the end of a car and a solid object should be an additional 0.5m.
			For echelon parking bays the minimum acceptable length should be 4.2m. The width of the bay and the angle of approach vary depending on the design. For a 2.5m wide bay the aisle widths are typically 6.0m at 90 degrees, 4.2m at 60 degrees, and 3.6m at 45 degrees. These width requirements can be reduced if the spaces are made wider.
	4.6.3	**Garages / car ports / car barns**	The minimum internal dimensions of a garage should be 6m x 3m.
			Where cycle storage is expected, larger garages with dimensions of 3m x 7m, or 4m x 7m might be appropriate.
			For car ports/ car barns the recommended minimum dimensions are 2.9m x 5.5m.
			Where a garage and driveway are directly adjacent to the highway, they should be set back a minimum distance of 5.5m behind the highway boundary, to avoid causing an obstruction of the footway by parked cars.
	4.6.4	**Additional requirements for non-residential development**	Parking provision for non-residential development needs to include spaces for staff, visitors and customers, as well as operational and servicing needs.
			Facilities should be convenient, user friendly and well lit, designed to limit the opportunity for crime and to promote natural surveillance, be managed and maintained, and allow for safe access and movement.
			Parking facilities in non-residential/mixed development should aim to achieve the Secured By Design Award.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Movement	**4.6.5**	**Parking for motorbikes**	Motorbike parking should be clearly signed and marked, indicating that it is reserved for powered two wheelers only.
			Sites should have dropped kerb access, anchor points, and solid surfacing that does not become soft in hot weather, and offer natural surveillance.
			Sites should be lit and ideally located away from drain gratings, manhole covers, studs, cats' eyes, cobbles and gravel.
			Provision in which to secure motorbikes with anchor points or horizontal bars should be made.
	4.6.6	**Electric Vehicles (EV)**	Prospective developments should be designed to incorporate sufficient car parking for EV and other ultra-low emission vehicles.
			New developments should provide EV charging points using the most up to date technology and applications should provide details of the type and location of these facilities.
			EV charging points should be conveniently sited where the residents are able to benefit from a "pay as you go" charging system. Detailed guidance on appropriate location of EV charging facilities is set out in Healthy Streets for Surrey Design Code.
Nature	**5.1**	**Urban greening**	Applicants should maximise opportunities to incorporate green infrastructure and soft landscaping in their designs.
			All major schemes should meet or exceed an Urban Greening Factor (UGF) of 0.4 for predominantly residential schemes and 0.3 for predominantly commercial developments (see Appendix B for further information about UGF).
			Minor (1-9 new dwellings) and householder development should aim to apply the principles of the UGF and aim to achieve a betterment.
			Applicants should ensure their proposals for green infrastructure and soft landscaping follow the Building with Nature standards and Natural England's Green Infrastructure Framework.
			Urban greening proposals should also be accompanied by appropriate management and maintenance plans.
			Green infrastructure, soft landscaping and planting schemes should be climate resilient and help to mitigate the impacts of climate change; promote diversity, utilising a variety of species to maximise biodiversity and encourage wildlife; and help to mitigate and alleviate flood risk.
			Proposals for new green space should ensure these are multi-functional to provide opportunities for people to be active.
			Natural boundary treatments such as native evergreen hedges should be prioritised over brick or metal railings. Native plants should be used in soft landscaped boundary treatments. Best native hedges include beech, blackthorn, box, dogwood, hawthorn, holly, hornbeam, wayfaring tree or yew.
			Boundary designs should create and/or connect to green and wildlife corridors where feasible.
			Where sites are close to existing green spaces, routes or waterways, the landscape design should respond positively to these by, for example, providing landscape corridors, maintaining continuity of routes or providing direct access to landscape assets.
			Naturally planted areas in front, rear and communal gardens should be maximised. Larger areas might benefit from rewilding.
	5.2.1	**Suitable planting in public spaces and streets**	Existing trees should be retained as a priority, and new trees planted to provide urban greening.
			The choice of planting should consider their climate change resilience, for example drought or extreme temperatures.
			The functionality and soil type should inform which tree species are chosen.
			Proposals for new streets should follow all urban greening code and guidance set out in section 5.1.
	5.3.1	**Flood risk and Sustainable Drainage Systems**	SuDS proposals should follow guidance in Surrey County Council's Sustainable Drainage System Design Guidance.
			Development proposals need to demonstrate that SuDS will adequately manage land drainage and will not result in an increase in surface water run-off.
			The design and implementation of SuDS should take account of a site's constraints, including sub-surface infrastructure, space, building layout, orientation, land uptake and soil condition – such as land contamination.
			SuDS should be designed to be multi-functional and incorporate sustainable drainage into landscaping and public realm, including maximising opportunities to establish surface water ponding areas, urban watercourse buffer areas and multi-use flood storage areas in locations of high surface water flood risk and critical drainage areas to improve flood resilience, amenity and biodiversity. Such design could include built-in rainwater harvesting to supply planted areas in public spaces.
			SuDS design should consider and address the future maintenance requirements and impacts of climate change.
	5.4.1	**Riverside environments**	New development should take account of the important landscape framework defined by the Thames, which supports leisure activities including walking, cycling, boating and fishing.
			Proposals should enhance the natural setting and encourage biodiversity. An ecological appraisal should be undertaken by a suitably qualified consultant. Green and brown roofs, rain gardens and wet meadows should be considered.
			New developments are encouraged to adopt the recommendations of the Thames Landscape Strategy that covers part of Elmbridge (the areas along the river between Weybridge and Hampton Court Palace).

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Nature	**5.4.2**	**Riverside development**	Planting schemes in a river setting should take account of whether the river is a Site of Nature Conservation Importance (SNCI) and ensure that any new planting does not have an adverse impact on the nature conservation importance of the river.
			New developments should enhance the natural setting of Elmbridge's waterways.
			New developments should address the river by providing active frontages.
			Avoid negative impact of development on riverside ecosystems for example by using low level lighting.
			Pedestrian and cycle connections to the riverside should be made as part of new developments to maximise the enjoyment of these amenities.
Built Form	**6.1.1**	**Well-proportioned layouts**	Prospective developments including householder extensions should conform to the range of Plot Ratios set out in Fig 6.1, where possible.
	6.2.1	**Floor area ratio (FAR)**	Proposed developments should optimise the proportion of new floorspace in relation to the site area (FAR), taking into account relevant factors such as plot layout, building types, greening, amenity and parking.
	6.3.1	**Building heights - relating to existing heights**	The minimum floor to ceiling height should be 2.5m for residential and 3m for non-residential buildings.
	6.3.2	**Taller buildings**	For larger developments of 50 homes and more, height variation using a gradient across the site might be considered appropriate.
	6.5.1	**Variation in roofscapes**	The style and materials of proposed roofs should reflect or respond positively to that of surrounding buildings.
			Roof extensions and dormers should help maintain the style and appearance of the existing building and should avoid dominating the roofscape from a wider view.
			The fenestration details (windows/doors) should be in vertical and horizontal rhythm, except where there is a significant change in levels across a site.
			The materials used in any exterior work should be of a similar appearance to those used in the construction of the exterior of the existing building.
			New roof extensions including dormers should reflect and respond positively to proportions and positions of existing facade and its openings.
			Hipped roof or gable ended dormers are often preferable to those with flat roofs. Their sides should be covered in materials which match or complement the main roof. In some cases, a roof light may form a more suitable alternative to a dormer.
	6.6.1	**Single or two-storey side extensions**	Single or two-storey side extensions should either be fully integrated with the house or clearly be shown to be extensions. • The fully integrated extension is usually only successful where it does not affect symmetry. This is possible on a detached or occasionally on the end of a terrace property. • On a symmetrical property or a semi-detached house, an extension which is subordinate to the existing building is advisable. In such cases it is preferable to set it back from the front wall of the house, which helps to reflect the secondary role of the extension and can also stop any awkward bonding of brickwork appearing on the front elevation.
	6.6.2	**Side extensions**	A minimum of 1 metre should be maintained between any extension above ground floor level and the boundary. Where space allows and to accord with the rhythm of the streetscape, more than 1 metre should be left at the boundary.
			Single storey extensions can result in problems caused by the encroachment of foundations or guttering if the extension is too close to the boundary. A minimum of 300 mm between the side wall of a single storey extension and the property boundary should therefore be aimed for wherever possible.
	6.6.3	**Roof design**	The roof of an extension should be similar to that of the existing house, in scale, design and the angle of the pitch. In particular, properties with a pitched roof should not have flat roofed extensions. This may not apply to single storey rear additions to a two or more storey dwelling.
			The eaves level of a two-storey extension should line through from the host building and should not be higher than on the existing property.
	6.6.5	**Daylight and sunlight (residential extensions)**	Materials and detailing of the extension should match those of the existing building in design, colour and texture.
			For a single storey extension that does not project more than 3 metres, the effect on natural light is considered to be minimal. Beyond that distance the extension should be less than an angle of 45° from the edge of the nearest adjoining neighbour's habitable room window (Fig 6.29).
			Similarly, if up to 3 metres deep first floor front/rear extension is proposed and the neighbouring dwelling has a single storey corresponding front/rear extension, the line of 45° is not applied.
			The '45° angle' test (Fig 6.29) applies to two storey extensions which are closer than 15 metres measured along that sight line from the neighbour's window, or 8 metres in the case of single storey extensions unless the latter do not project more than 3 metres. The loss of light to an adjoining dwelling can be more noticeable where an extension is to be directly to the south, warranting sensitivity in siting and design. Two storey rear extensions must be very carefully sited and designed. Their acceptability will depend on the specific characteristics of the site and their relationship to adjoining houses. The test should also apply to side facing windows of adjacent houses which serve habitable rooms, particularly if these windows are the only natural light source to the room.
			BRE '25 degree' rule of thumb (Fig 6.28) can be used to assess impact of proposal on daylight and sunlight received by neighbouring habitable room windows that face the new development/extension. This should be taken from the centre of the lowest window. If there is a breach, a daylight and sunlight assessment might be required to demonstrate adequate light is reaching this habitable room.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Built Form	**6.6.6**	**Privacy (residential properties)**	An extension should not result in any significant loss of privacy to adjoining houses and gardens. To prevent overlooking, windows should either be high level, obscurely glazed or omitted from any wall directly facing a neighbouring house or garden, particularly in that part that is close to the neighbouring house and having the most activity, for example patios.
			The use of a flat roof of an extension as a balcony or the creation of any other raised terrace will not usually be acceptable unless well screened or within substantial plots where overlooking would not occur.
	6.7.1	**Primary and secondary (building) lines**	Where there is no well-established front building line, for example where a street is characterised by setbacks and frequent variations, new developments should use neighbouring frontages to establish an appropriate zone within which to set an appropriate building line (Fig 6.32).
	6.8.1	**(Street) Rhythm**	Where voids are consistent in width, these should be continued.
			Where a garage, fence or shed is present within voids on neighbouring properties, the infill development can mirror this arrangement in order to continue this secondary rhythm along the street.
			Where voids are irregular, the separation distances of the infill development should reflect the proportions of the adjacent dwellings.
			New developments should follow the vertical and horizontal rhythm established by the existing and distinctive elements on a street.
	6.9.1	**New developments on the edge of settlements**	Proposals should enhance the natural setting and encourage biodiversity.
			New developments in residential areas should not disrupt the prevailing scale of the edge of settlement character.
			New developments should preserve or enhance the natural setting of Elmbridge's semi-rural edges and open spaces.
			Preserve ecosystems on edge of settlements for example by using low level lighting.
			Pedestrian and cycle connections to open green space should be made to maximise the enjoyment of these amenities while better connecting these spaces.
Identity	**7.1.1**	**Materials and construction**	In sensitive historic settings such as Conservation Areas, the use of traditional materials and detailing is advised. In areas that are less constrained by heritage, modern materials and methods of construction might be acceptable.
			The detailing and facing materials of any extension should take account of those on the existing property.
	7.2.1	**Traditional shopfronts**	Shopfronts should respect the bays of the host building with fascia correlating to the natural rhythm.
			Shopfront fascia should not dominate building's façades. In historically sensitive locations signage should respect fascia lines and not disrupt the existing character.
			Original, historic features should be retained or restored where possible.
			Elements such as doors, fascia, windows and lighting should be in proportion with both the building itself (including the character of upper floors, scale, proportion, and materials) and the general street scene.
			Shopfront security grille shutters should be implemented internally, be permeable and should reflect the predominant colour scheme of the wider design.
	7.2.2	**Contemporary shopfronts**	Applicants should understand and respond to the proportion of the surrounding buildings and the shop's parent building.
			Cornice should define the top of the shopfront above the fascia with a good relationship to the first floor of the facade.
			The design of the facade should be regular and graphically coherent with the parade.
			Shopfront security grille shutters should be implemented internally, be permeable and should reflect the predominant colour scheme of the wider design.
	7.3	**Illuminated adverts**	Recommendations for the acceptable luminance levels of adverts are set out by the Institute of Lightning Professionals in Tables 3 and 4 of the Professional Lighting Guide 05 The Brightness of Illuminated Advertisements.
			The maximum value of luminance anywhere on the surface of an advertisement at any time during the night applicable in Elmbridge Borough should not exceed maximum luminance set out in Figure 7.8.
			Where the location of advert falls within more than one category in Figure 7.8 (in the 'where applicable' column), the lowest maximum luminance should be applied.
			During the daytime sign luminance should never exceed 5,000cd per square metre.
			Adverts in Conservation Areas should be externally illuminated only.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Public Spaces	**8.1.1**	**New streets within developments**	Tall fencing to the front of properties using man-made materials should be avoided.
			Streets should be designed to constrain vehicle speeds and establish narrow and varied alignments. The key element of the street design – roadway alignment, parking, footways, planting, signage, furniture and lighting should all be used to help reduce traffic speeds to safe residential levels and reinforce the street character.
			Streetscape design should be used to frame views and vistas to prominent buildings and destinations, defining spaces and places, to provide legibility and a sense of identity.
			New development creating new or improving existing public realm should consider crime prevention and the fear of crime as set out in the Secured By Design guidance. The prevention measures could include provision of lighting columns as opposed to bollard lighting that should only be used for wayfaring purposes.
			Public art should be used to help provide local places with an identity, interpret the history of the area or celebrate the local community.
			Where feasible public art should be collaborative and form part of wider initiatives in the Borough.
	8.1.3	**Public area and wayfinding**	Public art should be deployed sparingly and effectively, to establish focal points, way-markers or mark entrances or features.
			Signage should be integrated into the public realm both as a tool for wayfinding but also as an expression of local heritage, community and culture.
			Educational signage is encouraged, particularly along walking trails.
	8.1.4	**Street furniture**	Cycle stands should be located on cycle desire lines in well over-looked places.
			Street furniture should respond positively to the local, natural and historic character of the area, with consideration to the scale, height, materials, detailing, mass, built and articulation of the street furniture.
			Formal and informal seating should be provided in areas protected from unpleasant elements such as wind, rain and vehicular traffic.
			Bins should be associated with seating locations where people are likely to congregate, rest or pause. Litter bins should be constructed/finished using high quality, robust ‘self-coloured’ materials such as durable timber and/or stainless steel.
			Bollards should be used sparingly and only where necessary or helpful in preventing conflict between pedestrians and vehicles or in distinguishing the areas available for vehicles.
			Bollards should meet best practice guidance for visibility for people with visual impairments with coloured reflective bands where suitable.
	8.2.1	**Amenity and play**	All outdoor play should be inclusive to children with varying physical and sensory abilities and accessible to children and carers who use wheelchairs.
			Play equipment or features should be safe, innovative, open to interpretation, flexible in use; offering opportunities for imaginative play and improving physical, mental and social abilities.
			Children play areas should use varied materials to encourage connection with natural world and imagination. The use of natural materials is encouraged.
Uses	**9.1.1**	**Active frontages**	Developments on primary mixed-use streets should maximise active frontages by entrances, windows, and ground floor by programming that can promote around-the-clock activity on the street and provide passive surveillance.
	9.2.1	**Improving high street backlands**	Dimensions - Any new building should respect neighbouring building’s right to light.
			Servicing - A building’s servicing yard should be embedded within the built form/street block, with access being from the high street or alley.
			Access - Commercial uses should be accessed via the main road, with residential entrances sitting adjacent to enhance the active facade.
			Public realm - Buildings should have well designed relationships with surrounding public realm. Existing routes should be retained and enhanced through accessibility improvements, surface maintenance and the introduction of planting where appropriate.
	9.2.2	**Improving other backlands**	Dimensions - Any new infill building should be subordinate to the scale of surrounding buildings.
			Servicing - Servicing the commercial buildings/uses should be considered.
			Access - Access to dwellings should aim to be on multiple edges to help activate the frontage.
			Public realm - Homes should have well designed relationships with surrounding public realm, with clear demarcation of defensible zones and private outdoor amenity spaces.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Homes & Buildings	**10.1.1**	**A good home**	New homes should be built to a standard set out in the Secured By Design Homes 2023 to ensure their long term security and safety.
			A diverse mix of tenure should be delivered across the development to enable social inclusion and cater for a wide variety of groups ranging from the elderly to young, growing families.
			A minimum 5% of new homes should meet Building Regulations standard M4(3) 'wheelchair user dwellings' on sites of 20 or more new homes.
			It is recommended that M4(2) dwellings are distributed throughout the ground floor of new developments to offer easy access to parking and a range of aspects, views and unit sizes.
			New homes should be designed to Lifetime and Wheelchair Home standards, to ensure they are more accessible and adaptable, allowing people to live independently for as long as possible, and providing greater choice for disabled people who cannot achieve independence due to lack of suitable housing.
			New developments should follow the recommendations of the Housing our Ageing Population Panel for Innovation (HAPPI) report to enable people to live healthy, active lives and maximise the opportunities for community diversity, inclusion and cohesion.
	10.2.1	**Ground level and upper level amenity**	An appropriate size outdoor amenity space should be provided for each home in accordance with Figure 10.5 as a minimum.
			Apartments should be provided with private amenity space in the form of a balcony or terrace, where other amenity space, such as a communal garden, is not available. If the site is located within an Area Quality Management Area (AQMA), a bespoke solution may need to be considered.
			Apartments should be provided with private amenity space in the form of a balcony or terrace, where other amenity space, such as a communal garden, is not available. If the site is located within an Air Quality Management Area (AQMA), a bespoke solution may need to be considered.
			Private amenity space including boundaries should be designed with reference to 'Secured by Design' standards and recommendations.
	10.2.2	**Front curtilage**	Adequate defensible space, of a minimum depth of 1m, should be provided where ground floor residential uses are proposed.
			Public/private spaces should be clearly delineated with boundaries such as walls, fencing or planting, to indicate management responsibilities and improve safety and security.
			Where possible, hedges and planting should be used instead of, or in addition to, fences or walls as boundary treatment to create a green street character and to maximise biodiversity.
			At plot access points, a hard landscaped pedestrian path within the defensible space zone should be provided for wheelchair and bin access. Single-step transitions should be avoided where possible to minimise trip hazards.
	10.2.3	**Rear curtilage**	A minimum 22 metres back-to-back distance between facing windows of habitable rooms should be achieved to retain sufficient privacy and outlook (Fig 10.11). This does not apply in mixed use areas. On some constrained sites, where standard minimum separation is not possible, innovative design solutions could be used (Fig 10.13).
			In mixed use area types, the separation distance between rear facing windows may be reduced from 22 metres subject to incorporating design features that enable avoidance of loss of privacy and light, for example by using angled windows (Fig 10.12).
			Side facing windows above the ground floor should not overlook neighbouring private amenity space or habitable room windows at a distance of less than 10 metres.
			Gardens should be accessible to disabled and elderly users.
	10.2.4	**Refuse storage**	The storage areas for communal bins should: • Be at ground level. • Allow enough space for the bins required by the property. • Allow for filling and emptying of the bins and provide a clear space of 15cm between bins. • Should be sited so that the bins do not need to be taken through a building or across designated parking spaces. • Be conveniently located for residents and should be no further than 30 metres from the entrance door.
			Where bin storage is included within the rear garden space, this should be in addition to the minimum internal bin storage space requirements and be directly accessible from the street.
			Each individual bin should be accessible, with collection operatives able to empty it without needing to remove other containers.
			All doors (where applicable) for the storage area should open outwards, with a clear opening of at least 1500mm. A facility to hold open the doors during collection should be installed.

List of guidance			
Chapter	**Section**	**Topic**	**Design guidance**
Resources	**11.1.1**	**Limiting energy demand**	All applications should make the fullest contribution to minimising carbon emissions and responding to the climate and biodiversity emergency. The following principles should underpin the development of design proposals and should be used wherever possible: • Ensure the very latest sustainability guidance, targets and best practice inform the brief for a site, at the time of writing this includes the RIBA 2030 Challenge, the suite of LETI guidance documents and emerging UK Net Zero Buildings Standard. • Consider sustainable design principles from the very earliest stages of the design process as the potential environmental impacts can be very significant. • Value existing structures and materials embodied on a site and look to re-use these as far as possible. • Understand the local climate context in which a proposed building will be situated including the future climate scenarios and risks. • Adopt passive design strategies to control solar gains and maximise daylighting. • Take a fabric first approach to design energy efficient development, and minimise any future operational need (e.g. manipulate building form and fabric to facilitate natural ventilation). • Incorporate renewable energy technologies to meet any operational needs, and do so in a sensitive manner that maximises energy output and minimises visual impact.
			Current best practice highlights the following aspects that should be considered: • The ratio of external surface area to net internal floor area (form factor) in delivering compact building form to maximise energy efficiency. • Building orientation and window placements to balance daylight, space heating demand and overheating risk. Position spaces that benefit from passive solar gains (e.g. living areas) along south façades, with ancillary spaces (e.g. storage/WC) on the north facade. • Sufficient building shading provision to east, south and west façades, to mitigate overheating risk and mechanical cooling demand. • All units should be dual aspect homes to enhance cross ventilation and support overheating risk mitigation. • A whole building airtightness strategy.
			The Council encourages home owners: • To take the opportunity to reduce operational carbon emissions when work is undertaken. • For any post-occupancy monitoring results to be provided to the Council to support wider learning. • To install in-home energy displays to monitor ongoing energy consumption to influence user behaviour.
Lifespan	**12.1.1**	**Building less (and wisely)**	Proposals for new residential buildings should carry out a Life Cycle Assessment (LCA).
			Life cycle assessment should incorporate life cycle stages A1-A5, and include substructure, superstructure, MEP, facade and internal finishes as a minimum. The RICS Professional Statement Whole Life Carbon provides a useful methodology for calculation.
			Circular Economy Statements could be prepared detailing the information as usefully set out by the London Plan (2021) Policy SI 7 and Circular Economy Statement Guidance.
			Work with site topography to limit excavation, or reuse excavated soil on site.
			Design and choose materials to limit embodied carbon.
			Design ‘light’ structures. Substructures and superstructures account for 57% of small scale housing embodied carbon.
			Choose local materials where possible and seek to limit carbon associated with transportation of materials from extraction to manufacturing to project site.
			Consider carbon associated with the construction and installation process.
			Ensure longevity of materials to limit maintenance and replacement over time.
			Provide justification for the demolition of existing buildings. First consider retrofit of existing buildings or reuse of substructures / superstructures.
			Design buildings to be flexible so that they can adapt to users’ needs over time, for example through loft conversion or internal reconfiguration.
			Consider how a building might adapt to a different use over a longer period, as Victorian and Georgian homes have shifted across retail, employment and residential uses.
	12.2.1	**Management plans**	Management Plans should clearly set out the responsibilities for management of each part of the development including streets and open spaces that might be adopted by Elmbridge Borough Council and Surrey County Council, and shared spaces where these may be jointly or privately managed.
			Longer term stewardship requirements and implications also need to be considered, with management plans identifying when these aspects should be reviewed or a stewardship plan be triggered.

1.5 Application of the Design Code

1.5.1 The Design Code is a borough-wide code applicable across Elmbridge, together with the specific Area Type related requirements applicable in the urban environment. This follows our engagement with local communities that informed aspirations for the settlement areas.

1.5.2 The borough's urban areas that lie outside of the Green Belt designation have been categorised into Area Types based on their common design characteristics. The Elmbridge Design Code provides specific requirements and guidance for these Area Types as described in the Context section. In addition, there are general borough-wide requirements and guidance applicable across the borough. These are expressed as Mandatory and Advisory categories within the Code.

1.5.3 The Code sets out the scale and type of new residential, commercial and public realm development for which there are specific and/or the borough-wide design requirements as set out in the Design Code Index table.

1.5.4 Applicants are required to complete a Design Code Compliance Form to demonstrate compliance of the proposed development with the relevant design parameters within the Design and Access Statement. This form will be provided separately.

1.6 The design process

1.6.1 The design process is expected to follow good urban design principles set out in the National Design Guide and the National Model Design Code.

1.6.2 Applications must be accompanied by a Design and Access Statement that includes a contextual analysis, as well as an explanation of the principles of design. It must set out how the proposal makes a positive contribution to the local environment and creates a contextually designed place with a distinctive local character which sits comfortably within its immediate and broader setting.

1.6.3 Developing a comprehensive and thorough appreciation of the context should facilitate an original, creative solution. There are likely to be multiple design solutions based on traditional, transitional, contemporary or innovative designs, however any design solution needs to be informed by its context.

1. Analyse the site and surrounding context to understand the constraints and opportunities. Looking at physical characteristics, social factors, understanding historic development of the area

2. Explore the historic processes and factors that have influenced the form of development, including settlement morphology, pattern of plots, form of boundaries, past uses, materials, and detailing, movement patterns and townscape

3. Identify positive factors in the area which gives it its identity and character

4. Identify any negative aspects and consider how these could be improved

5. Identify existing relevant evidence and guidance

6. Establish a sustainability baseline

7. Report this analysis to provide a strong base for visioning and detailed design. This reporting stage should be accompanied by supporting plans, drawings and photographs

8. Prepare proposals demonstrating how you have taken account of the parameters, local character and historic context, as well as viability through a design-led approach.

9. Processing through pre-application meeting(s) with officers and engagement with local communities in line with the Council's Statement of Community Involvement to refine the design based on the above approach, before making a final submission

1.6.4 Choosing the appropriate design approach

Applicants must explain their chosen design approach and why it is an appropriate response to the local character.

Fig 1.5 Traditional - Directly reflects the local vernacular and historic architectural styles, materials and features. Positives: suited to highly sensitive, heritage rich places such as Conservation Areas. Negatives: Risk of pastiche, unimaginative replication of past building types

Fig 1.6 Transitional - Seeks to combine elements of traditional and contemporary architectural design. Positives: suited to areas that are sensitive, heritage rich places such as Conservation Areas. Negatives: Requires a greater degree of design sophistication and subtlety. Risk of uncharacteristic incoherence

Fig 1.7 Contemporary - Offers a greater degree of simplicity and abstraction. Typically built via modern methods of construction. Positives: Innovative design that is honest about its age, construction methods that allow more homes to be delivered. Negatives: Risk of dull, block-like and generic design that does not relate well to its context.

Fig 1.8 Innovative - A departure from both the traditional and modern approaches. Innovation could be technological or design-related. Positives: Advances design creativity and leads to original architectural forms. Can raise standards of sustainability. Negatives: Requires a greater degree of design sophistication and subtlety to deliver. Risk of uncharacteristic incoherence

1.7 Design and Access Statement

1.7.1 Designers need to explain and justify the choices made which will achieve high quality outcome by providing a contextual survey and analysis.

1.7.2 Carrying out a contextual survey is a process where the designer spends time recording and mapping what the environment is like in the wider area around the site as well as the analysis of the site itself within the context of the settlements. The process involves looking at physical characteristics of the place and depending on the scale and nature of the development proposal, also the social factors (such as community make-up and needs and gaps in provision).

1.7.3 The existing character of an area has been influenced by numerous factors. Understanding context includes the appreciation of how the area has developed by reference to the historical mapping provided in the StoryMap, which has influenced and defined its present landscape and, townscape character, and movement pattern and activity.

1.7.4 In areas with a strong historic character, such as conservation areas or locations containing buildings of strong heritage, particular attention should be given to exploring the processes and factors that have influenced the form of development, including the settlement morphology, pattern of plots and forms of boundaries, present and past uses of space and the form, materials and detailing of buildings.

1.7.5 The outcome of the analysis should be included in a report with supporting plans, drawings and photographs demonstrating how the findings informed design decisions.

1.7.6 Good contextual analysis identifies key positive and negative factors which give the immediate locality and wider settlement its identity and character.

1.7.7 Any negative aspects should prompt, considerations about how to improve the character.

1.7.8 The analysis needs to set out the site constraints and opportunities that help shape the design process and stimulate creative design solutions.

1.7.9 This diagram sets out the model content for a Design and Access Statement for a typical development of 10+ homes or equivalent mixed use development. Not all the requirements may be justified or necessary for all developments and need to be proportionate for the scale of development.

1. Analyse the site and surrounding context to understand the constraints and opportunities. Looking at physical characteristics, social factors, understanding historic development of the area

2. Explore the historic processes and factors that have influenced the form of development, including settlement morphology, pattern of plots, form of boundaries, past uses, materials, and detailing, movement patterns and townscape

Set of analysis plans to be prepared (and submitted as part of DAS) exploring existing context:

- Historical evolution of site and wider neighbourhood (showing at least two historic maps and current day)
- Figure ground and plot divisions
- Existing character (drawing on area types and settlement area descriptions
- Movement and street hierarchy (drawing on SCC street types)
- Building heights
- Density (drawing on character study plans)
- Character of public realm, streets and green space
- Photographic analysis and appreciation of:
- Building character and typologies
- Materials

3. Identify positive factors in the area which gives it its identity and character

4. Identify any negative aspects and consider how these could be improved

Conclusions:

- Constraints and opportunities plan
- Special qualities of site and surrounding neighbourhood
- Issues and negative aspects that could be improved
- Threads of local character to be used as basis for design response
- Identify features from Secured By Design to built in safety and crime reduction measures in and around the development

5. Identify existing relevant evidence and guidance

The set of policies in the current Local Plan and guidance in the Supplementary Planning Documents together with other documents set out in chapters 5 to 12 below should be used and referred to in the DAS

6. Establish a sustainability baseline

- Assessment of existing structures and materials on site and the opportunities to re-use and adapt these
- Analysis of any resource pressures/constraints
- Projection of future climate scenarios and any risks to be addressed

7. Report this analysis to provide a strong base for visioning and detailed design. This reporting stage should be accompanied by supporting plans, drawings and photographs

Above analysis to be submitted as part of DAS

8. Prepare proposals demonstrating how you have taken account of the parameters, local character and historic context, as well as viability through a design-led approach.

Design process to be documented including options development and appraisal.
In future this will likely include whole life carbon assessment comparison (once the future Local Plan is in place)

9. Processing through pre-application meeting(s) with officers and engagement with local communities in line with the Council's 'Statement of Community Involvement' to refine the design based on the above approach, before making a final submission.

2 Borough-wide context

An understanding of the context, history and character of an area must influence the siting and design of new development. This includes the Borough-wide and Surrey context.

2.1 Borough-wide characteristics

2.1.1 New developments need to respond well to their immediate context (site and area type), the local context (settlement area visions) and wider context (borough characteristics). The Design Code has identified some positive borough-wide characteristics that this document seeks to reinforce. Elmbridge is a varied borough and the area types identified in the Code occur across the 8 settlement areas. These characteristics include:

- **A borough of variety with distinctive and characterful places.**
- **A borough with a series of local centres that serve their diverse communities and support the sustainable growth of the borough.**
- **A borough with a sense of generosity in its streets and spaces.**
- **A borough which values its proximity to nature.**
- **A borough with an abundance and variety of green open spaces.**
- **A borough with a variety of riverside environments - both natural and more formal.**
- **A borough with Arts & Crafts heritage that values its Surrey vernacular.**
- **A borough with well-defined public and private spaces.**

Fig 2.1 Elmbridge is a varied borough and the types of homes are recurring within each of the neighbourhoods

Fig 2.5 A variety of riverside environments

Fig 2.2 Abundance and variety of green open spaces

Fig 2.3 A borough with defined public and private spaces

Fig 2.4 A place of many centres

Fig 2.6 Surrey vernacular and Arts & Crafts heritage

Fig 2.7 Generosity of space

Fig 2.8 Proximity to nature

2.1.2 The character within the borough is shaped by features including the waterways, green open spaces, and the railways and major roads.

2.1.3 The north-east of the Borough is strongly influenced by the London suburban character. This is evident in areas around Hampton Court Bridge, East Molesey, Thames Ditton and Long Ditton.

2.1.4 The Surrey Urban Vernacular encapsulates much of the Borough and penetrates through many of the early 20th century estates to the central belt of Elmbridge. This vernacular has a reliance on the use of materials with Arts and Crafts (3, 5, 6) inspired design. It is strongly characterised by the use of high-quality materials; handmade red brick, peg tiles (1, 2) and oak-timber-framing (4). This is evident in areas such as Cobham, Walton, Hersham and Weybridge and some areas of Claygate. The south and south-west of the Borough is largest influenced by the open countryside and comprises the 'rural vernacular', which is characterised by the functional use and form of materials, such as timber framing, which dictate the scale and form of buildings. The local landscape also largely shapes the character, including both the open views of uninterrupted countryside and natural features including greens, grass verges and historic hedge boundaries.

Fig 2.9 Examples of characteristic material and architectural features

2.2 Area types

2.2.1 The whole borough and each of the settlement areas have been analysed in detail to inform a set of area types. These define types of built forms that have different characteristics and which are common in settlements across the borough. The area types are used in design codes to set specific requirements and design parameters for new development. For Elmbridge it is particularly informative as the same characters of development and streets occur in different parts of the borough. Whilst there may be very subtle differences, in the main an area type such as suburban residential has the similar core characteristics whether it is in Claygate or Weybridge.

2.2.2 Applicants are required to appreciate the characteristics of the area type(s) within which their site lies. Codes and guidance identify different design parameters for different area types to direct the most sensitive and appropriate form of development.

2.2.3 The area types are divided into primarily residential and non-residential types and then into specific area types depending on their over-riding characteristics.

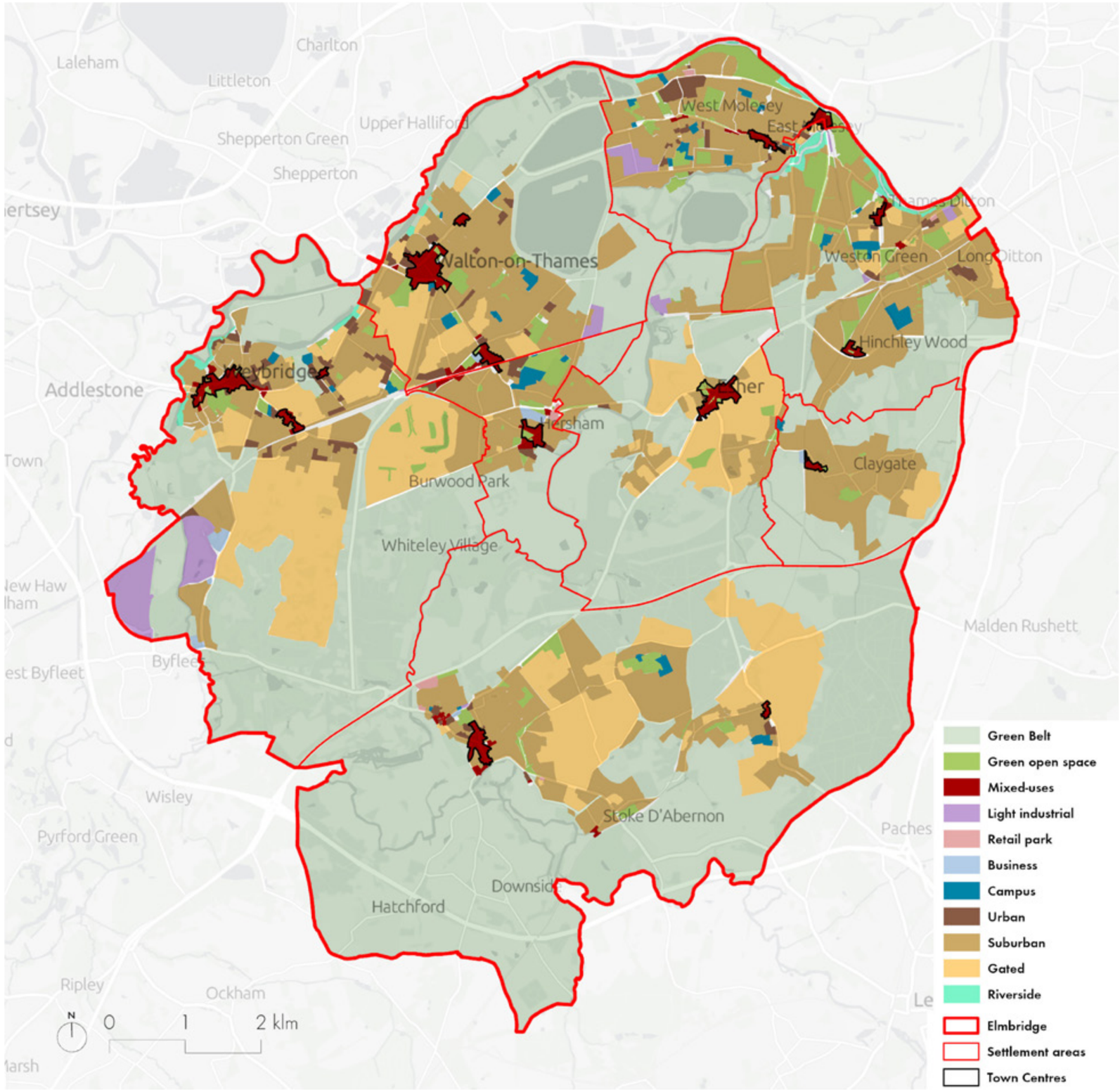


Fig 2.10 Classification of area types across the borough

2.3 Green Belt

2.3.1 Green Belt comprises 57% of the borough and although it is not an environmental designation, it contributes to a strong sense of open, green countryside resulting in a semi-rural character in some southern parts of the borough. The reason for this is the fundamental aim of the national Green Belt policy, which is to prevent urban sprawl by keeping land permanently open.

2.3.2 Due to the nature of the predominant form of new development in the borough being smaller scale developments - infills, redevelopment and backland development - taking place in the urban areas, the Design Code does not identify specific area types beyond these, i.e., in the areas designated as Green Belt. However, it offers the overarching design principles that must/should/could be met by the new developments across the borough, whether in the urban area or in Green Belt.

Fig 2.11 Examples of the green characteristic within Elmbridge

2.4 Residential-led area types

Urban

2.4.1 The urban residential area type in Elmbridge includes both traditional terraces and more modern typologies which tend to be of a higher density and more in the form of flatted homes.

2.4.2 Terraced houses are primarily a product of the Victorian and Edwardian periods, and are arranged in a compact layout often found near Elmbridge's centres. This regular grid forms a permeable structure which allows for easy pedestrian legibility.

Fig 2.12 Terraced

2.4.3 Modern typologies encompass modernist architecture, post-war housing and 21st century developments which tend to be at a higher density and scale. These can be seen in and around the borough's centres.

Fig 2.13 Modern

2.4.4 Building heights are a minimum of 2 storeys, and densities are moderate, with a minimum Floor Area Ratio (FAR) of 0.4.

Suburban

2.4.5 The suburban residential area type in Elmbridge takes in a range of suburban housing forms including classic semi-detached streets as well as more formally arranged Garden City style housing, 20th century cul-de-sacs and extensive areas of detached housing.

2.4.6 Semi-detached: Streets vary from a regular grid to a more flexible curved grid. Homes are at a low to medium density with front and back gardens. Elmbridge's semi-detached homes vary in architectural style from early 20th century to modern buildings.

2.4.7 Garden suburb: These blocks have a planned, repetitive layout organised around set pieces. These homes have large, spacious plots with generous front and back gardens. They have a signature architectural style.

2.4.8 Cul-de-sacs: Short terraces of low scale, residential buildings arranged in a free form, irregular structure. These homes are typically smaller than other housing types in Elmbridge, and have parking on their front gardens. They range in architectural style.

2.4.9 Detached: These are the lowest density type of residential perimeter block; detached homes set within generous plots both wide and deep. These homes often have generous front gardens and are set well back from the street, appearing in a variety of architectural styles.

2.4.10 Building heights are generally 2 storeys, with a Floor Area Ratio (FAR) around 0.4.

Fig 2.14 Semi-detached

Fig 2.15 Garden suburb

Fig 2.16 Cul-de-sac

Fig 2.17 Detached

Gated

2.4.11 The gated residential area type is extensive in Elmbridge. It makes up over a third of all residential neighbourhoods in the borough.

2.4.12 Low density, very large homes typically detached sitting on spacious plots. The homes range in architectural style between Victorian & Edwardian, Arts & Crafts and modern mansions. These gated estates have wide roads connecting the internal estate network with deep verges and dense mature shrubbery.

2.4.13 Building heights are 1-3 storeys, with a Floor Area Ratio (FAR) of 0.2-0.6 which reflects the comparatively large houses in this area type.

Fig 2.18 Gated

Riverside

2.4.14 The riverside residential area type is a small but important one in Elmbridge. It takes in homes which back on to or front on to rivers and waterways, including those within the river course itself on Garrick's Ait.

2.4.15 Homes with both their fronts and backs to the borough's rivers, seen throughout Elmbridge at all scales and of all architectural styles.

2.4.16 Building heights are 1-2 storeys, with a Floor Area Ratio (FAR) of 0.1-0.5.

Fig 2.19 Riverside

2.5 Non-residential area types

Mixed use

2.5.1 The mixed use area type takes in all of the town centres, small centres and local parades across the borough.

2.5.2 Often evolving from a historic centre, they are intensely urban environments with a strong focus on commercial and retail uses. Typically the scale of the buildings are slightly taller than the residential hinterland and have a range of architectural styles.

2.5.3 Supplementing Elmbridge's mixed use centres, local parades are short stretches typically characterised by terraced buildings of shops and eateries to cater for convenience needs. These terraces can be plain, or include more architectural detail.

2.5.4 Building heights are 2 storeys and above, and densities are moderate to high in comparison to the residential areas of Elmbridge. Floor Area Ratios (FAR) are the highest for this area type with a minimum of 1.0.

Fig 2.20 Mixed-use areas in local centres across Elmbridge

Light industrial

2.5.5 The light industrial area type comprises the industrial estates found across the borough which total around third of the non-residential land built up area.

2.5.6 This area type is characterised by large footprint warehouses and sheds with little architectural character, arranged in a loose grid layout often dominated by a hard landscape of surface car parking and servicing areas.

2.5.7 Building heights are 1-2 storeys, and densities are low to moderate. Residential accommodation has not traditionally formed part of these areas. Floor Area Ratios (FAR) are generally between 0.4 and 1.0.

Fig 2.21 Light industrial (e.g. Molesey Industrial Estate)

Retail park

2.5.8 The retail park area type is very limited in the borough comprising only 2% of the non-residential built up area.

2.5.9 This area type is typified by large footprint buildings accommodating retail uses such as supermarkets, hardware stores and petrol stations/services, located away from existing centres. The borough's retail parks have a limited street network and tend to only provide slow movement around a mass of car parking.

2.5.10 Building heights are 1-2 storeys, and densities are low to moderate. Residential accommodation has not traditionally formed part of these areas. Floor Area Ratios (FAR) are generally between 0.4 and 0.6.

Fig 2.22 Retail park (e.g. Cobham services)

Business

2.5.11 The business area type comprises the business parks and larger office developments located outside of town centres.

2.5.12 Much like industrial, the business area type is dominated by large footprint office buildings arranged in a loose grid with a significant amount of parking. Business park buildings range from mid-century offices to modern bricked offices.

2.5.13 Building heights are 2 storeys and above, and densities are low to moderate. Residential accommodation has not traditionally formed part of these areas. Floor Area Ratios (FAR) are generally between 0.3 and 2.0.

Fig 2.23 Business (e.g. GSK, Brooklands Park)

Campus

2.5.14 The campus area type takes in 12% of the non-residential built up area and is predominately made up of school and college sites.

2.5.15 The campus area type is characterised by large freeform buildings set amongst a large amount of green space or parking, dependent on the use. Campus environments are well spread throughout the borough and generally have one use per campus, for example, a hospital, school or other institutions. There are additional campus type developments within the Green Belt too.

2.5.16 Building heights are 1-3 storeys, and densities are low to moderate. Residential accommodation has not traditionally formed part of these areas. Floor Area Ratios (FAR) are generally between 0.1-0.4.

Fig 2.24 Campus (e.g. Esher Sixth Form College)

3 Local characteristics

An understanding of the context, history and character of an area must influence the siting and design of new development. This context includes the immediate surroundings of the site, the neighbourhood in which it sits and the wider setting.

3.1 Claygate 2023

The key characteristics of Claygate as identified by the residents are:

- Claygate has a village feel and character.
- The small historic local centre focused around confluence of streets.
- There are two centres in Claygate: The Parade by the station which has a commercial role, and the historic centre which now has a social role.
- Farms edge the settlement for much of its extent.
- There is less through-traffic compared with other settlements close by like Esher.
- Lack of through route protects the settlement from traffic.
- There are frequent access points out into surrounding countryside. Claygate Common is a particularly well loved feature, with good walking access.
- There is a mix of old and modern housing which generally sits well together.

Fig 3.2 Attractive detached homes which are inconsistent in age and built character

Fig 3.5 Allotments which bring the community together and encourage food growing

Fig 3.3 Green and wooded land, providing a place for leisure and walking

Fig 3.6 Mix of historic and contemporary architecture

Fig 3.4 Ruxley Towers and other heritage assets

Fig 3.7 Village feel and sense of community

Fig 3.1 Challenges in Claygate and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Maintain a diverse, independent and vibrant local centre	Support existing valued local services by encouraging the community to shop local. Identify new opportunities to help encourage the population to use the parade in different ways such as new business spaces or community services.
Impact of parking and traffic on the quality of the environment	Balance the needs of pedestrians and traffic by enhancing the outdoor public spaces with street trees and meeting spaces to reinforce Claygate's function as a small local centre. Cycle facilities should also be encouraged.
An underused station car park	Consider future options for the station car park which could include partial development for new homes, new public space or a diversified parking strategy to allow short term parking to support the local centre.
Residential area	
Mix of housing styles and types could lead to developers not fully understanding key local characteristics	Identify key characteristics including prevailing height, set backs, parking, greening, building/ plot line, roof line, space between houses, whilst continuing to encourage a mixture of styles and types.
Loss of greenery in residential streets	Incorporate greening and trees into streets of new development and enhance.
A lack of smaller homes available for downsizing	Identify opportunity sites for smaller three bed terraced homes or maisonettes with private amenity space, close to the centre.

3.2 Weybridge 2023

The key characteristics of Weybridge as identified by the residents are:

- Weybridge has very distinctive area types with different characters including tree lined avenues with setback houses, historic terraces, Victorian and Edwardian streets and post-war areas such as the Span Estates, as well as the unique Whiteley Village.
- The watercourses of the River Wey, Wey Navigation, River Thames as well as Desborough Island and Broadwater Lake are very important. As are the green spaces which characterise areas both individually and collectively.
- The town centre has a strong structure which has supported layers of change resulting in a mix of buildings with some stand-out landmarks including St James' Church and spire. The centre has evolved over history and still retains four distinct shopping areas with their own characters.
- Brooklands is an important destination for residents and visitors but is not well integrated into the rest of the town. Adjacent to this is the business area of Brooklands which is an important local employment hub.
- There are many residential areas which largely comprise extensive, high quality and gated neighbourhoods with large detached properties with some in private estates, including St Georges Hill.
- Weybridge settlement comprises 6 conservation areas: Weybridge Monument Green, Weybridge, Wey Navigation, Weybridge Templemere, Brooklands and Whiteley Village Conservation Areas.

Fig 3.9 Attractive town centre with distinctive and historic buildings

Fig 3.10 Pockets have been built with their own distinctive styles, including Span estates (Span Estate, Templemere, credit Google Earth)

Fig 3.11 Modern and innovative architecture (Dunton House, credit Google Earth)

Fig 3.12 Residential streets with historic architecture with varied roofscapes and front gardens (Dorchester Road, Weybridge, credit Google Earth)

Fig 3.13 New development in the style of older architecture

Fig 3.14 Green character permeates residential areas (Staniland Drive, Weybridge, credit Google Earth)

Fig 3.8 Challenges in Weybridge and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
A highly trafficked and inconsistent quality to the High Street, including the risk of losing greenery to new development	Explore ways to ease traffic and prioritise pedestrians and cyclists. Identify opportunities for additional greening in the centre and ensure new development incorporates this effectively. Look for opportunities to code for shopfront signage, pedestrian access and experience, traffic management, as well as suitable parking provision/ location.
Taller and bulkier development that is coming forward is uncharacteristic	Identify prevailing height, plot size, materials, building line and roofscape in centre and translate these to clear parameters so that new development is in keeping with character.
Space in town centre is not used as efficiently as it could be	Identify how upper units on the High Street can be made more flexible and attractive to tenants by reconfiguring space.
A poor integration and use of Brooklands	Identify opportunities to create cycle and walking paths, green infrastructure and innovative intensification around Brooklands.
Residential area	
Larger properties and plots are being subdivided and developed and can compromise the style and scale of area.	Identify the parameters for sensitive subdivision to stop inappropriate densification.
Poor walking and cycling routes to key nodes including centre, station and green space	Create and/or improve direct walking and cycling routes from residential areas to centre, station and green spaces.
Losing front gardens to parking leading to a loss of green infrastructure and increase flooding risk	Code for greening of front gardens alongside parking. Identify further opportunities to green the public spaces in residential streets.
Gated communities and housing can give an unwelcoming and urban feel	Code for ways to avoid new development being gated, or approach in a friendlier way such as through hedges or trees.

3.3 Hersham 2023

The key characteristics of Hersham as identified by the residents are:

- There is a small centre with key services and leisure facilities focused around Hersham Green, which underlines the green and open character of the area and is a conservation area.
- Housing is relatively and predominately low density and suburban.
- There is a lot of farm land and rural areas surrounding the settlement, including the golf course to the north east. This is balanced with a busy local centre with a strong community feel.
- The River Mole is defined by its wild set of public green spaces. There are lots of places to walk in nature.
- There is a significant amount of 1930s and 50s council housing, and 1960s-80s semi-detached housing, as well as smaller Victorian terraces and Surrey vernacular with Arts and Crafts homes.

Fig 3.16 Surrey vernacular and traditional architecture permeates throughout the area (West Grove, Hersham, credit Google Earth)

Fig 3.19 Opportunities for greening in residential streets (Endsleigh Gardens, Hersham, credit Google Earth)

Fig 3.17 Semi-detached housing is a prominent typology (Thrupps Lane, Hersham, credit Google Earth)

Fig 3.20 The Green provides an open backdrop and character

Fig 3.18 Modern architecture has been introduced to the central areas (Queens Road, Hersham, credit Google Earth)

Fig 3.21 New housing schemes are expanding the area (Jubilee Meadows, credit Google Earth)

Fig 3.15 Challenges in Hersham and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Loss of shops on the Waitrose site threatens some businesses	Strengthen Hersham's centre as a thriving local service centre through improving the street environment and creating ground floor retail opportunities.
The character of the Green and central area could change if the design of future development is not carefully considered	Ensure new development in this central area incorporates greenery, suitable uses, scale and massing, height and materials in keeping with the character of the area, and consider retrofit, rather than rebuild.
There is an ageing population	All new developments must consider accessibility to all and might include specialist retirement housing.
New development could cause a strain on current services and facilities	In partnership with the infrastructure providers agree the level of the necessary additional services to bring the new development forward without impeding on the existing provision available to the existing residents.
Residential area	
Riverside access could be improved	Support better quality access to the riverside through identifying ways that upgrade or extend paths.
Paving over front gardens leads to a loss of green character	Support green streets through integration of foliage and greenery with generous space for gardens between homes and roads, whilst being able to accommodate off road parking. Ensure greenery and parking is accommodated off road in any new development.
Some of Hersham's streets and spaces have a lack of greenery	Enhance routes to the green spaces from residential areas and protect and enhance street greenery, including trees.

3.4 Cobham 2023

Cobham-specific characteristics as identified by the residents are:

- There are extensive areas of generally detached houses and private residential areas with wide roads, green verges and detached homes on large plots.
- Painshill Park is a historic asset that is well-loved for leisure and just off the Portsmouth Road.
- Cobham's position and aspect - set alongside the River Mole and its floodplain, looking out over the wider Green Belt - is attractive and valued by local residents. There is a semi-rural character at the settlement edge on the border with Green Belt.
- Cobham has strong green character at its settlement edge, as well as within.

Fig 3.23 Cobham High Street has a strong historically architectural presence

Fig 3.26 Residential streets are characterful pepper-potted with distinctive housing styles.

Fig 3.24 More modern designs have started to be mixed in to the existing vernacular

Fig 3.27 Heritage is evident, particularly around the River Mole

Fig 3.25 Set back houses with front gardens and parking spaces create a sense of space (Vincent Road, credit Google Earth)

Fig 3.28 Strong green character at settlement edges (Photo: Leg of Mutton field)

Fig 3.22 Challenges in Cobham and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Ensure new development does not decrease street greening	Identify areas for increasing street greening to strengthen green infrastructure and consider continued maintenance.
How to maintain Cobham's vibrancy and role as the main centre	Enhance Cobham's vibrancy to verify its role and function as the area's central commercial area. For example coding for outdoor seating for cafés and restaurants, street greening, shopfronts, parking.
Congestion can be an issue and active travel could be improved	Identify streets where walking and cycling routes could be introduced successfully, safely, and accessibility while balancing the needs of pedestrians/cyclists and traffic/parking.
New developments along the high street are not in-keeping with local character	Identify local characteristics along the high street and associated roads in terms of architecture, shopfront design, building line, roofscape etc and ensure that development adheres to this. This will maintain a visual identity for the high street.
Residential area	
Gated neighbourhoods and houses are not in keeping with the original character and cause problems/ congestion on main roads waiting for gates to open	Encourage greater integration in future development and identify new ways to distinguish between public and private space e.g. through use of greenery.
Green infrastructure and natural environment is lost through paving over of front gardens, and increases concern over flooding	Code for greenery at the front of buildings in new development and strengthen guidance on sustainability and flood management.
Lack of parking spoils the character of the area	Ensure that new development, especially flats have integrated car parking which is ideally out of sight.
New developments all look the same and lots mimic older architecture	Identify key characteristics from area and look for ways that these can be integrated into new development in a modern guise.

3.5 Oxshott 2023

Oxshott-specific characteristics as identified by the residents are:

- Oxshott centre is distinctly different in its retail offering to Cobham, with largely independent rather chain stores.
- Views across Oxshott from the Heath and surrounding green and wooded areas are locally valued. There is a semi-rural character at the settlement edge.
- The majority of the settlement comprises areas of detached houses set on large plots in private residential roads.
- Generally green character throughout settlement with high incidence of trees and hedging.
- Through-traffic on the A244 from vehicles coming off the M25 and A3 is very heavy at times; in addition to the school run traffic.

Fig 3.30 The landscape setting of Oxshott is key to its character

Fig 3.33 Oxshott High Street is a cluster of diverse buildings housing primarily independent shops

Fig 3.31 Enclosed historic nature of Oxshott High Street opens out to grass and trees

Fig 3.34 The greenery in the front gardens of Oxshott's terraces is a key characteristic

Fig 3.32 Strong and green boundary treatments

Fig 3.35 Green Belt land surrounds the settlement

Fig 3.29 Challenges in Oxshott and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Ensure new development does not decrease street greening	Identify areas for increasing street greening to strengthen green infrastructure and consider continued maintenance.
How to maintain Oxshott's vibrancy and vitality	Support Oxshott's centre as an important asset for local people underpinned by independent traders. Scope to support appropriate changes of uses.
Active travel could be improved	Identify streets where walking and cycling routes could be introduced successfully, safely, and accessibility.
Heavy and dangerous traffic along A244	Consider reviewing highway safety measures with Surrey County Council Highways.
Residential area	
Gated neighbourhoods and houses are not in keeping with the original character and cause problems/ congestion on main roads with waiting for gates to open	Encourage greater integration in future development and identify new ways to distinguish between public and private space e.g. through use of greenery.
Green infrastructure and natural environment is lost through paving over of front gardens, and increases concern over flooding	Code for greenery at the front of buildings in new development and strengthen guidance on sustainability and flood management.
Parking is spoiling the character of the area	Ensure that new development, especially flats have integrated car parking which is ideally out of sight.
New developments all look the same and lots mimic older architecture	Identify key characteristics from area and look for ways that these can be integrated into new development in a modern guise.

3.6 Stoke D'Abernon 2023

Stoke D'Abernon-specific characteristics as identified by the residents are:

- Stoke D'Abernon has its own character with a local parade, post office and garden centre.
- It has a unique feel, despite being in proximity to Cobham.
- The railway station connects the area to London and Guildford.
- Stoke D'Abernon has well-loved recreation space, playing fields and a playground.
- There are large patches of Green Belt land that lie between Stoke D'Abernon and Oxshott that people feel are under valued. There is a semi-rural character at the settlement edge.

Fig 3.37 Station Road parade is an important local asset and attractive environment

Fig 3.40 A distinctive inter-war neighbourhood of detached homes sits next to the station

Fig 3.38 Station is positioned at the southern end of the settlement

Fig 3.41 Street trees and verges alongside front garden planting contribute to green character

Fig 3.39 Grass verges and greenery contribute to the spacious feel

Fig 3.42 Set back houses with front gardens and parking spaces create a sense of space

Fig 3.36 Challenges in Stoke D'Abernon and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Ensure new development does not decrease street greening	Identify areas for increasing street greening to strengthen green infrastructure and consider continued maintenance.
How to maintain vibrancy of local parade	Codes could support the evolution of local parades to keep them vibrant and relevant to local communities.
Active travel could be improved	Identify streets where walking and cycling routes could be introduced successfully and safely, to improve accessibility.
Residential area	
Gated neighbourhoods and houses are not in keeping with the original character and cause problems/ congestion on main roads with waiting for gates to open	Encourage greater integration in future development and identify new ways to distinguish between public and private space e.g. through use of greenery.
Green infrastructure and natural environment is lost through paving over of front gardens, and increases concern over flooding	Code for greenery at the front of buildings in new development and strengthen guidance on sustainability and flood management.
Parking is spoiling the character of the area	Ensure that new development, especially flats have integrated car parking which is ideally out of sight.
New developments all look the same and lots mimic older architecture	Identify key characteristics from area and look for ways that these can be integrated into new development in a modern guise.

3.7 Esher 2023

The key characteristics of Esher as identified by the residents are:

- The historic High Street is distinctive and vibrant but needs support to maintain this and to diversify the retail offer. It is defined as being full of chain shops.
- The countryside feels close by throughout the area and includes the woodland, commons and racecourse.
- There is a sense of openness and space
- West End has a distinctive, historic and significant village character.
- There is a strong Surrey vernacular through the arts and crafts heritage as well as the churches and small terraces.
- Esher is a small town that has a lot of through traffic travelling at speed to other areas. Its roads are under pressure as a result.
- Sandown racecourse is an important destination at the edge of the centre, and includes an important adjacent industrial area.

Fig 3.44 Residential areas with robust and consistent building line (Wolsey Road, Esher, credit Google Earth)

Fig 3.47 More modern designs are present across the area but greenery permeates (Lakeside, Esher, credit Google Earth)

Fig 3.45 The High Street could be helped with some revitalisation and refocusing away from road

Fig 3.48 Esher Green is a key character element and should be celebrated more (Esher Green, credit Google Earth)

Fig 3.46 Esher is home to arts and crafts architecture

Fig 3.49 West End has a village feel with large open spaces (Winterdown Road, Esher, credit Google Earth)

Fig 3.43 Challenges in Esher and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Other local centres are more attractive so people go there instead of to Esher	Encourage better and more diverse range of shops as well as encouraging new uses for vacant uses. Make a more attractive public realm including a focus on pedestrians, street furniture, trees, spill out space and play spaces. Look to implement traffic calming through the centre.
More could be made of the green areas in the centre	Embrace green spaces such as High Street islands and Esher Green, and enhance their access.
Active travel is not as well supported as it could be	Improve connectivity and safety of routes through interventions such as wayfinding, lower speed limits on roads, segregated cycle lanes.
Residential area	
There is a need for new housing and especially affordable homes	Ensure there is a range of typologies for new housing including flats and smaller houses to appeal to younger people and starter homes.
New houses being developed are in neo-Georgian style which is eroding the historic character	Consider key character elements and protect older buildings by considering retrofitting and incorporating sustainability features rather than rebuilding.
Concern over splitting of plots into smaller units or flats and this impacts other infrastructure	Be sensitive about stepping up heights, scale and plot ratio, and ensure infrastructure such as parking and other community facilities an services are considered.
There is a concern about loss of biodiversity and green space	Improve access and quality of green spaces with improved greening and coding for this in the public realm.
Concern over loss of Arts & Crafts heritage through replacement dwelling applications.	Encourage applicants to improve their original Arts & Crafts homes before they consider a replacement.

3.8 East and West Molesey 2023

The key characteristics of East and West Molesey as identified by the residents are:

- The built form follows a distinct east to west curve with more historic buildings in the Old Town in the east and 1930s Howards Houses, the industrial estate and infill sites in the west.
- The green spaces are important to the residents; this includes private and communal gardens.
- Street trees and other urban greening are well liked by the residents but there is pressure within streets given the number of parked vehicles
- Walk-ability is a factor that residents feel the area has.
- Waterways, water bodies and river islands are a key feature of the area. There is a lot of public access at riverside.

Fig 3.51 The views to and from the islands are significant and a key characteristic of the area

Fig 3.54 More modern and innovative designs are pepper-potted throughout

Fig 3.52 Postwar housing in cul-de-sacs with off-street parking and greenery in the public realm

Fig 3.55 Riverfront housing with verandas and balconies are a key feature

Fig 3.53 Greenery is a strong part of the character

Fig 3.56 The retail area has attractive parts, but could be improved overall

Fig 3.50 Challenges in East and West Molesey and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
Greenery is being lost through new development	Ensure that greening is a key part of new development plans and looks at ways in which the public realm can support this.
Local character is being lost or diluted with the introduction of new materials	Strengthen and define local character in terms of typologies, designs, greenery, and local materials and encourage these local design elements in new developments, including on the islands.
Not enough for young people to do	Ensure new development includes space for young people to use and spend time in such as MUGAs.
Residential area	
Parking on pavements is a problem for pedestrians	Ensure new development has ample parking integrated into it to avoid parking in the public realm.
Accessibility to River Mole and River Ember	Enhance access to blue infrastructure through seeking out new connections to the River Mole and Ember and improving the quality of current routes and signage. See rivers as connectors, not dividers.
New developments do not respond to climate crisis including flooding	Encouraging innovation through designs which incorporate sustainability as well as a careful consideration of materials.
Industrial areas adjacent to residential areas do not transition as well as they could	Soften industrial areas immediately neighbouring residential areas through public realm investment and greening to ensure both uses can thrive and work better side by side.

3.9 Walton-on-Thames 2023

The key characteristics of Walton-on-Thames as identified by the residents are:

- River and water bodies are important to local character – the green river frontage and public access is highly valued and is the true character of Walton-on-Thames.
- Street trees are important to local character
- Preserved heritage assets present throughout the area make an important contribution (such as Clock Tower and Admiralty House).
- Area is denser overall than southern parts of the borough, with older streets around the town centre a mix of terraced, semi-detached and detached homes.
- Mixed use town centre which is the borough's main retail centre, has some important and distinctive buildings.
- There is a mix of building characters across the area.
- The sport facilities in the area are excellent.

Fig 3.58 The High Street showcases a strong Surrey vernacular but could be made more vibrant

Fig 3.61 There is a range of housing typologies, but a key characteristic is greening

Fig 3.59 The riverside is well used and well loved. This feels like the 'real' Walton-on-Thames (Walton-on-Thames, credit Google Earth)

Fig 3.62 Some roads have a strong character and prevailing typology

Fig 3.60 The riverside has a mix of uses and is the central leisure area (Walton-on-Thames, credit Google Earth)

Fig 3.63 Incorporating parking into development will help alleviate the public realm from being dominated by cars (Walton Park, Walton-on-Thames, credit Google Earth)

Fig 3.57 Challenges in Walton-on-Thames and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Central area	
The greenery in the centre is not well maintained and therefore does not feel as green as it could be	Enhance greenery in the town centre. Identify opportunities for turning hard space into green space using planting and street trees and ensure that there are well maintained.
Retail centre is not as vibrant as it could be	Look for ways that use of the High Street could be intensified and encourage a better mix of uses to enhance the centre's economic environment and vibrancy.
Local character is being lost with pressure for higher density development	Celebrate the architectural heritage of the town centre and identify ways that historic local character can be translated into modern design of new buildings.
Residential area	
Lack of ample parking in new developments causes parking on roads which in turn causes congestion and dominates the public realm	Code for integrated parking for new development and explore garage/ basement parking to ensure that cars don't dominate the area.
Young people can't afford to buy houses in Walton-on-Thames	Ensure that affordable housing in built in a range of typologies and are a part of plans in larger residential developments.
Single dwellings are being replaced with blocks of flats	Ensure that replacement dwellings are in keeping with the character of the area by identifying key characteristics, such as scale and massing, setbacks, greenery, roofscape and materials and that neighbourhood facilities and services are considered.

3.10 Thames Ditton, Long Ditton, Hinchley Wood and Weston Green 2023

The key characteristics of Thames Ditton, Long Ditton, Hinchley Wood and Weston Green as identified by the residents are:

- Built form varies from fine-grained terraced housing in central Thames Ditton to large detached homes in Long Ditton.
- Strong sense of community.
- Hinchley Wood, St James Park in Long Ditton and Hayward Road in Thames Ditton are architecturally distinctive assigning a particular urban character to this part of the borough.
- The riverside is an important characteristic of the northern communities.
- Strong local centre in Thames Ditton and Hinchley Wood.
- There are number of Conservation Areas with many Designated Listed Buildings, as well as locally listed and significant buildings that add to the character of the area.
- The green spaces are very important to local character and to local people.

Fig 3.65 Many houses are distinctive and characterful

Fig 3.68 There is a range of housing typologies throughout the area (King's Road, Long Ditton, credit Google Earth)

Fig 3.66 The local centres are very important aspect of the area

Fig 3.69 Greenery permeates throughout the streets and should be enhanced

Fig 3.67 Many older properties exhibit rich detailing which supports local character (Imber Park Road, Weston Green, credit Google Earth)

Fig 3.70 Increases in car ownership is resulting in some streets becoming dominated by cars

Fig 3.64 Challenges in Thames Ditton, Long Ditton, Hinchley Wood and Weston Green and future vision and ideas to address these challenges

CURRENT CHALLENGE AS IDENTIFIED BY THE RESIDENTS	FUTURE VISION / IDEAS
Thames Ditton High Street	
Maintain the 'village-feel' of the local centre with an independent and vibrant offer	Support existing valued local services by encouraging the community to shop local to maintain the independent offer. Ensure any new development is in keeping with the existing scale and character.
Other central area	
Support the development of related infrastructure to ensure that the local centres still retain their relevance and usefulness to locals	Encourage and protect the viability and attractiveness of the local centre shops by encouraging a mix of uses.
Connection to the river is not as good as it could be	Improve connections to and along the river through improving the materials, street furniture. Lighting and general safety of the environment.
Residential area	
Distinctive residential areas could easily be lost to new development leading to a loss of character	Ensure that new development takes key characteristics into account such as materials, porches, roofscape and setbacks, but modern design is encouraged.
There is a heavy reliance on cars which means they dominate the area	Encourage more car clubs, e-bike hire, and ensure than new development has ample parking that is out of sight if possible.
Commercial units converted into residential units with reduced amenity	All converted dwellings should have ample indoor and outdoor private and semi-private space, including the use of balconies and patios.
Preserve and enhance access to green spaces	Explore opportunities to enhance existing footways for year-round accessibility to and within green spaces.

4 Movement

Well-designed places should be accessible and easy to move around. This can be achieved through a connected network of streets, good public transport, the promotion of walking and cycling and well-considered parking and servicing.

4.1 Station to centre links

4.1.1 Strong and active links

The routes between public transport nodes and activity hubs such as local centres and High Streets are key active travel connections and are crucial to making active travel a viable alternative to car use, enhancing interchange and providing an attractive public realm, as set out in Healthy Streets for Surrey.

- Active Travel Links should be continuous and use consistent surface treatments.
- Links should provide cycling infrastructure including cycle storage that should be incorporated into the security plans near the station footprint.
- Links should have a continuous footway with at least 2m of unobstructed width.
- Links should be clearly signposted and make use of wayfinding with convenient formal crossing opportunities.
- Destinations at either end should offer facilities to encourage active travel interchange with public transport such as cycle parking and hire schemes.
- When introducing cycle lanes, space should be carefully balanced to ensure vehicular traffic can still run smoothly.
- Soft landscaping on and adjacent to the active links should be subject to maintenance plans to be agreed prior to their implementation.
- Active travel routes should be designed and laid out in a way that promotes safety and security for users, e.g. through the use of lighting. Please refer to Active Design guidance published by Sport England.

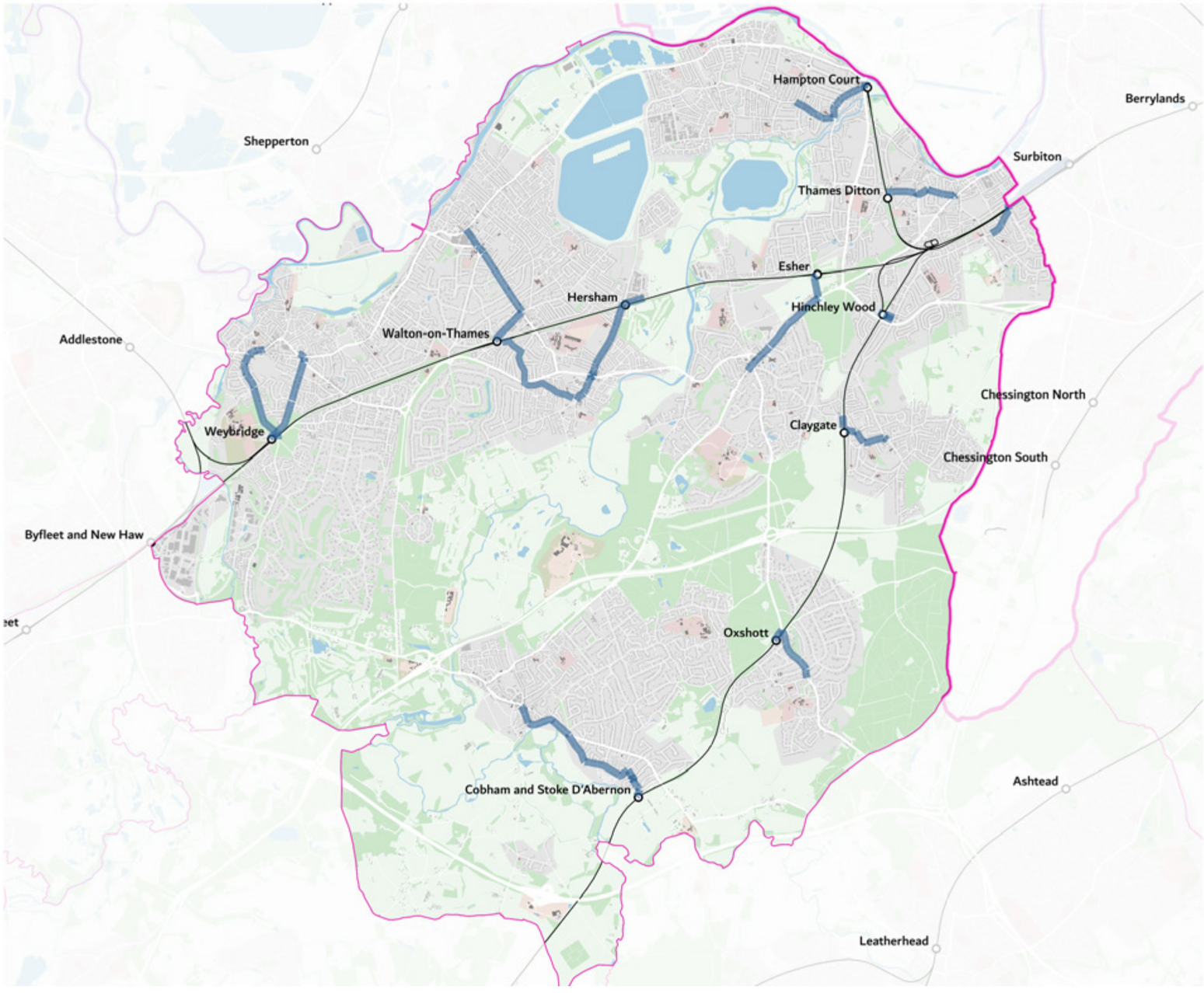


Fig 4.1 Indicative location of station to centre links in the borough that should be Active Travel Links

Fig 4.2 Continuous crossing (Walton-on-Thames)

Fig 4.3 Mobility hub at Teddington train station

4.2 Off-road Routes

4.2.1 Standardising off-road Active Travel Routes

Off-road links create a permeable movement network for active travel and also link settlements to the surrounding landscape

- Off-road route design should be according to LTN 1/20 (paragraphs 8.5.5, 13.7.1, 13.10.1, 15.2.20, 15.4.2, 15.6.1 (table))
- Off-road routes should link public and private streets to improve active travel permeability where streets are not connected.
- Off-road links can be shared paths or have lanes separated by function.
- Off-road routes designed as shared paths should be a minimum 3.0m wide.
- Off-road routes for schools, commuting and other community use should be lit.
- New cycling infrastructure should be designed in line with Healthy Streets for Surrey Design Code.

Fig 4.4 Shared path with lighting

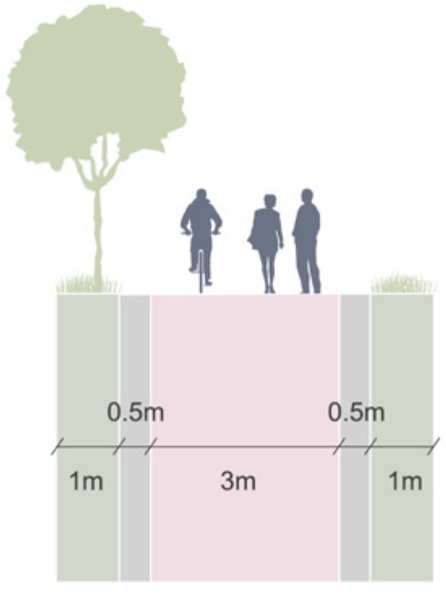


Fig 4.5 Shared path with trees and margins

Fig 4.6 Shared surface link with amenity margin (National Cycle Network Route 6)

Fig 4.7 Segregated lanes (Lea Bridge Road Waltham Forest)

4.3 Site access

4.3.1 On-plot access roads

The layout and materiality of new access roads on plots can make the difference between a car-dominated development and a desirable human-oriented one.

A. Hardstanding used for access road/site access and/or car parking must be made using permeable materials and should be minimised.

- Wherever possible, access roads should serve more than one property rather than running the full depth of the plot or duplicating parallel access roads on neighbouring plots.
- Communal parking could reduce the need for access roads and increase the flexibility of plot layouts. To reduce security issues, communal and public parking areas should aim to achieve Park Mark Award.
- Access and servicing areas for non-residential developments with operational need for deliveries, maintenance and loading should be designed to:
  - maximise the efficient delivery of goods,
  - accommodate the largest vehicle anticipated,
  - provide sufficient bays required for deliveries to all business units,
  - provide storage and welfare facilities for staff,
  - provide for refuse collection; and
  - provide collect-by car spaces in retail developments where relevant.
- Pedestrian and pavement design should follow codes and guidance in section 6 of the Healthy Streets for Surrey Design Code.

Fig 4.8 Permeable hardstanding (The Avenue by Pollard Thomas Edwards © Simon Harvey)

This large area of hardstanding feels like a communal square rather than an access road due to its surface treatment and layout that are not designed purely around vehicle movement.

Fig 4.10 Gable end terminating views (The Avenue by Pollard Thomas Edwards © Simon Harvey)

Views should terminate in interesting features such as a prominent tree or a gable end such as with the access roads above. This example also shows a good use of permeable paving materials and a street at a human scale.

Fig 4.9 Street greening (Abode, Great Kneighton by Proctor & Matthews © Tim Crocker)

An asymmetric shared space that allows for traffic calming and a variety of planting beds, informal integration of visitor parking and a generous amount of small to medium sized street trees.

Fig 4.11 Shared space (Horsted Park, Kent by Proctor & Matthews © Proctor & Matthews Architects)

Linear access road with asymmetric pavements, planting and parking offers visual intricacy.

4.4 Cycle parking

4.4.1 Cycle Parking for all situations

To achieve modal shift, adequate cycle parking must be provided at people's homes, in the public realm and key destinations.

A. The minimum cycling parking quantum set out in Appendix 1 of the Development Management Plan 2015 must be provided.

B. Dedicated cycle storage must be provided and should not be located in habitable rooms, general storage areas, bin stores, circulation areas or on balconies.

C. All cycle parking must allow for natural surveillance, be secure and well lit.

- All new developments should consider the provision of short-stay visitor cycle parking.
- Cycle Parking should be designed according to Secured By Design, LTN 1/20 (Chapter 11) and HSfS Chapter 11.8. Applicants are encouraged to achieve Secured By Design Award.
- A 10% allowance to the cycle parking quantum might be made for non-standard bicycles (e.g. cargo bikes, adapted bicycles).
- In the public realm cycle parking should be situated in convenient and secure locations.
- Cycle parking in residential developments should be accessible without the need to move a car.

Fig 4.12 Readily accessible, covered and sufficient cycle parking provision (The Triangle, Swindon)

Fig 4.13 Short-stay visitor cycle parking on a High Street (Waltham Forest)

Fig 4.14 Communal visitor cycle parking (Accordia Cambridge)

- Applicants should clearly demonstrate where and how cycle parking will be provided in all new development.

- Where vertical cycle parking design is considered, this should be only in addition to other types of cycle parking designs, as vertical cycle parking might not be suitable for heavier electric cycles or bicycles with mudguards.

- Where possible, all cycle parking should offer a real advantage over the nearest parking space; be located away from bin stores and smoking shelter (or other features that may deter use); and when located on the footway, stands should include a tapping rail to warn the visually impaired, and visibility bollards.

- Where communal cycle storage is proposed, this should only be for a small grouping to encourage a sense of security.

- New staff cycle parking could be supported by the provision of showers, storage and changing facilities within the development to encourage the use of cycles as a means of transport.

- A mix of short and long stay cycle parking should be provided in new commercial or mixed-use developments.

- Standard solutions to long and short stay cycle parking such as Sheffield stands should be used as they provide more stability and security.

- Where there is limited space on site, other solutions such as sympathetically designed cycle lockers, might be acceptable.

- Proposals should demonstrate how cycle parking facilities cater for larger cycles, including adapted cycles for disabled people and electric cycles.

Fig 4.15 Secured communal cycle parking in Walthamstow

Fig 4.16 Off-street cycle shelter (© urbanspec)

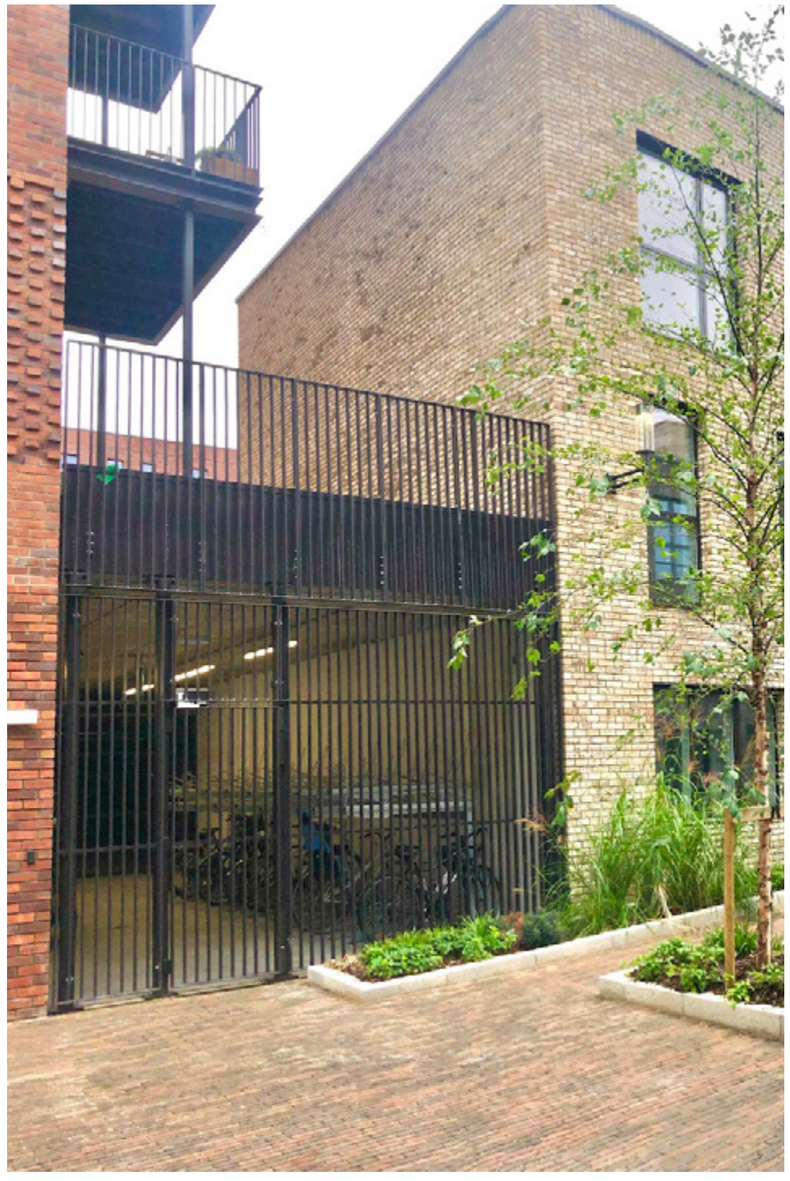


Fig 4.17 Secured communal cycle parking in the Queen Elizabeth Park

4.5 New residential car parking

4.5.1 **Implementing parking guidance**

With the parking quantum requirements set out in the Development Management Plan 2015, the choice of the appropriate parking typology depends on the immediate context and must be carefully planned with place making in mind.

A. Rows of surface parking bays and parking in front of buildings must be relieved by soft landscaping, which should be evergreen, at least after every 3rd bay and its maintenance secured for the life of the development.

- Where allocated parking is provided, this should be close to the front door of residential properties.
- Parking typologies should aim to reduce surface parking provision, e.g. by being underground or in a garage.
- Alternatives to undercroft parking, that create inactive street frontages, should be sought.
- Car club parking bays should be made available in all major developments. These should be clearly identified and should include electric vehicle charging points.

Fig 4.18 Courtyard parking, Poundbury, Dorset (© Andy Cameron)

Fig 4.19 Off-plot perpendicular parking, Butts Green, Kingswood (© spacetopark.org)

Fig 4.20 On-street parking. Goldsmith Street, Norwich. (© Create Streets)

Fig 4.21 On plot parking, Oakshade Road, Oxshott

4.5.2

Backland development

The layout of the access arrangements and car parking can make a big difference to the character and quality of the development.

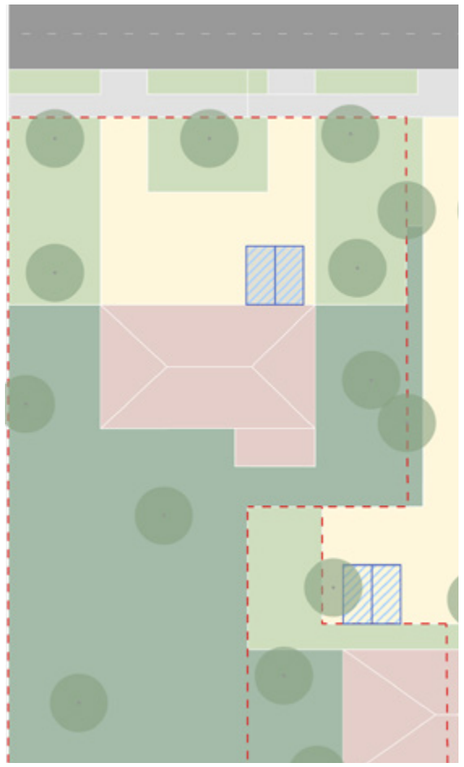


Fig 4.22 On plot car parking to the rear: acceptable mews parking arrangement.

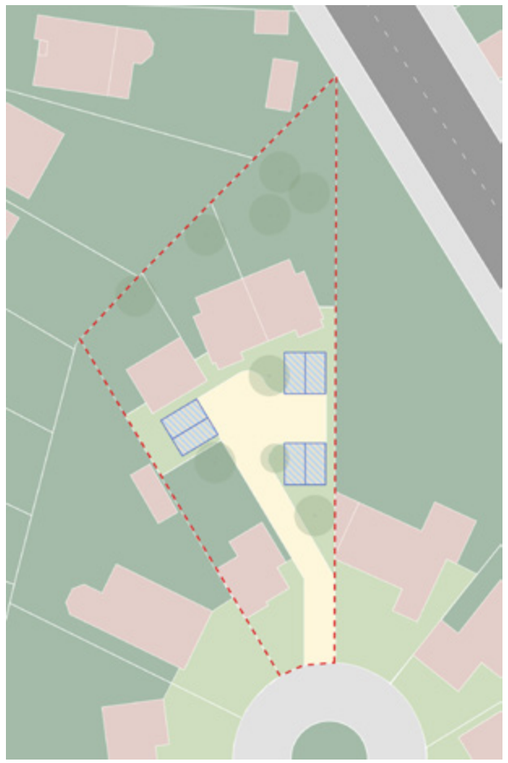


Fig 4.23 Parking spaces to the rear with additional planting

4.5.3

Flatted redevelopment and subdivision

When a plot with a single house is redeveloped and subdivided into flats, the amount of parking requires careful consideration of parking typology.

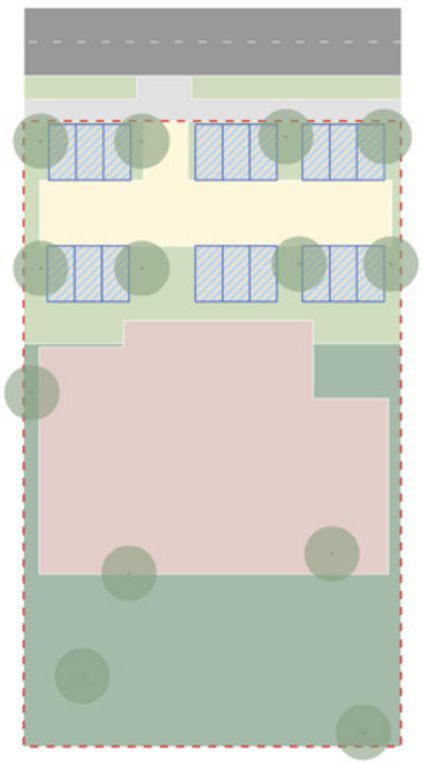


Fig 4.24 Acceptable courtyard parking arrangement with additional planting

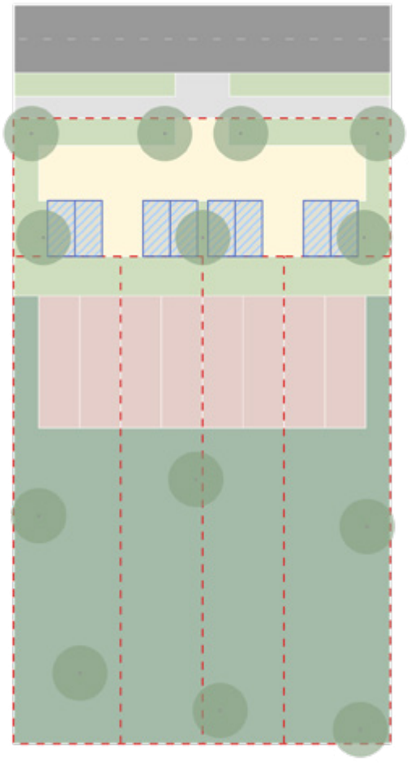


Fig 4.25 On plot car parking situated to the front of properties: acceptable parking court arrangement.

4.6 Parking design and layout

4.6.1 **Parking design and layout**

The way that parking is accommodated and arranged can have a profound effect on road safety, access for emergency services, pedestrians, cyclists, environmental quality, and the character and appearance of a development. There is a balance between providing sufficient parking spaces, promoting good design and public realm, and using land efficiently.

Fig 4.26 Typical forms of car parking in Elmbridge clockwise from top left: Communal Parking Square (Walton-on-Thames), Off-plot parallel and perpendicular parking with greening (Esher), Demarcated on-street plots (Esher) and On-plot perpendicular parking with greening (Walton-on-Thames)

4.6.2 Car parking space dimensions, design and layouts

- The minimum dimension of a car parking space should be not less than 2.5m x 5.0m.

- Disabled parking space should measure 3.6m x 5.0m and should be located no further than 50m from an accessible entrance, be clearly signed and under cover if possible.

- For parallel parking bays the dimensions should be increased to 6.0m in length and these should be designed so that bays cannot be used for echelon parking.

- The minimum distance expected between the end of a car and a solid object should be an additional 0.5m.

- For echelon parking bays the minimum acceptable length should be 4.2m. The width of the bay and the angle of approach vary depending on the design. For a 2.5m wide bay the aisle widths are typically 6.0m at 90 degrees, 4.2m at 60 degrees, and 3.6m at 45 degrees. These width requirements can be reduced if the spaces are made wider.

Fig 4.27 Minimum parking space size

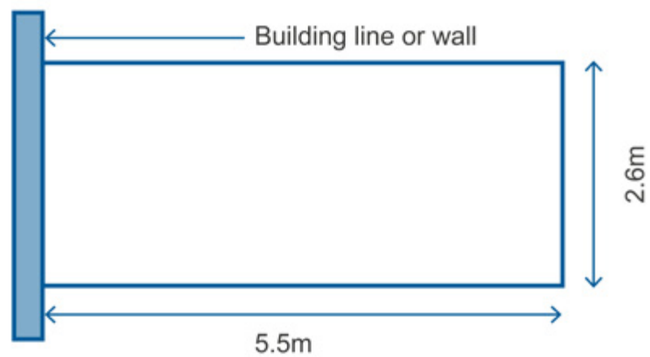


Fig 4.28 Distance from building line / wall

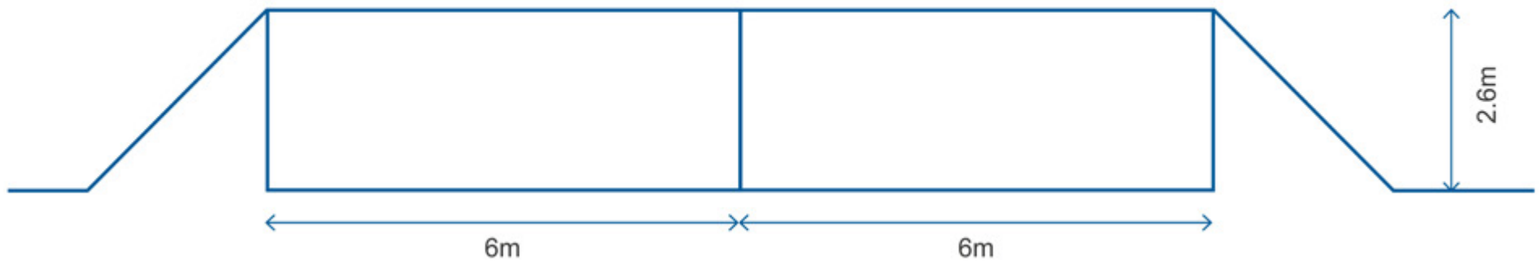


Fig 4.29 Parallel parking layout

4.6.3 Garages / car ports / car barns

- The minimum internal dimensions of a garage should be 6m x 3m.
- Where cycle storage is expected, larger garages with dimensions of 3m x 7m, or 4m x 7m might be appropriate.
- For car ports/ car barns the recommended minimum dimensions are 2.9m x 5.5m.
- Where a garage and driveway are directly adjacent to the highway, they should be set back a minimum distance of 5.5m behind the highway boundary, to avoid causing an obstruction of the footway by parked cars.

4.6.4 Additional requirements for non-residential development

- Parking provision for non-residential development needs to include spaces for staff, visitors and customers, as well as operational and servicing needs.
- Facilities should be convenient, user friendly and well lit, designed to limit the opportunity for crime and to promote natural surveillance, be managed and maintained, and allow for safe access and movement.
- Parking facilities in non-residential/mixed development should aim to achieve the Secured By Design Award.

4.6.5 Parking for motorbikes

- Motorbike parking should be clearly signed and marked, indicating that it is reserved for powered two wheelers only.
- Sites should have dropped kerb access, anchor points, and solid surfacing that does not become soft in hot weather, and offer natural surveillance.
- Sites should be lit and ideally located away from drain gratings, manhole covers, studs, cats' eyes, cobbles and gravel.
- Provision in which to secure motorbikes with anchor points or horizontal bars should be made.

4.6.6 Electric Vehicles (EV)

- Prospective developments should be designed to incorporate sufficient car parking for EV and other ultra-low emission vehicles.
- New developments should provide EV charging points using the most up to date technology and applications should provide details of the type and location of these facilities.
- EV charging points should be conveniently sited where the residents are able to benefit from a "pay as you go" charging system. Detailed guidance on appropriate location of EV charging facilities is set out in Healthy Streets for Surrey Design Code.

Fig 4.30 A mix of demarcated on-street plots and parallel parking within a residential development

Fig 4.31 Parallel parking along residential street

5 Nature

Nature and green spaces should be woven into the fabric of our built environment. This provides benefits in terms of health and well-being, biodiversity, climate and flood mitigation and can connect nature to wider surroundings.

5.1 Urban greening

A. All developments must achieve biodiversity net gain (BNG) in accordance with government (Environment Act) and council requirements. Guidance for how to calculate the biodiversity net gain of a project or development can be found here.

- Applicants should maximise opportunities to incorporate green infrastructure and soft landscaping in their designs.
- All major schemes should meet or exceed an Urban Greening Factor (UGF) of 0.4 for predominantly residential schemes and 0.3 for predominantly commercial developments (see Appendix B for further information about UGF).
- Minor (1-9 new dwellings) and householder development should aim to apply the principles of the UGF and aim to achieve a betterment.
- Applicants should ensure their proposals for green infrastructure and soft landscaping follow the Building with Nature standards and Natural England's Green Infrastructure Framework.
- Urban greening proposals should also be accompanied by appropriate management and maintenance plans.
- Green infrastructure, soft landscaping and planting schemes should be climate resilient and help to mitigate the impacts of climate change; promote diversity, utilising a variety of species to maximise biodiversity and encourage wildlife; and help to mitigate and alleviate flood risk.
- Proposals for new green space should ensure these are multi-functional to provide opportunities for people to be active.
- Natural boundary treatments such as native evergreen hedges should be prioritised over brick or metal railings. Native plants should be used in soft landscaped boundary treatments. Best native hedges include beech, blackthorn, box, dogwood, hawthorn, holly, hornbeam, wayfaring tree or yew.
- Boundary designs should create and/or connect to green and wildlife corridors where feasible.
- Where sites are close to existing green spaces, routes or waterways, the landscape design should respond positively to these by, for example, providing landscape corridors, maintaining continuity of routes or providing direct access to landscape assets.
- Naturally planted areas in front, rear and communal gardens should be maximised. Larger areas might benefit from rewilding.

Permeable paving surfaces

Living walls

Sustainable Urban Drainage

Roof gardens

Rainwater gardens

Tree planting

Fig 5.1 Typical examples of urban greening

5.2 Trees and street greening

5.2.1 Suitable planting in public spaces and streets

Elmbridge is characterised by strong integration of nature with the built environment. Trees, planting and soft landscaping in suburban, urban and mixed use areas needs to be enhanced and protected.

A. All new streets must be tree lined.

- Existing trees should be retained as a priority, and new trees planted to provide urban greening.
- The choice of planting should consider their climate change resilience, for example drought or extreme temperatures.
- The functionality and soil type should inform which tree species are chosen.
- Proposals for new streets should follow all urban greening code and guidance set out in section 5.1.


Beech


Field maple


Downy Birch


Sycamore


Common Juniper


Oak (Sessile Oak)


Scots Pine


Bird Cherry


Broad Leaved Lime

Fig 5.2 Typical tree species found across Elmbridge

5.3 Flood risk and Sustainable Drainage Systems

5.3.1 Sustainable Drainage Systems (SuDS) help to mitigate the flood risk and the impacts of climate change effects. They can reduce the total amount and speed of water that gets into the sewers. SuDS can include the storage of water for later use, the use of infiltration techniques, such as rainwater gardens (see Fig 5.3), planters, green roofs and porous surfaces. Rain can also be stored in ponds, swales and in other, more engineered features such as blue roofs and tanks. More natural SuDS can provide multiple benefits such as water quality and contribute towards amenity through green infrastructure provision.

A. Development must minimise the risk from all sources of flooding and not increase the risk of flooding elsewhere. Any residual risks must be safely managed.

B. All new development must contain SuDS.

C. Development within Flood Zones 2 and 3 must be designed to control surface water runoff to as near to its source as possible and at greenfield rates.

- SuDS proposals should follow guidance in Surrey County Council's Sustainable Drainage System Design Guidance.
- Development proposals need to demonstrate that SuDS will adequately manage land drainage and will not result in an increase in surface water run-off.
- The design and implementation of SuDS should take account of a site's constraints, including sub-surface infrastructure, space, building layout, orientation, land uptake and soil condition – such as land contamination.
- SuDS should be designed to be multi-functional and incorporate sustainable drainage into landscaping and public realm, including maximising opportunities to establish surface water ponding areas, urban watercourse buffer areas and multi-use flood storage areas in locations of high surface water flood risk and critical drainage areas to improve flood resilience, amenity and biodiversity. Such design could include built-in rainwater harvesting to supply planted areas in public spaces.
- SuDS design should consider and address the future maintenance requirements and impacts of climate change.

Fig 5.3 Car parking and SuDS integrated into landscape verge in secondary street (© GreenBlue Urban)

5.4 Enhancing the riverside

5.4.1 Riverside environments

The Rivers Thames, Wey, Rythe, Mole and Ember are cherished natural assets of the borough. Elmbridge developed around its waterways and associated crossing points. Current riverside uses include public houses, boathouses, industrial buildings, residential estates and modern wharf side developments.

- New development should take account of the important landscape framework defined by the Thames, which supports leisure activities including walking, cycling, boating and fishing.

- Proposals should enhance the natural setting and encourage biodiversity. An ecological appraisal should be undertaken by a suitably qualified consultant. Green and brown roofs, rain gardens and wet meadows should be considered.

- New developments are encouraged to adopt the recommendations of the Thames Landscape Strategy that covers part of Elmbridge (the areas along the river between Weybridge and Hampton Court Palace).

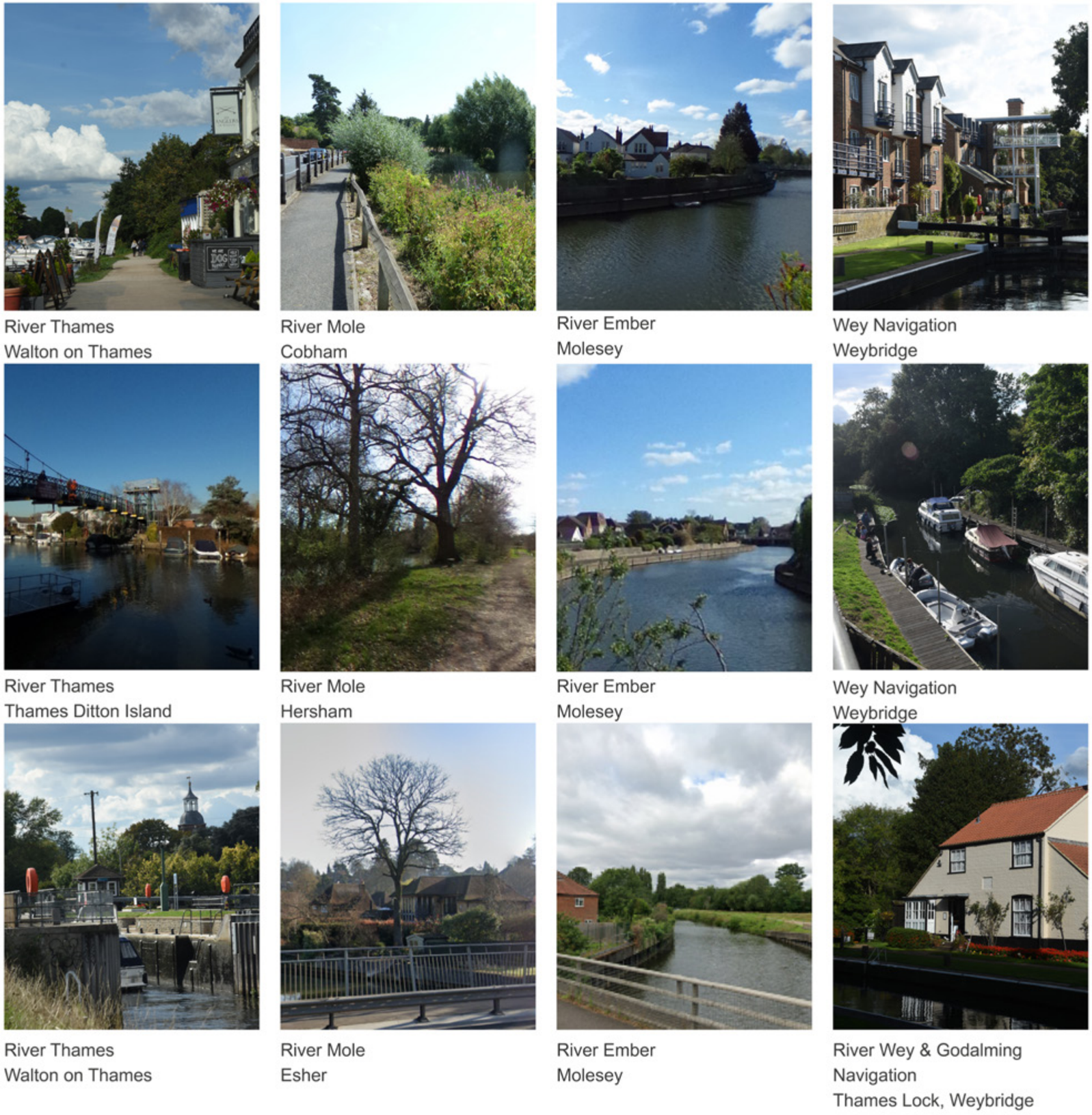


Fig 5.4 Typical riverside conditions throughout Elmbridge

5.4.2 Riverside development

A. Soft landscaping, such as trees, is important to the setting of the rivers and must be enhanced. New development must contribute to the improvement of the river's edge through additional tree planting and high-quality landscaping.

B. The river edge is generally understated in character and has not undergone significant development. New development must retain the natural character of the water's edge.

- Planting schemes in a river setting should take account of whether the river is a Site of Nature Conservation Importance (SNCI) and ensure that any new planting does not have an adverse impact on the nature conservation importance of the river.
- New developments should enhance the natural setting of Elmbridge's waterways.
- New developments should address the river by providing active frontages.
- Avoid negative impact of development on riverside ecosystems for example by using low level lighting.
- Pedestrian and cycle connections to the riverside should be made as part of new developments to maximise the enjoyment of these amenities.

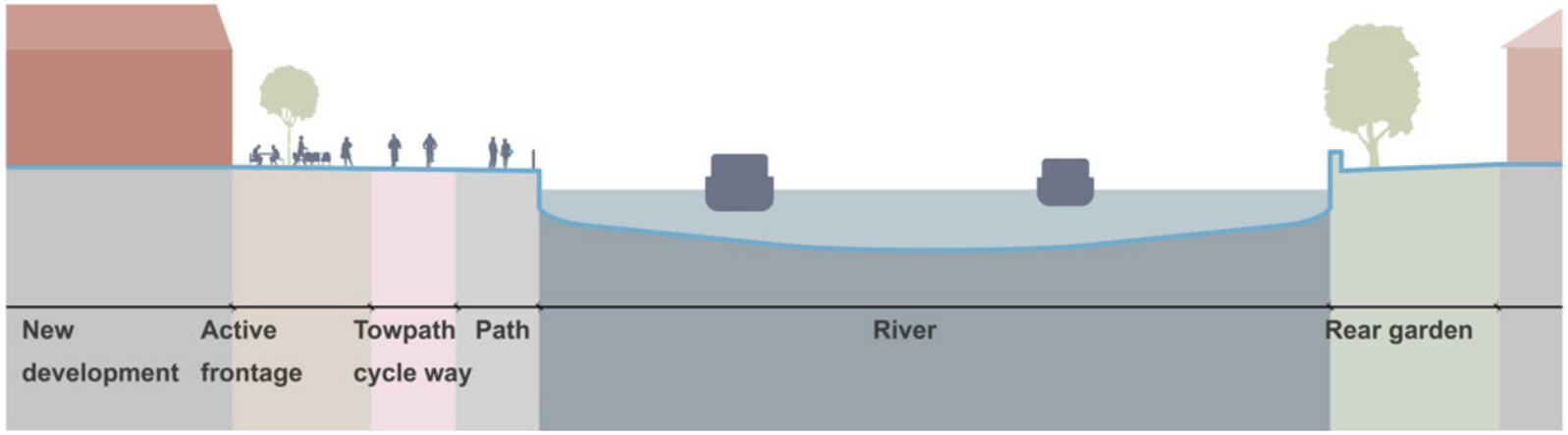


Fig 5.5 A site adjacent to the riverside

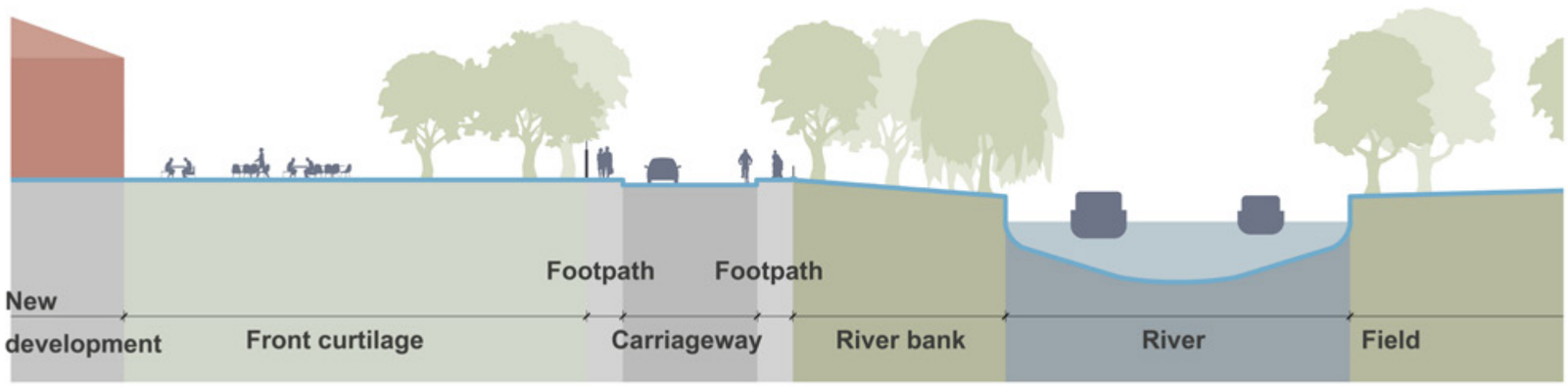


Fig 5.6 A site set back from the riverside

Fig 5.7 Riverside developments are encouraged to have green and blue roofs so they sit within the natural landscape seamlessly

Fig 5.8 Connected tree pits and rain gardens help mitigate heavy rainfall

Fig 5.9 Riverbank with natural edge creates an inviting scene for walkers and cyclists

Fig 5.10 Wet meadows are beneficial to increase the range of biodiversity, while mitigating rainfall

6 Built form

The built form of an area is the three-dimensional pattern or arrangement of development blocks, streets, buildings and open spaces that make up any built-up area or development.

6.1 Plot coverage

6.1.1 Well-proportioned layouts

New developments should create well-proportioned layouts and plot ratios that balance the need for housing, private amenity, urban greening and parking. Plot ratios represent the proportion of a site that is occupied by a building's footprint. The plot ratio of a development is calculated by dividing the building's footprint by the total area of a site.

A. Applicants must state the proposed Plot Ratio, as well as the Plot Ratio of all neighbouring plots (plots that share the boundary with the application site).

- Prospective developments, including householder extensions, should conform to the following range of Plot Ratios, where possible:

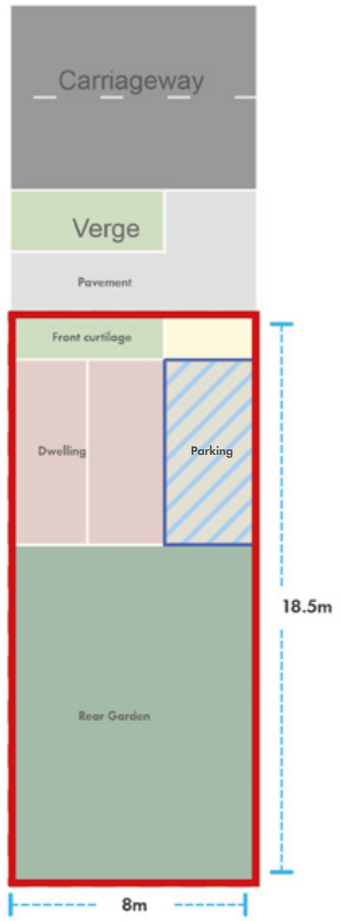
Fig 6.2 Indicative range of suitable plot ratios for residential area types

INDICATIVE RANGE		
Residential area type	**Plot ratio**	
	Min	Max
Mixed-use	0.5	0.7
Urban	0.2	0.5
Suburban	0.2	0.3
Gated	0.1	0.2
Riverside	0.1	0.2

Fig 6.1 Example of a well-proportioned residential development on a typical plot

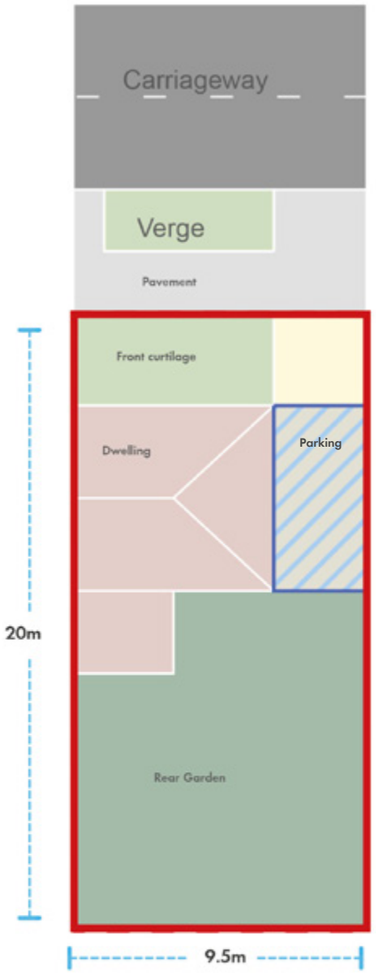
Examples of well-proportioned layouts

Fig 6.3 Example of a compliant layout for a typical urban rectilinear plot



Plot area	148 sqm / 100%
Building footprint	30 sqm / 20%
Plot Ratio	0.2

Fig 6.4 Example of a compliant layout for a typical suburban rectilinear plot



Plot area	190 sqm / 100%
Building footprint	48 sqm / 20%
Plot Ratio	0.25

6.2 Density

6.2.1 Floor area ratio (FAR)

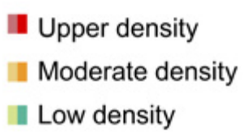
FAR is a metric used to calculate the density of developments regardless of building type and use. FAR is expressed as the ratio of a building's total floor area to the size of the plot upon which it is built.

A. Applicants must specify the proposed FAR for the proposed development and provide the existing FAR of all neighbouring plots where possible.

- Proposed developments should optimise the proportion of new floorspace in relation to the site area (FAR), taking into account relevant factors such as plot layout, building types, greening, amenity and parking.

SETTING	INDICATIVE RANGE
	Floor area ratio
Low density	0.0 - 0.4
Moderate density	0.4 - 1.0
Upper density	>1.0

Fig 6.5 Indicative density range



Low density
Typically found in peripheral, purely residential (and often gated), neighbourhoods such as Claygate, east of Cobham and south of Esher.

Relevant area types: gated, suburban and riverside

Moderate density
Typically found in mixed-use and residential areas within or near local centres such as East Molesley, Hersham and Cobham.

Relevant area types: urban, riverside and suburban

Upper density
Typically found within centres such as Walton on Thames, Esher and Weybridge.

Relevant area types: mixed-use, urban

Fig 6.6 Examples of different levels of density across the borough

6.3 Building heights

6.3.1 Relating to existing heights

The height of new developments must relate to the height of surrounding existing buildings and not detract from the local character.

A. Applicants must assess and evidence the height of existing buildings along their street where the site is located (minimum 25m in both directions) as well as the height of the local context (prevailing height). Prevailing height is defined as height of buildings within a 50m radius measured from the centre of the site, or the heights of all buildings on plots which share a boundary with the site, whichever is greater. The resulting prevailing height is calculated as the average of those heights.

B. Where the height of existing buildings along the street is consistent or of minimal variation, new developments must not exceed the existing building height level of the adjacent plots along the street (Fig 6.8).

C. Where there are significant variations in height along the street, applicants must assess and evidence whether their site is situated centrally within an area type or is in a transitional zone where two distinct area types meet (as set out on the map of area types).

a. If the site is central, new development must work within the existing range of building heights along the street taking into account the buildings on the adjacent plots (Fig 6.9).

b. If the site is in a transitional zone (threshold), new development must manage the transition in scale and context depending on which area it relates to (Fig 6.10).

- The minimum floor to ceiling height should be 2.5m for residential and 3m for non-residential buildings.

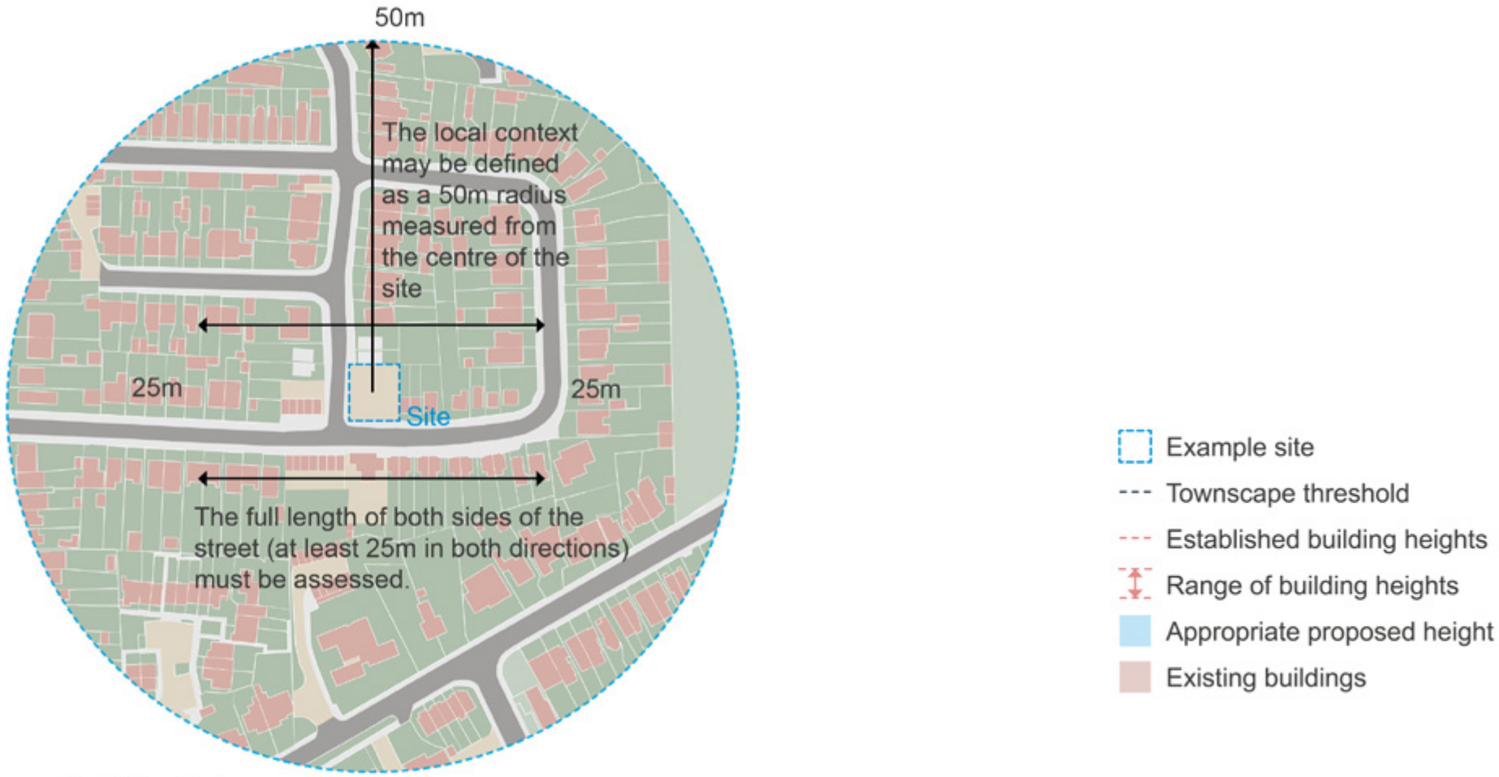


Fig 6.7 A guide to assessing heights

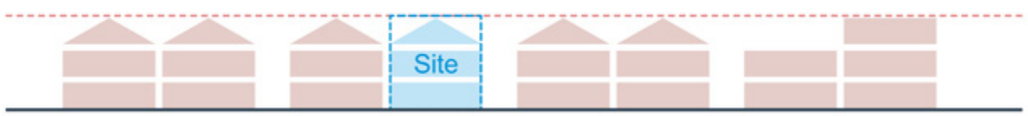


Fig 6.8 Typical suburban street - the site is centrally located within an area type where existing building heights are consistent with little or no variation.

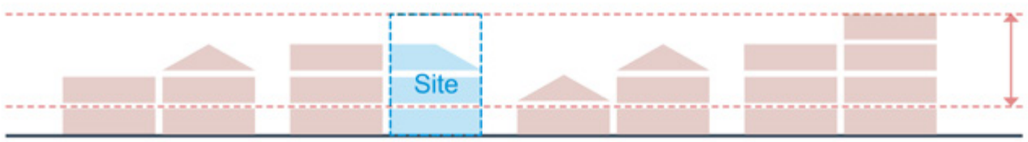


Fig 6.9 Typical mixed-use street- The site is centrally located within an area type where there are significant variations in building heights. Although there is a variation in heights along the street, the new development would have to manage the significant difference in height of the adjoining buildings and therefore should not exceed the average height of the two.

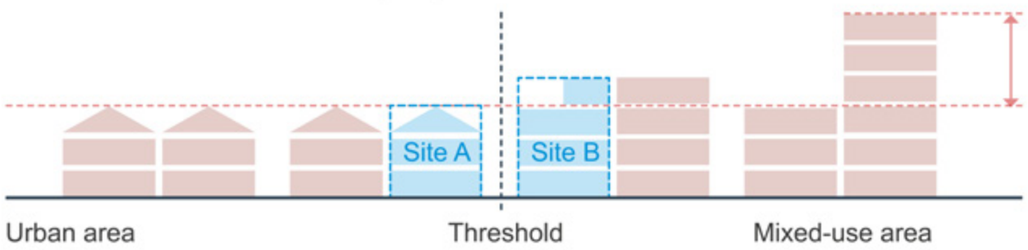


Fig 6.10 Sites A and B are located at the threshold between two area types varying from low to mid-rise. Prospective developments on each site must manage this transition in height in different ways. Prospective heights on Site A must be equal or subordinate to the established building height. Prospective heights on Site B must avoid stark shifts in building heights by stepping down towards the threshold.

6.3.2 Taller buildings

Where proposals for new development exceed the prevailing height of surrounding buildings, ‘taller building(s)’, the following requirements will apply:

A. The new development must be of exemplary design quality. This includes considerations of height, massing, proportions, materials, detailing, site layout and its relationship with the surrounding area that sets it apart in terms of distinctiveness which has to positively contribute towards the context and character of the area; or

B. The new development must offer significant public benefit(s). For example, a development that meets or exceeds a full policy compliant on-site affordable housing provision, and clearly demonstrates why this would not be achievable as part of development restricted to the acceptable height threshold; or

C. The new development must demonstrate exceptional sustainability benefits including the building design, construction, operation and connections to the surrounding area; and

D. A clear townscape rationale must be provided for the specific siting of taller buildings, marking key locations or assisting with wayfinding to and from nodes, and responding to public transport accessibility and activity; and

E. The new development must be designed to avoid harmful impacts on daylight, sunlight, wind conditions, overheating and micro-climate, and include the provision of appropriate mitigation where required; and

F. A significant contribution to the public realm is made in the form of new, high-quality open space; and

G. The setting of the new development is not dominated by car parking as a result of the increased height and massing, and a balanced and comprehensive approach to servicing has been employed avoiding impact on parking in local streets and spaces.

- For larger developments of 50 homes and more, height variation using a gradient across the site might be considered appropriate.

Fig 6.11 Wellington House in Wimbledon by MATT architecture increases height in a compact manner, making good use of a corner site in a mixed-use area. (Wellington House by MATT Architecture © Will Pryce)

Fig 6.12 Agar Grove in Camden by Mae provides 4-storey stacked maisonettes and town houses in a contemporary terraced style within an urban area. (Agar Grove by Mae © Jim Stephenson)

Fig 6.13 St Helen’s Gardens (a four-storey Passivhaus in the centre of the picture) in Westminster reinterprets a traditional villa typology to accommodate 8 new flats within a Conservation Area. (St Helen's Gardens by Maccreanor Lavington © Maccreanor Lavington)

6.4 Townscape legibility

6.4.1 Legibility

New developments should contribute positively to the local townscape by improving legibility and wayfinding. This section should be read in conjunction with 6.3 Building heights.

A. Proposals must avoid creating new developments with a monotonous, uninterrupted linear frontages. Blank façades must be avoided on elevations facing streets.

Fig 6.14 Suburban: infill mid-street

Building line: An infill building in the middle of a suburban street should pay particular attention to the predominant building line, which is a highly defined feature of this type of site.

Rhythm: A consistent rhythm and spacing contributes to the character of the area and should be maintained.

Plot layout: A consistent plot width is a characteristic of this site type.

Scale and height: The development should be in keeping with the predominant scale of the adjacent buildings. In some cases, it may be appropriate for the infill to be subordinate to the existing forms. The proposal should not exceed the existing height in the street.

Fig 6.15 Suburban: corner

Street hierarchy: Where there is a primary route, the prevailing characteristics of this road should inform proposed development geometry.

Similarly, it may be at a point where the character changes and is therefore an opportunity to celebrate the corner position through its massing and roofline.

Active frontage: The corner building should avoid blank, inactive frontage addressing either street as both main elevations form part of the streetscape.

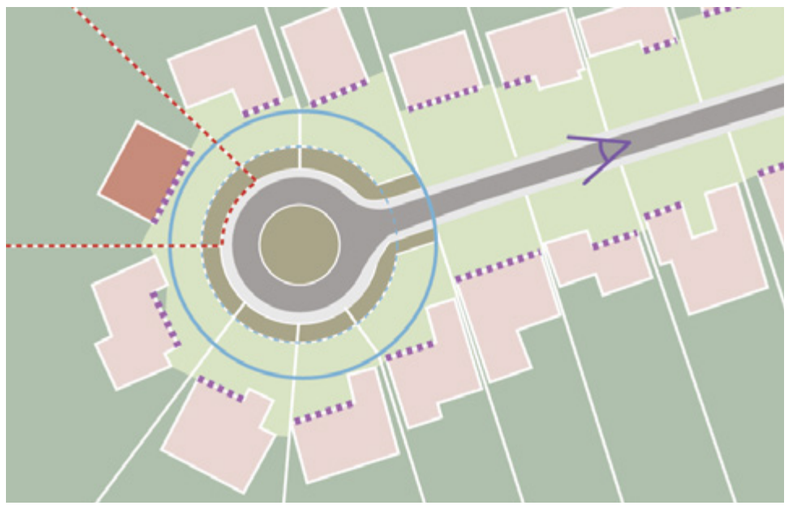


Fig 6.16 Suburban: set piece

Building line: Proposals within blocks that have a planned, repetitive layout organised around formal set-pieces such as crescents or small circuses at the end of cul-de-sacs should respect the building line established by the existing buildings which are part of the set-piece. Development should maintain the same set back from the public realm and be oriented in a way which is appropriate to the setting. There should also be sufficient provision of green open space so as to maintain the legibility of the set-piece.

Scale: The scale and height of the proposal should not exceed the maximum height in the street. It may be appropriate for some of the proposal to be subordinate to the main form.

Proposed development
Existing building
Building line
Prominent building
Active frontage
Activity zone
Key view

Fig 6.17 Mixed-use: infill

Building line: The proposal should reinforce the established building line. In the example, the adjacent prominent building line takes precedence. The existing green buffer is extended in the proposal to reinforce the identity of the prominent site.

Character: Proposals should be in keeping with the character of the centre whilst avoiding pastiche design. Development should use appropriate materiality of good quality.

Prominent location: Address significance of terminating viewpoint.

Shopfront: See Design Code 7.2

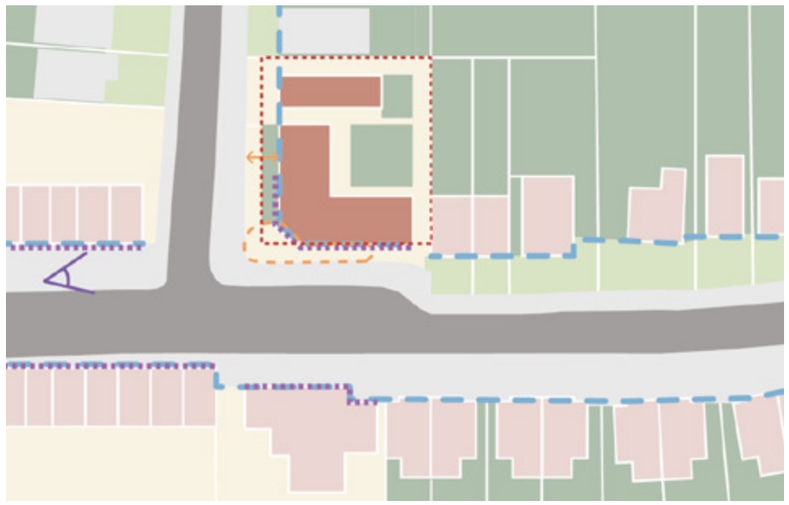


Fig 6.18 Mixed-use: corner

Use: Mixed use centre corner sites address the interface between a town centre and another land use, such as a residential area. It is important to note the distinctive characters of each area.

Active frontage: The proposal should have positive active frontage facing both land uses, to avoid blank frontage addressing either character area. The frontage could extend town centre uses and include external amenity such as cafe spill out space, whilst maintaining sufficient defensible space.

Street hierarchy: The scale should reflect that of the primary street.

Fig 6.19 Mixed-use: prominent location

Design quality: Mixed-use prominent sites are visible from multiple directions, often located at the focal point of street views, at corners, where there are changes in street alignment, or next to open spaces with long views. Buildings could be assessed for their ability to improve townscape legibility and contribute to intuitive wayfinding through their design. Buildings in these locations should be prominent but not necessarily taller than their surroundings.

Views: The proposed design should be assessed through verified view testing.

Active frontage: Blank façades should be avoided at these locations.

6.5 Roofscape

Fig 6.20 Gabled roofs typical of Victorian and Edwardian terraces

Fig 6.21 Hip-Gabled roof typical of suburban semi-detached housing

Fig 6.22 Dormers

Fig 6.23 Flat roof set behind parapet

6.5.1 Variation in Roofscapes

Roofs help to frame the streets and spaces and should positively contribute towards the regular rhythm of the street, maintaining even proportions whilst creating interest and landmark features.

A. Along unbroken rows of terraces, roofscape must be consistent.

B. New dormers must reflect and respond positively to proportions and positions of existing facade and its openings respectively.

- The style and materials of proposed roofs should reflect or respond positively to that of surrounding buildings.
- Roof extensions and dormers should help maintain the style and appearance of the existing building and should avoid dominating the roofscape from a wider view.
- The fenestration details (windows/doors) should be in vertical and horizontal rhythm, except where there is a significant change in levels across a site.
- The materials used in any exterior work should be of a similar appearance to those used in the construction of the exterior of the existing building.
- New roof extensions including dormers should reflect and respond positively to proportions and positions of existing facade and its openings.
- Hipped roof or gable ended dormers are often preferable to those with flat roofs. Their sides should be covered in materials which match or complement the main roof. In some cases, a roof light may form a more suitable alternative to a dormer.

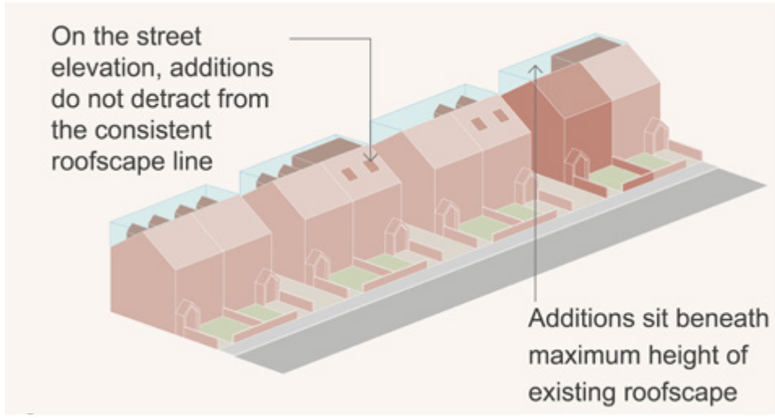


Fig 6.24 Urban / suburban

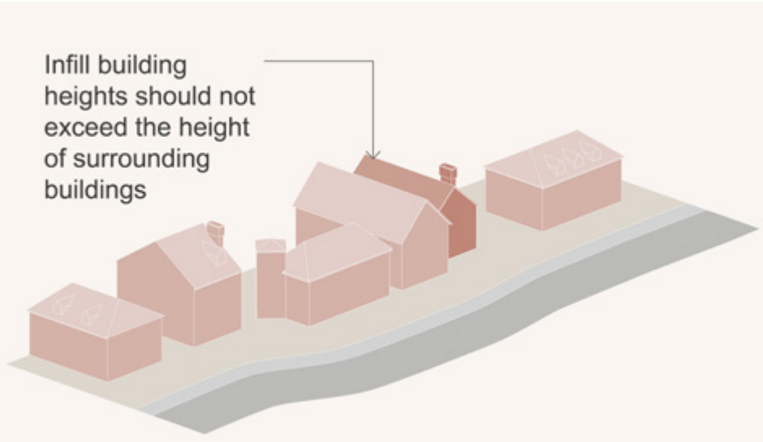


Fig 6.25 Suburban - edge of settlement

6.6 Extensions to existing buildings

6.6.1 Single or two-storey side extensions

- Single or two-storey side extensions should either be fully integrated with the building or clearly be shown to be extensions.

  - The fully integrated extension is usually only successful where it does not affect symmetry. This is possible on a detached or occasionally on the end of a terrace property.

  - On a symmetrical property or a semi-detached house, an extension which is subordinate to the existing building is advisable. In such cases it is preferable to set it back from the front wall of the house, which helps to reflect the secondary role of the extension and can also stop any awkward bonding of brickwork appearing on the front elevation.

6.6.2 Side extensions

- A minimum of 1 metre should be maintained between any extension above ground floor level and the boundary. Where space allows and to accord with the rhythm of the streetscape, more than 1 metre should be left at the boundary.

- Single storey extensions can result in problems caused by the encroachment of foundations or guttering if the extension is too close to the boundary. A minimum of 300 mm between the side wall of a single storey extension and the property boundary should therefore be aimed for wherever possible.

6.6.3 Roof design

- The roof of an extension should be similar to that of the existing house, in scale, design and the angle of the pitch. In particular, properties with a pitched roof should not have flat roofed extensions. This may not apply to single storey rear additions to a two or more storey dwelling.

- The eaves level of a two-storey extension should line through from the host building and should not be higher than on the existing property.

6.6.4 Materials

- Materials and detailing of the extension should match those of the existing building in design, colour and texture.

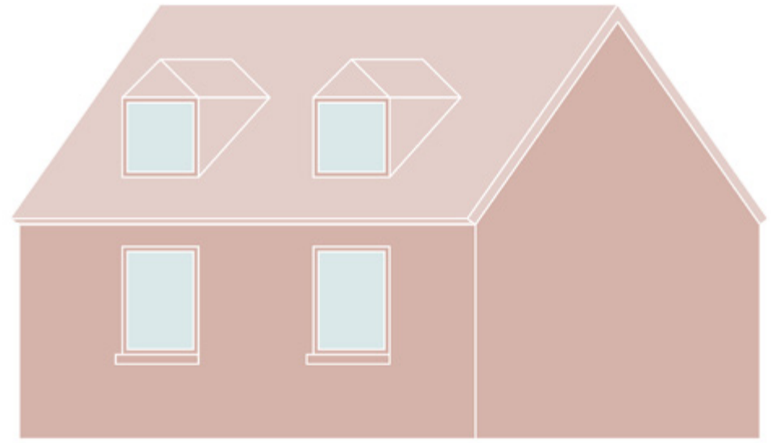


Fig 6.26 Satisfactory gable-ended dormer giving good visual unity by aligning with existing windows

Fig 6.27 Satisfactory extension that harmonises with the original appearance and proportions of the house

6.6.5 Daylight and sunlight (residential extensions)

- For a single storey extension that does not project more than 3 metres, the effect on natural light is considered to be minimal. Beyond that distance the extension should be less than an angle of 45° from the edge of the nearest adjoining neighbour's habitable room window (Fig 6.29).

- Similarly, if up to 3 metres deep first floor front/rear extension is proposed and the neighbouring dwelling has a single storey corresponding front/rear extension, the line of 45° is not applied.

- The '45° angle' test (Fig 6.29) applies to two storey extensions which are closer than 15 metres measured along that sight line from the neighbour's window, or 8 metres in the case of single storey extensions unless the latter do not project more than 3 metres. The loss of light to an adjoining dwelling can be more noticeable where an extension is to be directly to the south, warranting sensitivity in siting and design. Two storey rear extensions must be very carefully sited and designed. Their acceptability will depend on the specific characteristics of the site and their relationship to adjoining houses. The test should also apply to side facing windows of adjacent houses which serve habitable rooms, particularly if these windows are the only natural light source to the room.

- BRE '25 degree' rule of thumb (Fig 6.28) can be used to assess impact of proposal on daylight and sunlight received by neighbouring habitable room windows that face the new development/extension. This should be taken from the centre of the lowest window. If there is a breach, a daylight and sunlight assessment might be required to demonstrate adequate light is reaching this habitable room.

6.6.6 Privacy (residential properties)

- An extension should not result in any significant loss of privacy to adjoining houses and gardens. To prevent overlooking, windows should either be high level, obscurely glazed or omitted from any wall directly facing a neighbouring house or garden, particularly in that part that is close to the neighbouring house and having the most activity, for example patios.

- The use of a flat roof of an extension as a balcony or the creation of any other raised terrace will not usually be acceptable unless well screened or within substantial plots

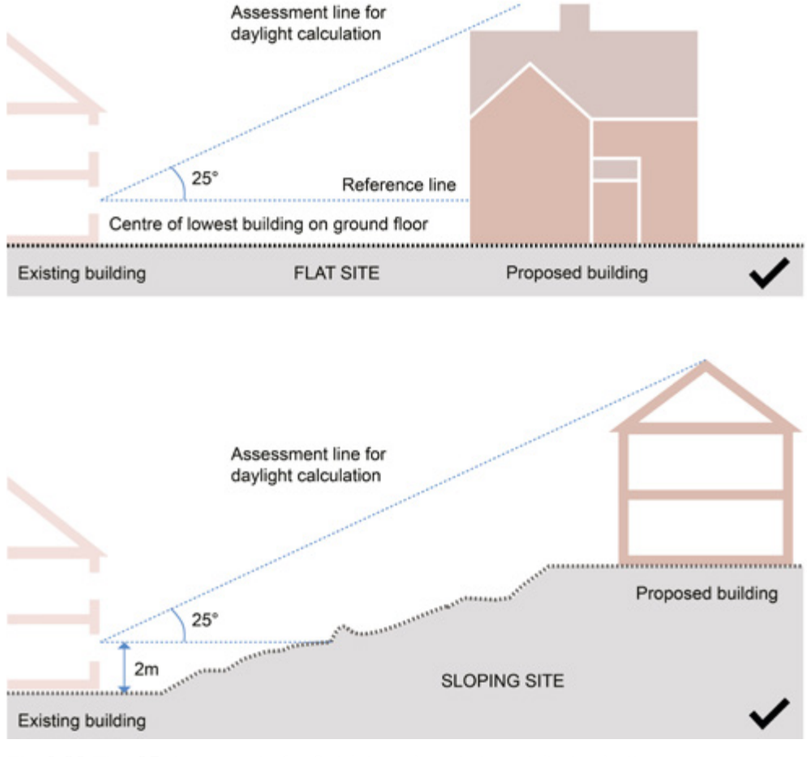


Fig 6.28 The 25 degree rule for flat (above) and sloped (below) sites

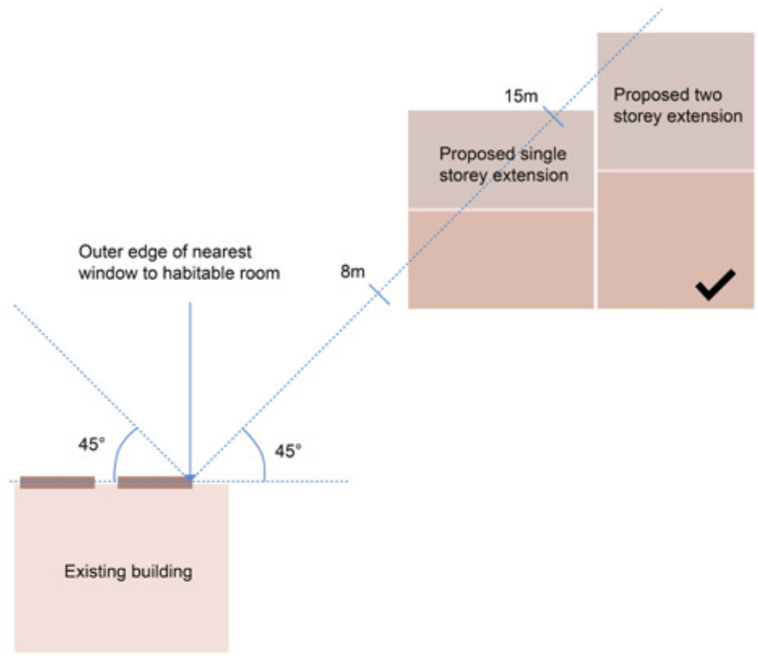


Fig 6.29 The 45 degree rule illustrated in plan (above) with inappropriate / appropriate extensions.

6.7 Building lines

6.7.1 Primary and secondary lines

The primary building line is defined by the external wall of the main building in relation to the street. It sets the character of the street. The secondary building line relates to single storey projections such as garages and porches that have a more subtle effect on the character of a street. New developments must create positive relationships to neighbouring plots by respecting existing primary building lines.

A. New developments must identify and maintain the existing front building line where it is established and consistent.

B. Infill extensions must be subordinate to the primary building line.

- Where there is no well-established front building line, for example where a street is characterised by setbacks and frequent variations, new developments should use neighbouring frontages to establish an appropriate zone within which to set an appropriate building line (Fig 6.32).

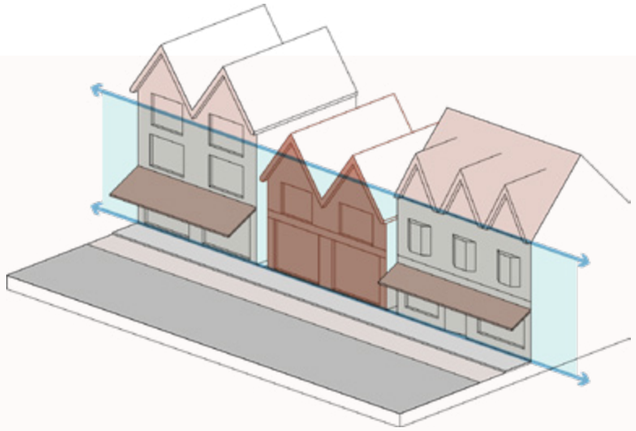


Fig 6.30 Mixed-use area - a consistent building line must be maintained

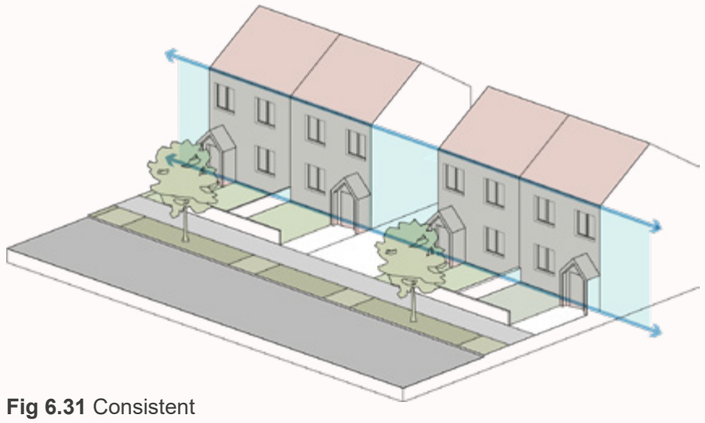


Fig 6.31 Consistent suburban - building lines seldom vary and breaks or setbacks can be useful in introducing variety

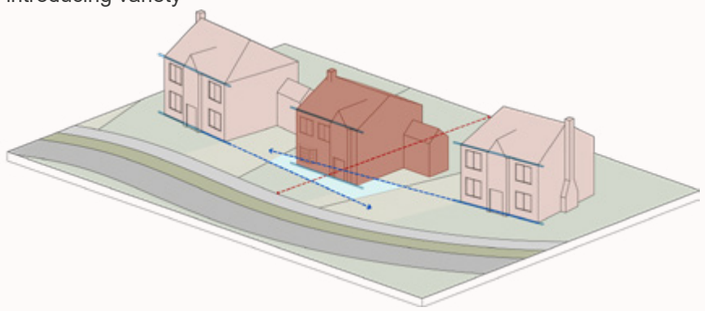


Fig 6.32 Inconsistent suburban - new developments must use neighbouring frontages to establish an appropriate zone within which to set an appropriate building line.

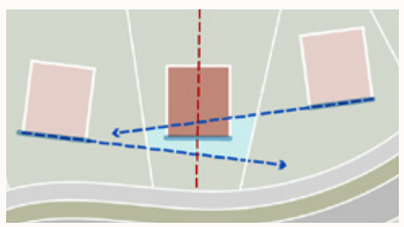


Fig 6.33 Urban Building Line - in Urban areas, the building line is generally consistent. This creates a legible streetscape. Facade design can add character, interest and a sense of rhythm. Set-backs in the building line, or generous pavement widths will need to be carefully justified to accommodate spill out activities, such as a cafe with al fresco dining.

Fig 6.34 Consistent suburban residential building line - in suburban areas, the set back is generally greater to allow for private defensible space in front of the property. This acts as the transition zone between private and public space, and influence the character of the street greatly.

Fig 6.35 Inconsistent building line - in a scenario where the form of buildings is more organic, a new building line must be determined by its context.

6.8 Street rhythm

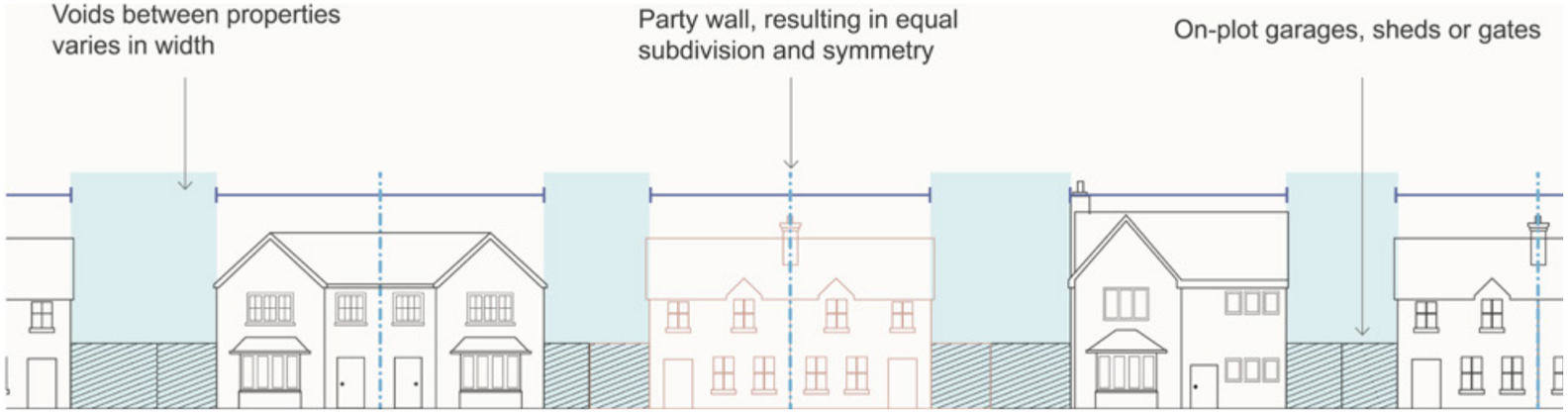


Fig 6.36 Semi-detached street scape

6.8.1 Rhythm

Rhythm is the recurrence of elements, resulting in an organised pattern of built form along a street. These include voids between buildings and the sub-division of the elevation.

- Where voids are consistent in width, these should be continued.
- Where a garage, fence or shed is present within voids on neighbouring properties, the infill development can mirror this arrangement in order to continue this secondary rhythm along the street.
- Where voids are irregular, the separation distances of the infill development should reflect the proportions of the adjacent dwellings.
- New developments should follow the vertical and horizontal rhythm established by the existing and distinctive elements on a street.

Fig 6.37 Examples of different existing rhythms found across Elmbridge and (below) the three key factors affecting rhythm

Voids
The void is the space between two neighbouring properties. In some instances voids may include elements such as garages, sheds, gates to back gardens or alleyways. In more suburban and low-density neighbourhoods, the voids between buildings may be more inconsistent, creating an irregularity in the street scape.

Composition
The composition of the facade can be understood as the sub-division of the elevation, which is strengthened by the buildings symmetry. Symmetry is when two halves of a facade correspond to each other, in size, shape and placement of forms. For example, the vertical axis through the centre of a pair of semi-detached homes acts as a mirror line, creating a sense of stability in the building. Where symmetry is not possible, a sense of rhythm in the sub-division of the facade should be present.

Width
The width of the building refers to the length of the building face, as measured along the foundation facing the front of the building line. Consistent building width strengthens the rhythm of the street and contributes to creating regular voids.

6.8.2 Urban grain

The way in which a street block is divided into plots has an important influence on street rhythm. Some of Elmbridge's neighbourhoods are fine-grained with regular and frequent plot divisions.

A. Applicants must assess the urban grain (within 50m radius around the site, or of build form on plots which share a boundary with the site, whichever is greater), with particular regard to existing local or strategic views and proposals must respond appropriately.

B. Where plots are amalgamated, new development must express the character and frequency of the historic grain, i.e., the massing of larger build form schemes should reflect the urban grain of existing/surrounding buildings. For example, when two plots are amalgamated the proposed development should not be articulated as one single block, but two.

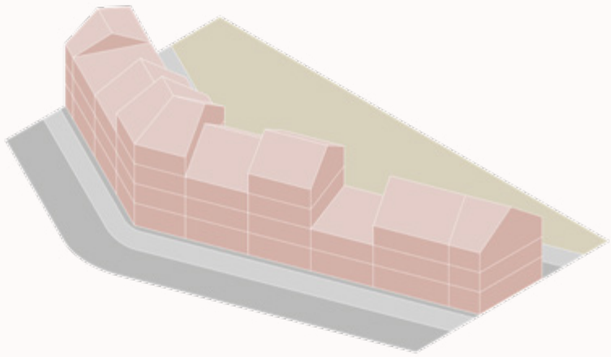


Fig 6.38 Compact developments of varying building footprints, heights and sizes as well as plot sizes.

Compact and fine grain
Compact and fine grain are typically found in the most historic parts of the borough such as Bridge Street, Walton-on-Thames and Hampton Court Parade, East Molesey.

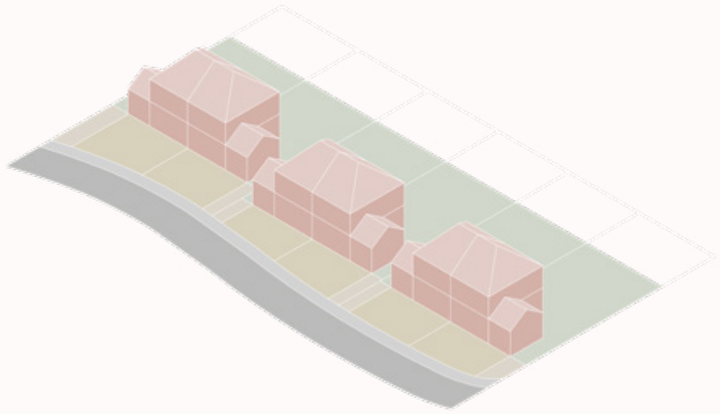
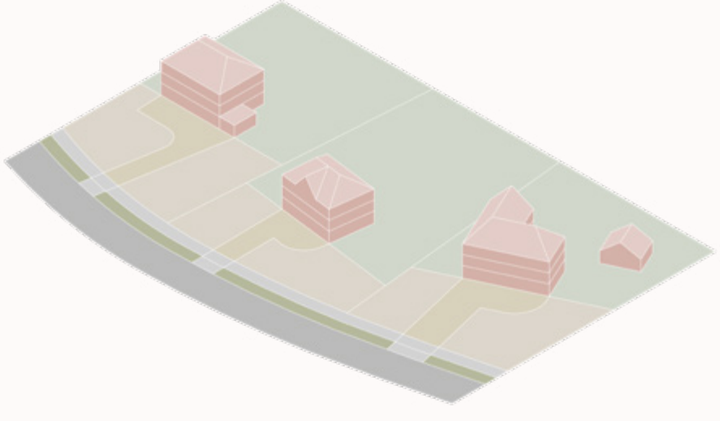


Fig 6.39 Consistent developments of repeated consistent building types (in terms of footprints, heights and sizes) and similar plot depths.

Regular and repetitive
A regular and repetitive grain of development is typically found in urban and suburban areas such as Braycourt Avenue, Walton-on-Thames and Albany Road, Hersham.



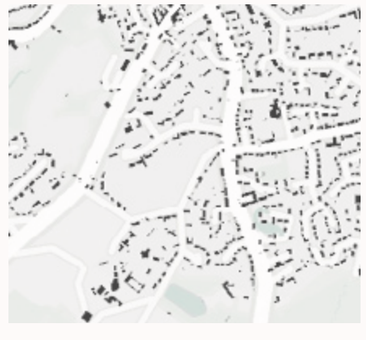


Fig 6.40 Sparse developments of varying building footprints, orientation and plot sizes.

Irregular and sparse
An irregular and sparse grain of development is typically found in suburban and more peripheral areas such as Claremont lane, Esher and Cavendish Road, Weybridge.

6.9 Edge of settlements

6.9.1 New developments on the edge of settlements

The fringes of settlements, particularly in the southern part of the Borough, have a semi-rural character with a high degree of diversity in terms of architecture and built form.

- Proposals should enhance the natural setting and encourage biodiversity.
- New developments in residential areas should not disrupt the prevailing scale of the edge of settlement character.
- New developments should preserve or enhance the natural setting of Elmbridge's semi-rural edges and open spaces.
- Preserve ecosystems on edge of settlements for example by using low level lighting.
- Pedestrian and cycle connections to open green space should be made to maximise the enjoyment of these amenities while better connecting these spaces.

Fig 6.41 Tilt Road, Cobham

Fig 6.42 Mill Road, Cobham

Fig 6.43 Leg of Mutton Field, Cobham

Fig 6.44 Winterdown Road, Esher

Fig 6.45 Blundel Lane, Stoke d'Abernon

Fig 6.46 Old Claygate Lane, Claygate

7 Identity

The identity of an area comes not just from its streets and public spaces but also from the design of its buildings. This is not about architectural style, but about key principles of building design. All new buildings should take into account the architectural character and materials of the surrounding area.

7.1 Local vernacular

7.1.1 Materials and construction

New developments should reflect local character, materials and details that are typical of the region, balanced with the need to prioritise sustainability and innovation.

A. Proposals for new build developments and for alterations to existing buildings must consider the character of a site and its surroundings to inform the architectural approach and when specifying materials and construction details (see section 1.6.4 on design approach).

- In sensitive historic settings such as Conservation Areas, the use of traditional materials and detailing is advised. In areas that are less constrained by heritage, modern materials and methods of construction might be acceptable.

- The detailing and facing materials of any extension should take account of those on the existing property.

Fig 7.1 Examples of characteristic material and architectural features

7.2 High street frontages

7.2.1 Traditional shopfronts

The shopfront is an important part of the overall building design and should not be considered in isolation. Proportion, style, age, materials, and solidity should all be carefully considered. Shopfronts should complement the building they inhabit and strike a balance between the business' branding and the language of the street.

- Shopfronts should respect the bays of the host building with fascia correlating to the natural rhythm.
- Shopfront fascia should not dominate building's façades. In historically sensitive locations signage should respect fascia lines and not disrupt the existing character.
- Original, historic features should be retained or restored where possible.
- Elements such as doors, fascia, windows and lighting should be in proportion with both the building itself (including the character of upper floors, scale, proportion, and materials) and the general street scene.
- Shopfront security grille shutters should be implemented internally, be permeable and should reflect the predominant colour scheme of the wider design.

Fig 7.2 Examples of attractive traditional shopfronts around Elmbridge

Fig 7.3 The key elements of a traditional shopfront

Fig 7.4 How a traditional shopfront should sit in an existing parade

Fig 7.5 Examples of attractive contemporary shopfronts

7.2.2 Contemporary shopfronts

Just as traditional examples are appropriate for their setting, contemporary shopfront design in new developments should respond to their new context. With buildings often being less ornate, of a new scale and modern material palette, shopfronts should respond appropriately. Stallrisers can be lower, frame materials thinner and pilasters replaced with less ornate structural columns. The elements and proportion remain although the implementation can be adjusted to suit.

- Applicants should understand and respond to the proportion of the surrounding buildings and the shop's parent building.
- Cornice should define the top of the shopfront above the fascia with a good relationship to the first floor of the facade.
- The design of the facade should be regular and graphically coherent with the parade.
- Shopfront security grille shutters should be implemented internally, be permeable and should reflect the predominant colour scheme of the wider design.

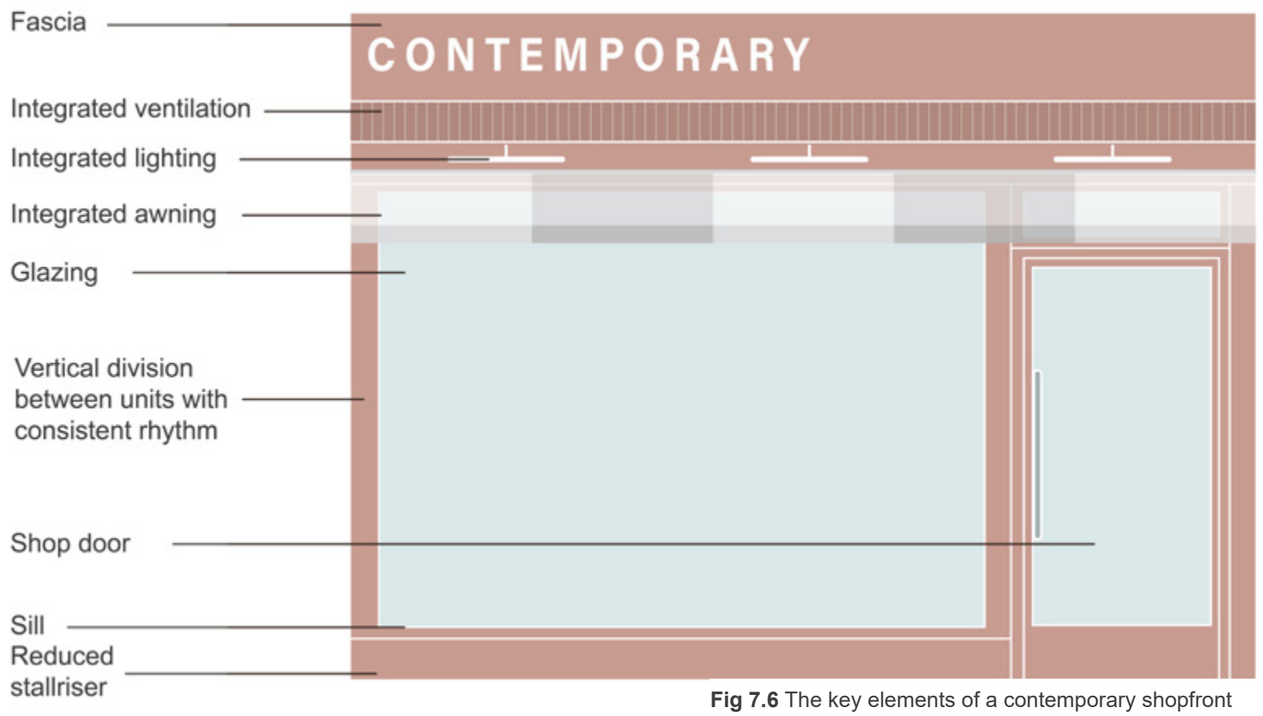


Fig 7.6 The key elements of a contemporary shopfront

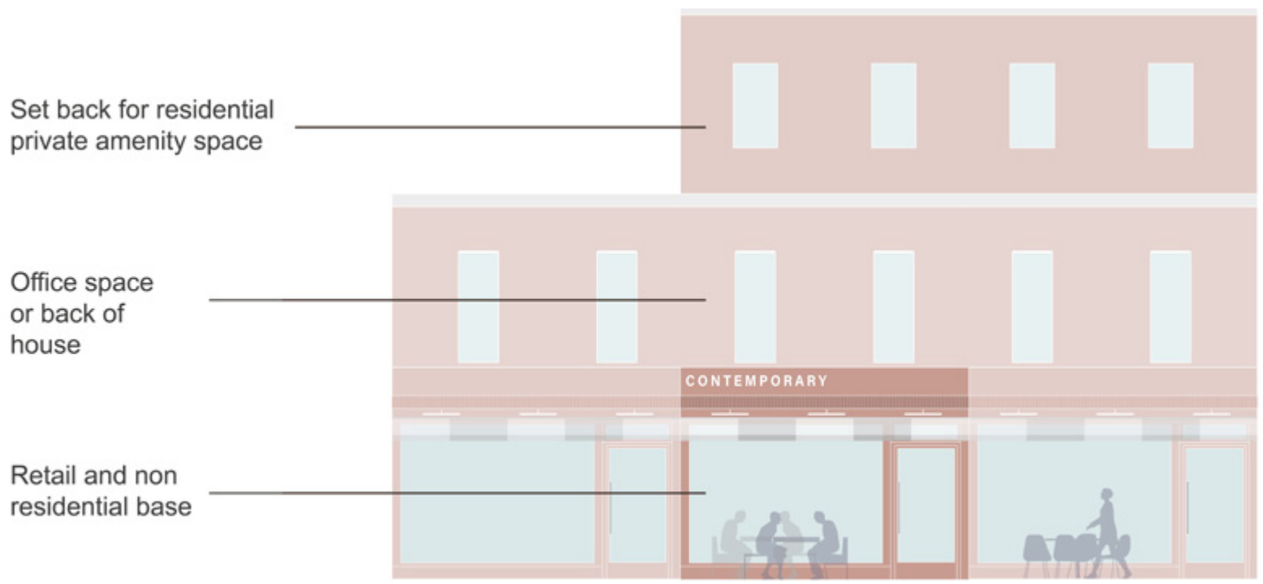


Fig 7.7 How a contemporary shopfront should sit in an existing parade

7.3 Illuminated adverts

7.2.3 Illuminated adverts

Illuminated advertisements should be attractive and not so bright that they result in a negative impact on the local townscape and environment.

- Recommendations for the acceptable luminance levels of adverts are set out by the Institute of Lightning Professionals in Tables 3 and 4 of the Professional Lighting Guide 05 The Brightness of Illuminated Advertisements
- The maximum value of luminance anywhere on the surface of an advertisement at any time during the night applicable in Elmbridge Borough should not exceed maximum luminance set out in Figure 7.8.
- Where the location of advert falls within more than one category in figure 7.8 (in the 'where applicable' column), the lowest maximum luminance should be applied.
- During the daytime sign luminance should never exceed 5,000cd per square metre.
- Adverts in Conservation Areas should be externally illuminated only.

ENVIRONMENTAL ZONES AND THEIR MAXIMUM PERMITTED RECOMMENDED LUMINANCE (cd/m-2)			
Broad lighting character	**Where applicable**	**Illuminated area up to 10sqm**	**Illuminated area up above 10sqm**
Intrinsically dark	Green Belt and Riverside Residential Area Type	100	n/a
Low district brightness	Conservation Areas	400	200
Medium district brightness	Urban and Suburban Residential, and Campus Area Types	600	300
High district brightness	Mixed Use, Light Industrial, Retail Park and Business Area Types	600	300

Fig 7.8 Maximum recommended luminance in different areas

8 Public spaces

The quality of public space is partly about the way it is designed and partly about the way it is enclosed by buildings to create well-proportioned spaces.

8.1 Enhancing the public realm

8.1.1 **New streets within developments**

Streets are a key placemaking element and play an important role in the public realm, not only for the movement of traffic, but as multi-functional spaces, contributing to the structure and character of a place. Landscaping is often a key feature in defining streetscapes.

Fig 8.1 Car parking and SuDS (rain garden) integrated into landscape verge in secondary street (© GreenBlue Urban).

Fig 8.2 Well integrated street trees and green verges, Stoke D'Abernon

Secondary streets
Medium sized, tree-lined, connecting streets, aiding movement and encouraging pedestrian and cyclist use.

Based on the optimal dimensions below, front-to-front distances must provide:

- Adequate parking, such as within landscaped verges
- Segregated street furniture
- Safe streets for pedestrian and cyclists
- New landscaping and tree planting

A. Trees and planting along streets and in front gardens must be used to bring nature into the streetscape.

- Tall fencing to the front of properties using man-made materials should be avoided.

- Streets should be designed to constrain vehicle speeds and establish narrow and varied alignments. The key element of the street design – roadway alignment, parking, footways, planting, signage, furniture and lighting should all be used to help reduce traffic speeds to safe residential levels and reinforce the street character.

- Streetscape design should be used to frame views and vistas to prominent buildings and destinations, defining spaces and places, to provide legibility and a sense of identity.

- New development creating new or improving existing public realm should consider crime prevention and the fear of crime as set out in the Secured By Design guidance. The prevention measures could include provision of lighting columns as opposed to bollard lighting that should only be used for wayfaring purposes.

See also chapter 5.3.

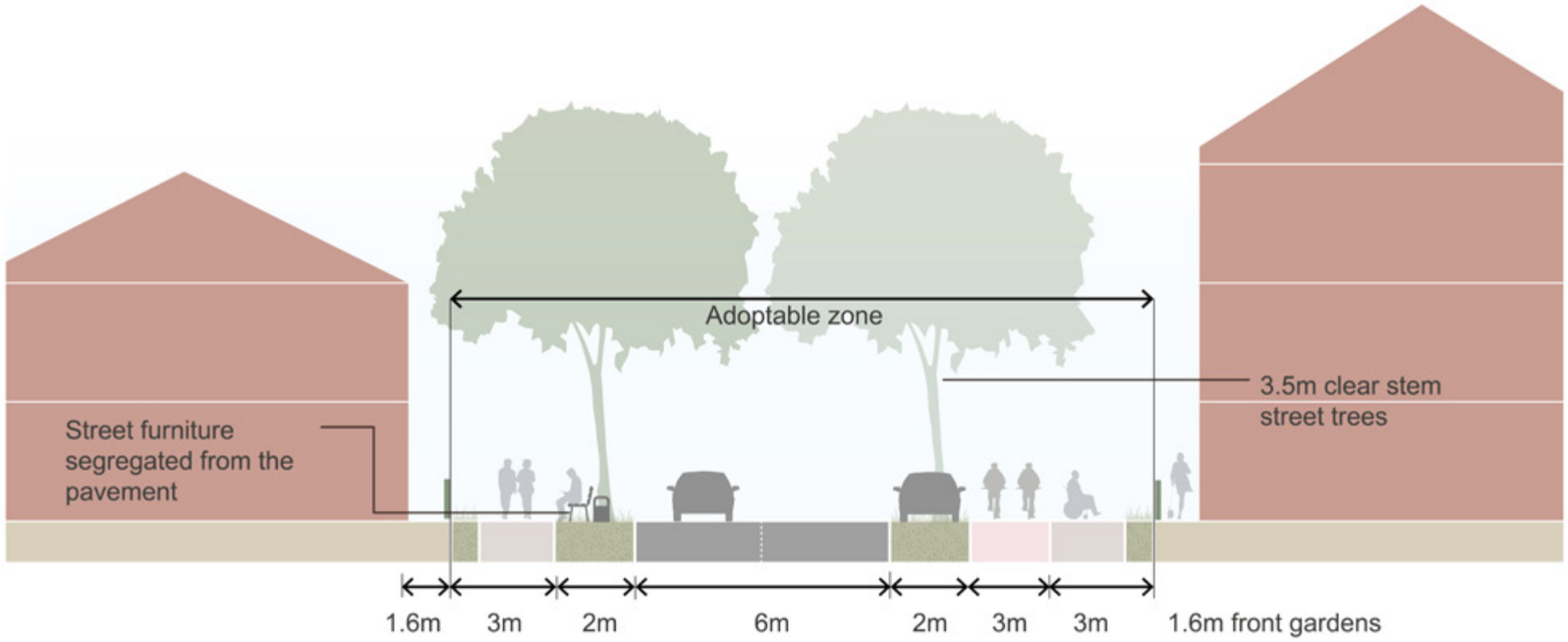


Fig 8.3 Optimal dimensions for new streets within developments

8.1.2 Improving the public realm around new developments

Coordinated improvements should be made to the public realm between the building line and the carriageway, in collaboration with the highways authority.

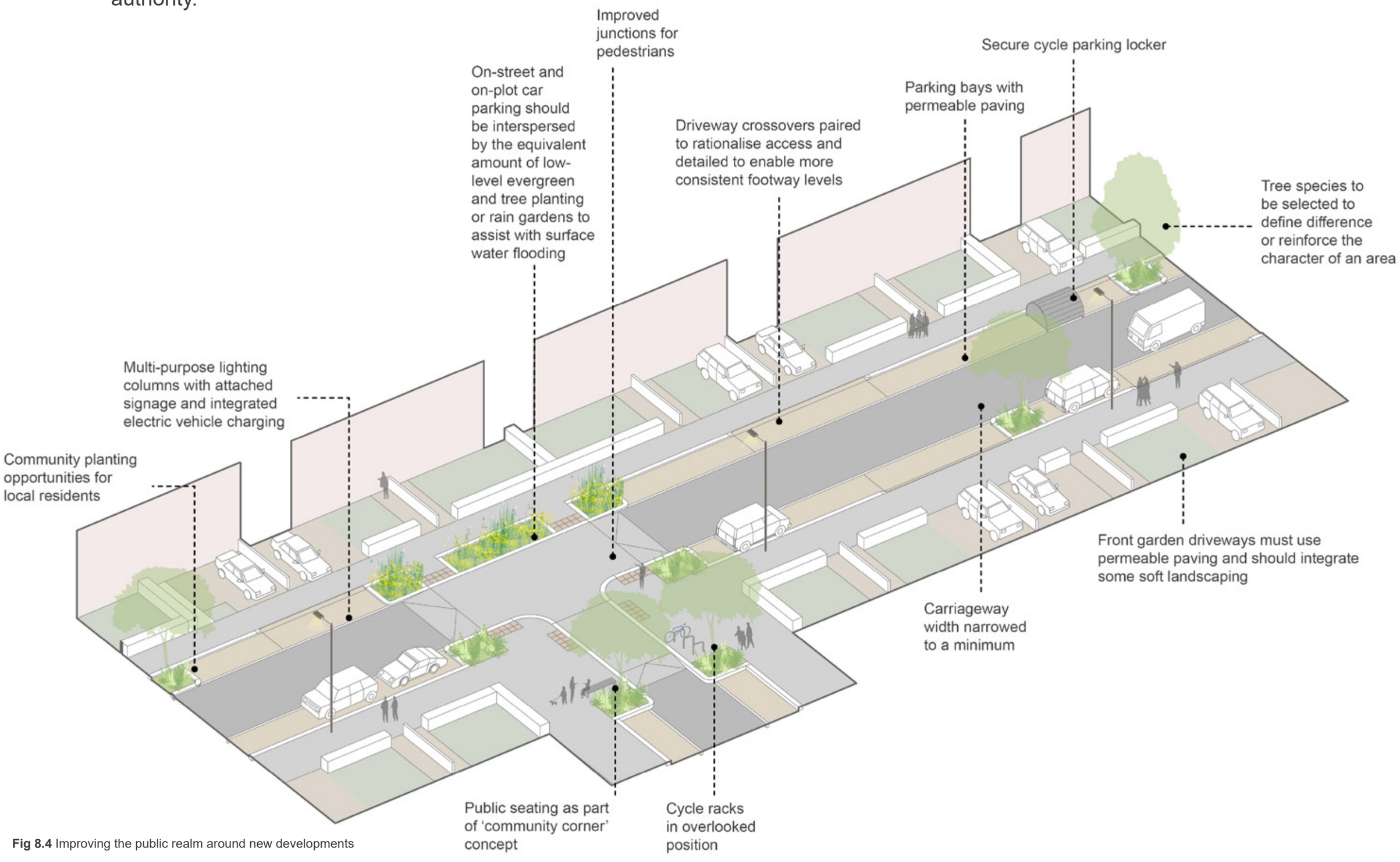


Fig 8.4 Improving the public realm around new developments

8.1.3 Public art and wayfinding

Public art plays an important role in creating successful and vibrant communities, that contributes to the identity, understanding, appreciation and enhancement of public places.

- Public art should be used to help provide local places with an identity, interpret the history of the area or celebrate the local community.
- Where feasible public art should be collaborative and form part of wider initiatives in the Borough.
- Public art should be deployed sparingly and effectively, to establish focal points, way-markers or mark entrances or features.
- Signage should be integrated into the public realm both as a tool for wayfinding but also as an expression of local heritage, community and culture.
- Educational signage is encouraged, particularly along walking trails.

Fig 8.5 Public art in Cobham, Elmbridge

Fig 8.7 Traditional signage

Fig 8.9 Public art precedents

Fig 8.6 Voluntary book sharing boxes, Elmbridge

Fig 8.8 Street clock in Oxshott

8.1.4 Street furniture

Street furniture should be used to enhance the quality of the streetscape, providing people with things they need to use and enjoy the public realm. Street furniture can also encourage positive activity within spaces.

A. All street new furniture must adhere to the standards and requirements set out in the Department for Transport's Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure.

- Cycle stands should be located on cycle desire lines in well over-looked places.
- Street furniture should respond positively to the local, natural and historic character of the area, with consideration to the scale, height, materials, detailing, mass, built and articulation of the street furniture.
- Formal and informal seating should be provided in areas protected from unpleasant elements such as wind, rain and vehicular traffic.
- Bins should be associated with seating locations where people are likely to congregate, rest or pause. Litter bins should be constructed/finished using high quality, robust 'self-coloured' materials such as durable timber and/or stainless steel.
- Bollards should be used sparingly and only where necessary or helpful in preventing conflict between pedestrians and vehicles or in distinguishing the areas available for vehicles.
- Bollards should meet best practice guidance for visibility for people with visual impairments with coloured reflective bands where suitable.

Fig 8.10 Positive examples of street furniture

8.2 New open spaces

8.2.1 Amenity and play

Children's play is an essential part of every neighbourhood and must be provided in accordance with minimum standards.

A. All outdoor play spaces must be located in areas which are well overlooked, accessible from footpaths, and take advantage of the location to offer sunshine, shelter, shade and views where possible.

- All outdoor play should be inclusive to children with varying physical and sensory abilities and accessible to children and carers who use wheelchairs.

- Play equipment or features should be safe, innovative, open to interpretation, flexible in use; offering opportunities for imaginative play and improving physical, mental and social abilities.

- Children play areas should use varied materials to encourage connection with the natural world and imagination. The use of natural materials is encouraged.

Fig 8.11 Space standards for NEAPs, LEAPs and LAPs

Neighbourhood Equipped Area Play (NEAP)	Local Equipped Area Play (LEAP)	Local Area Play (LAP)/Doorstep Play
• Primarily for older children from 10-14+ years, with relative independence • Minimum activity zone: 1000sqm • Maximum walking time to facility: 15 minutes	• Primarily for children ages 5-9 years old, who are starting to play outdoors independently • Minimum activity zone: 400sqm • Maximum walking time to facility 5 minutes	• Primarily for children up to the age of 6 • Minimum activity zone: 100sqm • Maximum walking time to facility 1 minute

9 Uses

Sustainable places include a mix of uses that support everyday activities including space to live, work and play.

9.1 Animating streets

9.1.1 Active frontages

Building fronts should promote activity and encourage movement to/from the public realm.

They should provide informal surveillance, particularly in and around local centres and especially at corner and backland sites.

A. New developments must provide active frontages along all primary and secondary streets by avoiding blank walls. Developments can achieve this by including windows and entrances of non-residential uses at ground floor level.

- Developments on primary mixed-use streets should maximise active frontages by entrances, windows, and ground floor by programming that can promote around-the-clock activity on the street and provide passive surveillance.

Fig 9.1 Shopfrontage turns the corner, Walton-on-Thames

Fig 9.2 Passive surveillance from ground floor windows, Thames Ditton

Fig 9.3 Activated public space, Cobham

Fig 9.4 Activated corner, Claygate

Fig 9.5 Outdoor cafe seating, Claygate

Fig 9.6 Passive surveillance from residential floors, Hersham

9.2 Improving mixed-use land

9.2.1 Improving high street backlands

This section focuses on how to optimise the use of land in a mixed use centre, while enhancing high streets and parades.

- Dimensions - Any new building should respect neighbouring building's right to light.
- Servicing - A building's servicing yard should be embedded within the built form/street block, with access being from the high street or alley.
- Access - Commercial uses should be accessed via the main road, with residential entrances sitting adjacent to enhance the active facade.
- Public realm - Buildings should have well designed relationships with surrounding public realm. Existing routes should be retained and enhanced through accessibility improvements, surface maintenance and the introduction of planting where appropriate.

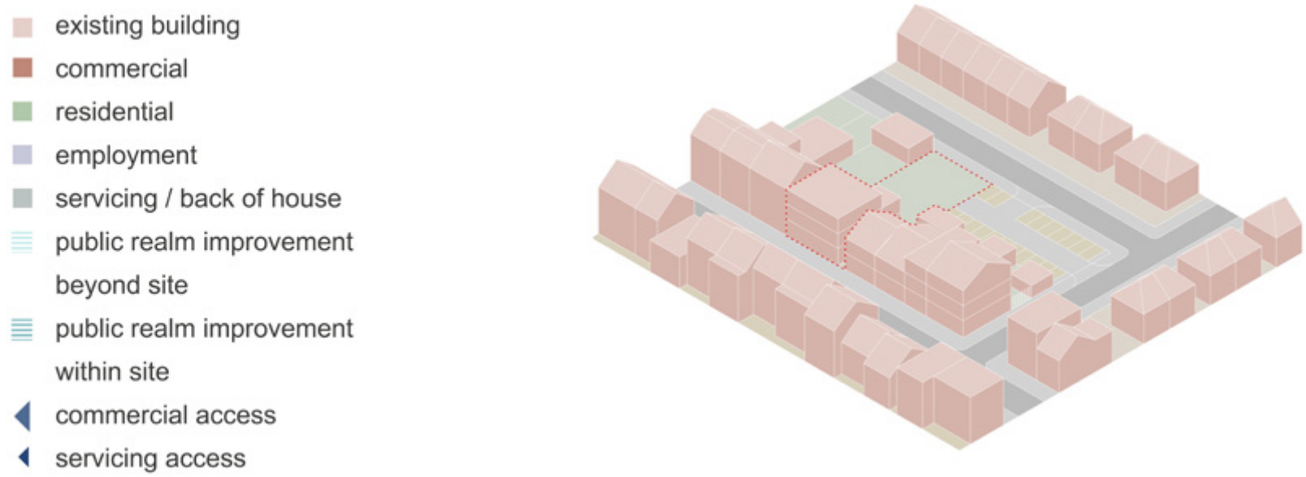


Fig 9.7 Typical high street backland plot

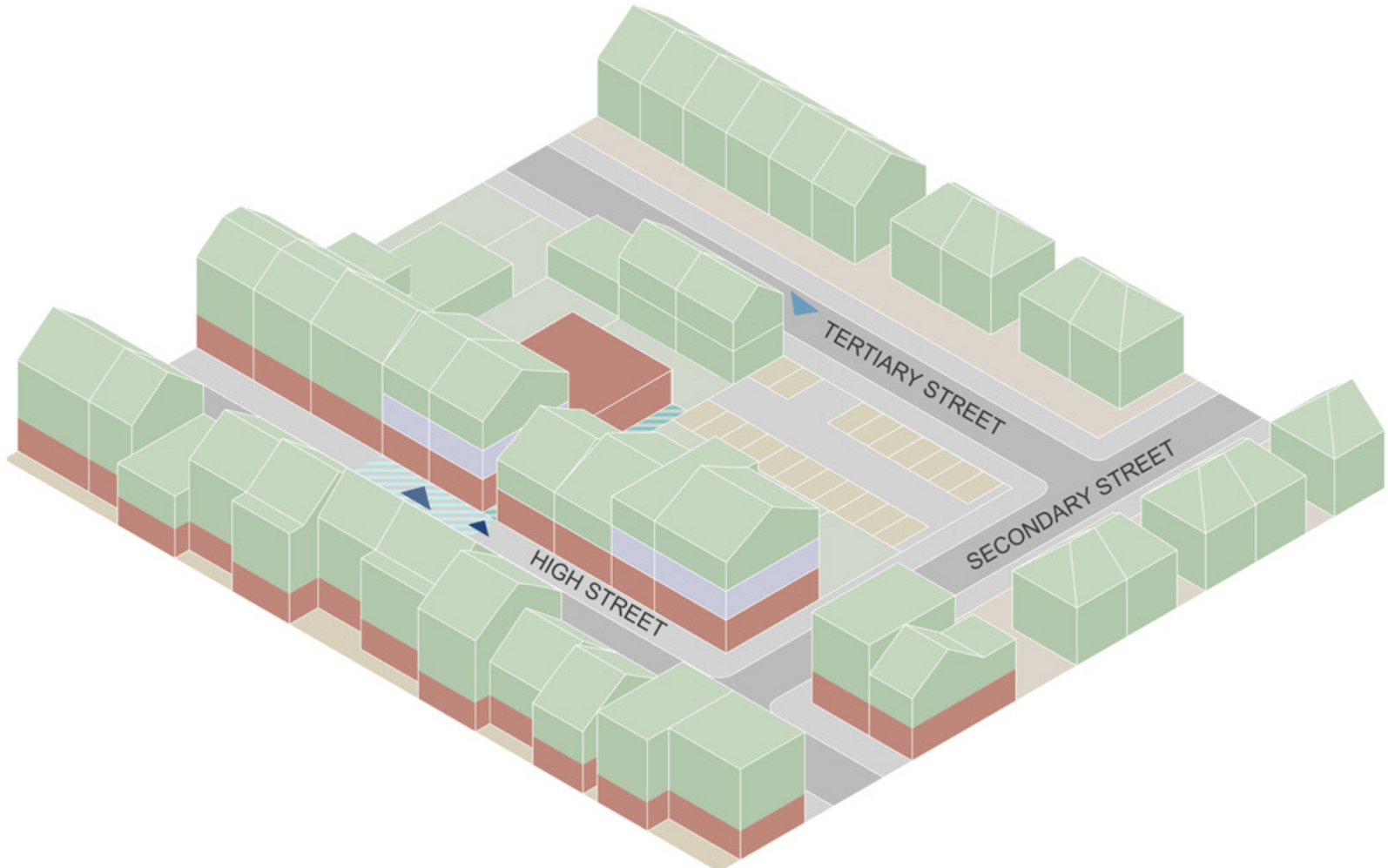


Fig 9.8 Proposed high street and backland infill development

9.2.2 Improving other backlands

Optimise the use of land in mixed-use areas while repairing the urban fabric and animating streets.

- Dimensions - Any new infill building should be subordinate to the scale of surrounding buildings.
- Servicing - Servicing the commercial buildings/uses should be considered.
- Access - Access to dwellings should aim to be on multiple edges to help activate the frontage.
- Public realm - Homes should have well designed relationships with surrounding public realm, with clear demarcation of defensible zones and private outdoor amenity spaces.

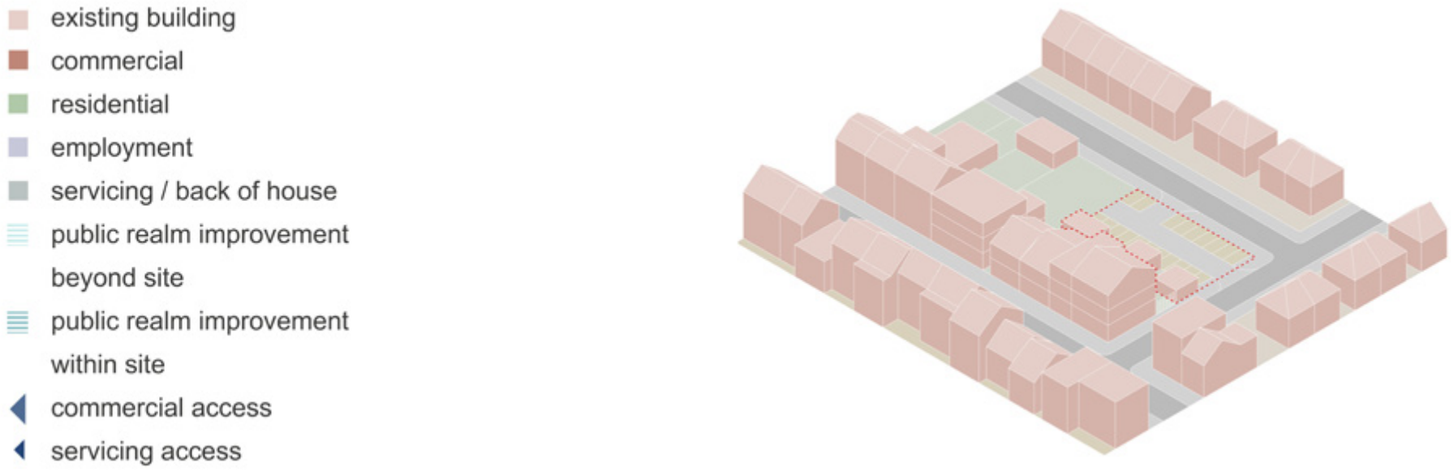


Fig 9.9 Typical backland plot

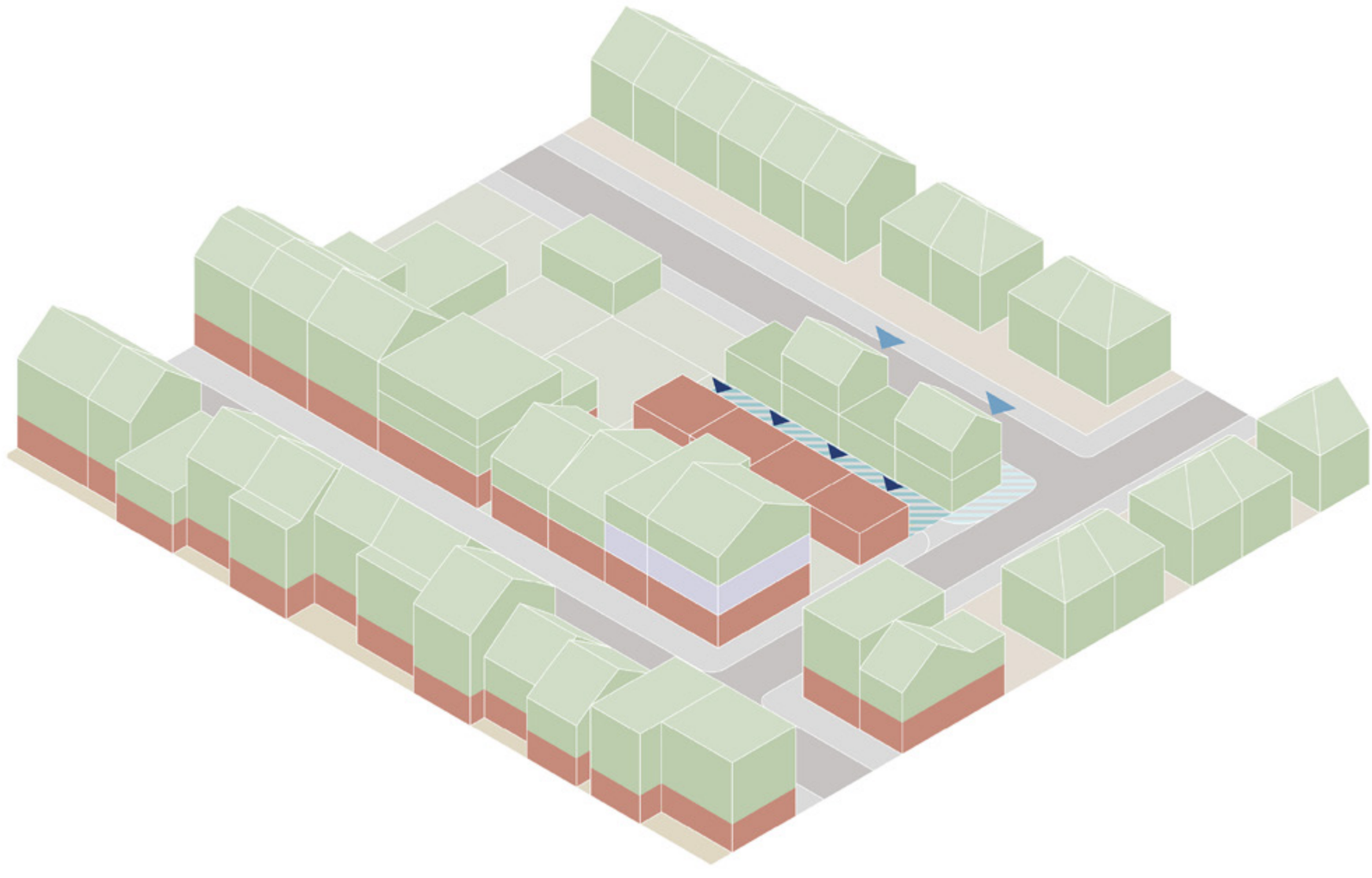


Fig 9.10 Proposed backland infill development

9.2.3 Examples of good practice precedents

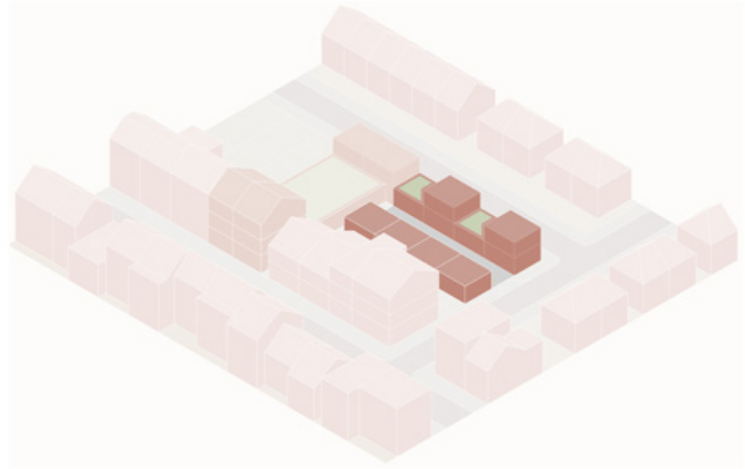


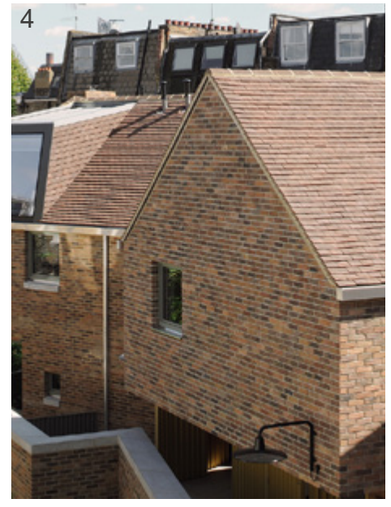
Fig 9.11 Proposed high street and backland infill development

- Images 1 & 2: Foundry Mews in Barnes by Project Orange (© Jack Hobhouse) The proposal uses contextual local materials with traditional details while introducing a compact mixed use scheme to the rear of traditional building fronts.

- Images 3 & 4: Moore Park Mews by Stephen Taylor Architects The project cleverly orientates four three-storey houses in a confined infill site while creating private courtyards and a newly defined laneway.

- Image 5: Traditional backland mews infill development in Golders Green maintains the architectural and material character of the main, high street facing building while providing active frontages to the rear.

- Image 6: Wilderness Mews in Stratford by Morris & Co
  The eights mews houses are designed as part of an ensemble and sets to encourage social interactions by providing a shared courtyard at the front.



10 Homes and buildings

Well-designed homes and buildings are functional, accessible and sustainable. They provide attractive environments that support the health and well-being of their users. They meet a diverse range of needs, are adequate in size, fit for purpose and adaptable. They relate positively to the spaces around them and allow for easy operation and servicing.

10.1 Desirable housing types

10.1.1 A good home

Defining features of good homes covering: space standards, health, adaptability over time for ageing (including level thresholds throughout), space to work from home, affordability.

- New homes should be built to a standard set out in the Secured By Design Homes 2023 guide to ensure their long term security and safety.

- A diverse mix of tenure should be delivered across the development to enable social inclusion and cater for a wide variety of groups ranging from the elderly to young, growing families.

- A minimum 5% of new homes should meet Building Regulations standard M4(3) 'wheelchair user dwellings' on sites of 20 or more new homes.

- It is recommended that M4(2) dwellings are distributed throughout the ground floor of new developments to offer easy access to parking and a range of aspects, views and unit sizes.

- New homes should be designed to Lifetime and Wheelchair Home standards, to ensure they are more accessible and adaptable, allowing people to live independently for as long as possible, and providing greater choice for disabled people who cannot achieve independence due to lack of suitable housing.

- New developments should follow the recommendations of the Housing our Ageing Population Panel for Innovation (HAPPI) report to enable people to live healthy, active lives and maximise the opportunities for community diversity, inclusion and cohesion.

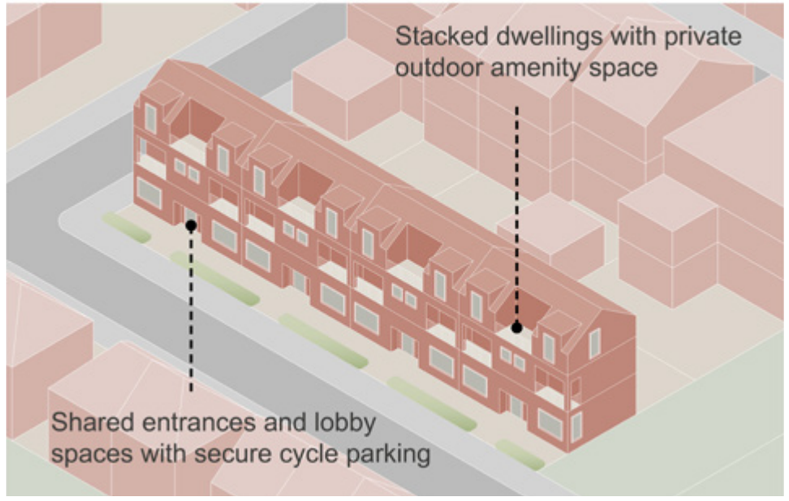


Fig 10.1 Flats and maisonettes are suited to urban and mixed-use areas

Fig 10.2 The project aim was to work with the varying landscapes to create strong connections between the residents and nature through sensitively knitting in new architecture amongst heritage buildings and the parkland character. (Woodside Square by Pollard Thomas Edwards © Morley von Sternberg)

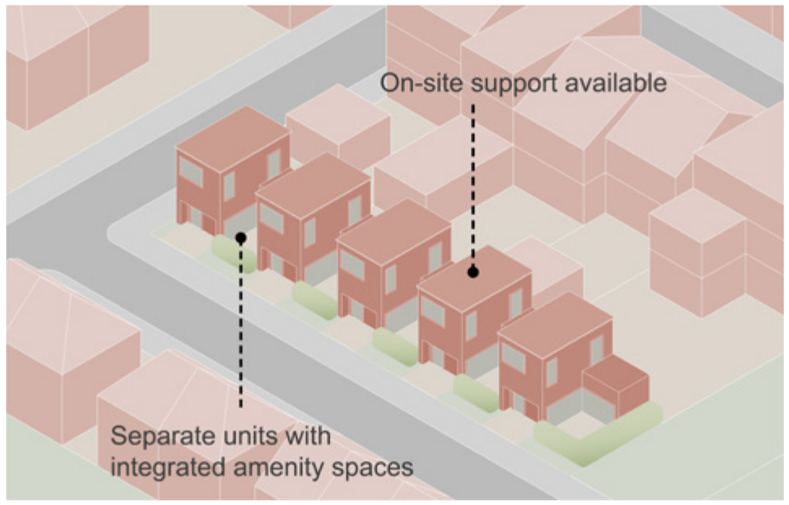


Fig 10.3 Later living housing types are suited to urban and mixed-use areas. A range of housing options should be available for older people in Elmbridge, offering varying degrees of independence, including adaptable mainstream housing (fully independent), specialised housing (semi-independent), and care homes (dependent living).

Fig 10.4 Chapter House in Lichfield, Staffordshire by Proctor & Matthews Architects. This scheme provides quality but sensitive design in a conservation area while responding to historic elements such as medieval public gardens. (Chapter House by Proctor & Matthews © Tim Crocker)

10.2 Private amenity

10.2.1 Ground level and upper level amenity

All new homes should have private amenity space proportional to the size of the dwelling and its immediate context.

- An appropriate size outdoor amenity space should be provided for each home in accordance with Figure 10.5 as a minimum.

- Apartments should be provided with private amenity space in the form of a balcony or terrace, where other amenity space, such as a communal garden, is not available. If the site is located within an Air Quality Management Area (AQMA), a bespoke solution may need to be considered.

- Private amenity space including boundaries should be designed with reference to 'Secured by Design' standards and recommendations.

Fig 10.5 Minimum amenity space requirements for apartments/houses of varying sizes

DWELLING SIZE	DWELLING TYPE	MINIMUM REQUIREMENT
1 bed 1 person	Apartment	3 sqm
1 bed 2 person	Apartment	5 sqm
2 bed 3 person	Apartment	6 sqm
2 bed 4 person	Apartment	8 sqm
3 bed 5/6 person	Apartment	10 sqm
1 bed 1/2 person	House	40 sqm
2 bed 3/4 person	House	50 sqm
3 bed 4/5/6 person	House	60 sqm
4 bed 5/6/7 person	House	70 sqm
5 bed 6/7/8 person	House	80 sqm

Fig 10.6 Traditional planted front garden in a single family home

Fig 10.7 Contemporary projecting balconies for apartments

10.2.2 Front curtilage

The front curtilage acts as defensible space between homes and the public realm. It will vary in size depending on the context and will therefore require appropriate design and boundary treatment.

- Adequate defensible space, of a minimum depth of 1m, should be provided where ground floor residential uses are proposed.
- Public/private spaces should be clearly delineated with boundaries such as walls, fencing or planting, to indicate management responsibilities and improve safety and security.
- Where possible, hedges and planting should be used instead of, or in addition to, fences or walls as boundary treatment to create a green street character and to maximise biodiversity.
- At plot access points, a hard landscaped pedestrian path within the defensible space zone should be provided for wheelchair and bin access. Single-step transitions should be avoided where possible to minimise trip hazards.

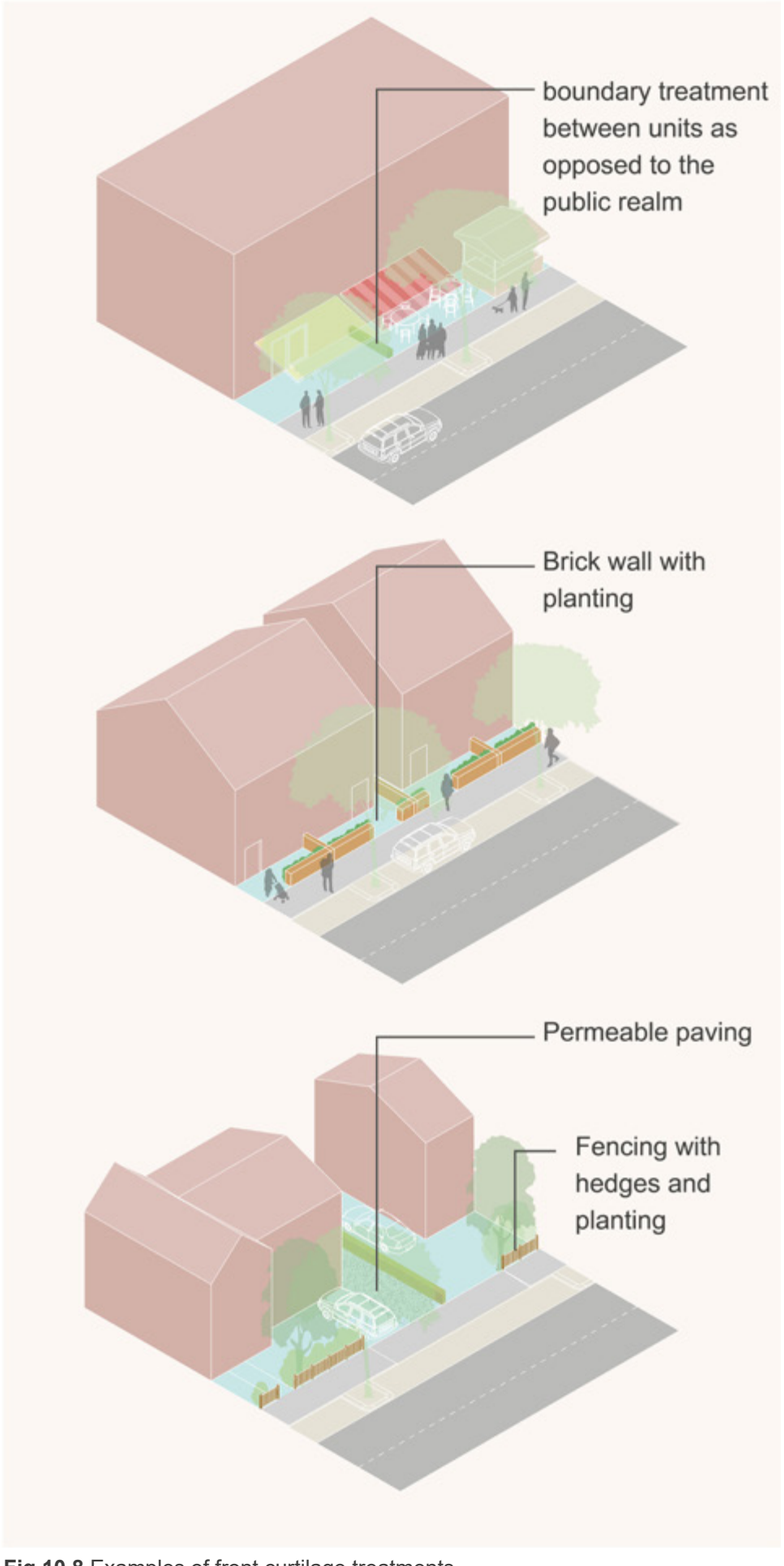


Fig 10.8 Examples of front curtilage treatments

Mixed-use areas
Plots within mixed-use areas will typically have smaller set backs from the public realm unless they are along high streets and parades where ground floor food and beverage uses may require outdoor seating areas.

Urban areas
Plots in urban neighbourhoods may have a small front garden with boundary treatment such as low-level brick walls with planting.

Suburban areas
Plots in suburban neighbourhoods will have larger front gardens which could incorporate car parking. The hardstanding is permeable and boundary treatment is soft landscaped with trees and shrubs.

10.2.3 Rear curtilage

- A minimum 22 metres back-to-back distance between facing windows of habitable rooms should be achieved to retain sufficient privacy and outlook (Fig 10.9). This does not apply in mixed use areas. On some constrained sites, where standard minimum separation is not possible, innovative design solutions could be used (Fig 10.11).

- In mixed use area types, the separation distance between rear facing windows may be reduced from 22 metres subject to incorporating design features that enable avoidance of loss of privacy and light, for example by using angled windows (Fig 10.10).

- Side facing windows above the ground floor should not overlook neighbouring private amenity space or habitable room windows at a distance of less than 10 metres.

- Gardens should be accessible to disabled and elderly users.

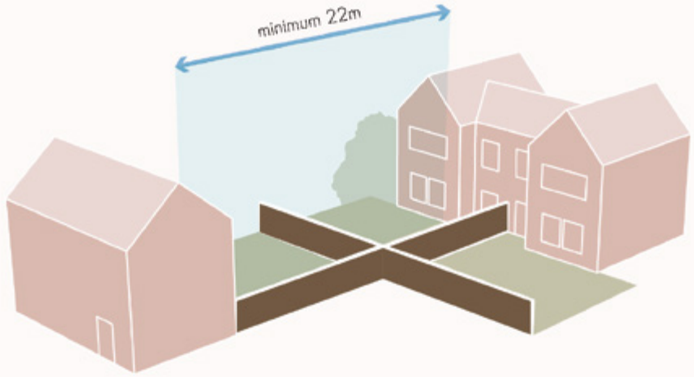


Fig 10.9 Standard back-to-back distances between habitable room windows above the ground floor.

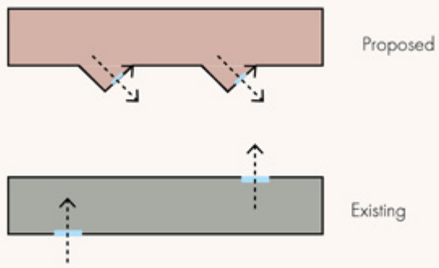


Fig 10.10 Overlooking issues between properties in mixed-use areas can be resolved by incorporating angled or staggered windows

Fig 10.11 Constrained sites - innovative design solutions can overcome overlooking issues where the geometry or area of a site is constrained to the point where standard minimum back-to-back distances for private amenity are not possible.

Building setbacks, roof terraces and no habitable rooms at rear of first floor enables closer proximity between dwellings while avoiding overlooking into neighbouring gardens.

10.2.4 Refuse storage

Storage space for waste and recycling bins should be well considered and integrated into the design of a development, not added as an after thought.

A. All bin store areas must be well integrated into the overall site layout and design, through the landscape and/or built form.

B. All residential schemes must take account of how residents will get domestic waste and recycling out of their homes, as well as how waste operatives can easily access and collect this refuse waste. This is particularly important on sites with communal storage, backland sites or where access is restricted by a narrow entrance.

C. On sites suited to kerbside collection, refuse storage must be within 10 metres of vehicle access, and within three metres of the entrance to the premises from the public highway or access road wherever possible.

D. Houses: storage space must be large enough to accommodate at least two wheeled bins (one for landfill and one for recycling) plus a smaller food bin per home.

E. Flats and communal properties: bin stores for apartment buildings must be large enough to accommodate communal bins with sufficient capacity for fortnightly collections of landfill and recycling and weekly collections of food waste.

F. Non-residential schemes must carefully consider where commercial waste bins are stored to ensure they work well for users and waste operatives, integrating them thoughtfully into servicing areas.

- The storage areas for communal bins should:
  - Be at ground level.
  - Allow enough space for the bins required by the property.
  - Allow for filling and emptying of the bins and provide a clear space of 15cm between bins.
  - Should be sited so that the bins do not need to be taken through a building or across designated parking spaces.
  - Be conveniently located for residents and should be no further than 30 metres from the main entrance door to the building.
- Where bin storage is included within the rear garden space, this should be in addition to the minimum internal bin storage space requirements and be directly accessible from the street.
- Each individual bin should be accessible, with collection operatives able to empty it without needing to remove other containers.
- All doors (where applicable) for the storage area should open outwards, with a clear opening of at least 1500mm. A facility to hold open the doors during collection should be installed.

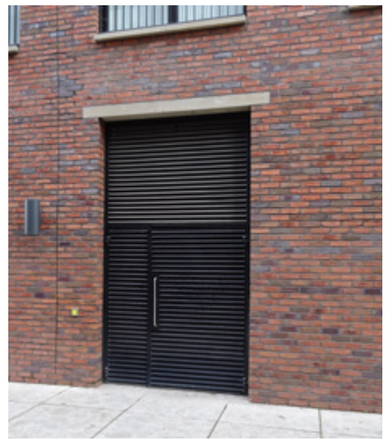


Fig 10.12 Examples of waste and recycling storage integrated into the overall built form of a development in a mixed-use area.

Fig 10.13 Examples of waste and recycling storage integrated into the porch of an individual dwelling

11 Resources

Well-designed places and buildings conserve natural resources including land, water, energy and materials.

Their design responds to the impacts of climate change by being energy efficient and minimising carbon emissions to meet net zero targets by 2050. It identifies measures to achieve: mitigation, primarily by reducing greenhouse gas emissions and minimising embodied energy; and adaptation to anticipated events, such as rising temperatures and the increasing risk of flooding.

11.1 Limiting energy demand

11.1.1 Limiting energy demand

Elmbridge Borough Council declared a climate emergency in July 2019 and pledged to become carbon neutral by 2030. This is now set out in the 2030 Vision for Elmbridge – a sustainable, thriving Elmbridge driven by the power of our community. To assist with the sustainability aim, this Design Code intends to reduce the energy demand in all new developments.

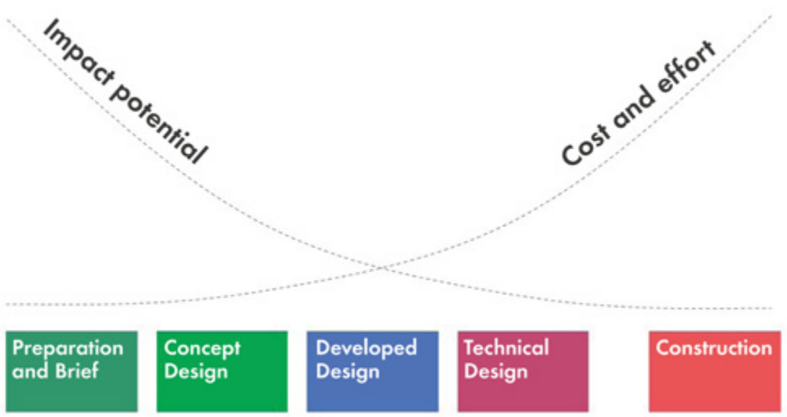


Fig 11.1 Relationship between cost, impact and timing in the application of sustainability strategies

- All applications should make the fullest contribution to minimising carbon emissions and responding to the climate and biodiversity emergency. The following principles should underpin the development of design proposals and should be used wherever possible:

- Ensure the very latest sustainability guidance, targets and best practice inform the brief for a site, at the time of writing this includes the RIBA 2030 Challenge, the suite of LETI guidance documents and emerging UK Net Zero Buildings Standard.

- Consider sustainable design principles from the very earliest stages of the design process as the potential environmental impacts can be very significant.

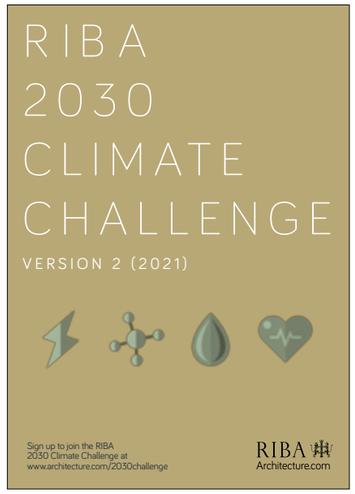
- Value existing structures and materials embodied on a site and look to re-use these as far as possible.

- Understand the local climate context in which a proposed building will be situated including the future climate scenarios and risks.

- Adopt passive design strategies to control solar gains and maximise daylighting.

- Take a fabric first approach to design energy efficient development, and minimise any future operational need (e.g. manipulate building form and fabric to facilitate natural ventilation).

- Incorporate renewable energy technologies to meet any operational needs, and do so in a sensitive manner that maximises energy output and minimises visual impact.



RIBA 2030 Climate Challenge targets and checklist (2021)

LETI Climate Emergency Design Guide (2020)

LETI Net Zero Carbon Buildings Client Guide (2021)

LETI Climate Emergency Retrofit Guide (2021)

Current best practice highlights the following aspects that should be considered:

- The ratio of external surface area to net internal floor area (form factor) in delivering compact building form to maximise energy efficiency.
- Building orientation and window placements to balance daylight, space heating demand and overheating risk. Position spaces that benefit from passive solar gains (e.g. living areas) along south façades, with ancillary spaces (e.g. storage/WC) on the north facade.
- Sufficient building shading provision to east, south and west façades, to mitigate overheating risk and mechanical cooling demand.
- All units should be dual aspect homes to enhance cross ventilation and support overheating risk mitigation.
- A whole building airtightness strategy.

The Council encourages home owners:

- To take the opportunity to reduce operational carbon emissions when work is undertaken.
- For any post-occupancy monitoring results to be provided to the Council to support wider learning.
- To install in-home energy displays to monitor ongoing energy consumption to influence user behaviour.

Fig 11.2 Goldsmith Street, Norwich scheme demonstrates how passive design measures can deliver exceptional housing projects by (Goldsmith Street by Mikhail Riches © Tim Crocker)

Fig 11.4 Elmsbrook development in Bicester was steered by a strong set of sustainability targets and has achieved 84% reduction in carbon emissions (Elmsbrook by BioRegional © BioRegional)

Fig 11.3 Blackrock housing in Manchester reduced operational energy use to minimum practicable by adopting Passivhaus design standards (Blackrock Housing by GWPA © GWPA and Daniel Tomlinson)

Fig 11.5 The Active Classroom and Active Office in Swansea are designed to be energy positive buildings, with extensive PV solar arrays incorporated into the roof design (© Mike Roberts)

12 Lifespan

Well-designed places add to the quality of life of their users, and as a result, people are more likely to care for them over their lifespan. They have an emphasis on quality and simplicity.

12.1 Ensuring adaptability

12.1.1 Building less (and wisely)

Designers should take a whole life carbon approach. This covers the operational carbon during a home's lifespan and also the embodied carbon associated with site preparation, construction and end of life demolition.

- Proposals for new residential buildings should carry out a Life Cycle Assessment (LCA).
- Life cycle assessment should incorporate life cycle stages A1-A5, and include substructure, superstructure, MEP, facade and internal finishes as a minimum. The RICS Professional Statement Whole Life Carbon provides a useful methodology for calculation.
- Circular Economy Statements could be prepared detailing the information as usefully set out by the London Plan (2021) Policy SI 7 and Circular Economy Statement Guidance.
- Work with site topography to limit excavation, or reuse excavated soil on site.
- Design and choose materials to limit embodied carbon.
- Design 'light' structures. Substructures and superstructures account for 57% of small scale housing embodied carbon.
- Choose local materials where possible and seek to limit carbon associated with transportation of materials from extraction to manufacturing to project site.
- Consider carbon associated with the construction and installation process.
- Ensure longevity of materials to limit maintenance and replacement over time.
- Provide justification for the demolition of existing buildings. First consider retrofit of existing buildings or reuse of substructures / superstructures.
- Design buildings to be flexible so that they can adapt to users' needs over time, for example through loft conversion or internal reconfiguration.
- Consider how a building might adapt to a different use over a longer period, as Victorian and Georgian homes have shifted across retail, employment and residential uses.

12.2 Long-term management

12.2.1 Management Plans

Management Plans are required for developments of over 50 dwellings, or where they include publicly accessible assets such as open space, streets and community facilities. They must set out the management regime and structures in place to support the long-term high quality management of the development.

A. On developments of over 50 dwellings, or where publicly accessible assets such as open space, streets and community facilities are provided, day-to-day/regular management requirements must be outlined and committed to. This would include but is not limited to refuse collection, private deliveries and landscape maintenance.

- Management Plans should clearly set out the responsibilities for management of each part of the development including streets and open spaces that might be adopted by Elmbridge Borough Council and Surrey County Council, and shared spaces where these may be jointly or privately managed.

- Longer term stewardship requirements and implications also need to be considered, with management plans identifying when these aspects should be reviewed or a stewardship plan be triggered.

Fig 12.1 Turnham Green Terrace Mews establishes a new semi-public space alongside self-contained office / studio spaces (© Allies and Morrison)

Fig 12.3 Community-led housing mode at Coin Street, London Photo (Coin Street by Coin Street Community Builders © Morley von Sternberg)

Fig 12.2 Management Plans are central to maintaining shared spaces within development, as at Lampton Parkside, Hounslow

Fig 12.4 Clear demarcation of public and private space in the co-housing project (Marmalade Lane, Cambridge by Mole Architects © David Butler and TOWN)

13 Appendices

Appendix A - Glossary

Above Ordinance Datum (AOD)
Vertical datum used by the Ordinance Survey as the basis for deriving altitude. Building heights and parameter plan height limits are expressed in terms of AOD.

Access
This term has two broad meanings: The route(s) to a site and the route layout within a site, related to different modes of movement (foot, cycle, vehicular),
and:
The inclusive approach to design, which aims to create a built environment which is accessible to everyone, regardless of age or ability.

Active frontage
A frontage to the public realm which is characterised by multiple entrances and windows (domestic, commercial or retail), allowing an interaction of people between the public realm and the premises facing the street.

Advisory code
The individual rules that form the Design Code document that reflect best practice and good principles of design and are strongly encouraged to be adopted into any design decision or application.

Area type
Parts of the local area that share common features and characteristics. For example, a suburban area type might bring together a number of different housing estates with common densities, heights, building line, party wall condition etc, under the umbrella term “outer suburbs”. Common rules and parameters can then be applied to the “outer suburbs” area type in the design code. Example area types are provided in the National Model Design Code, but in practice area types should be defined locally.

Biodiversity Net Gain (BNG)
BNG is a way of creating and improving natural habitats. BNG makes sure development has a measurably positive impact (‘net gain’) on biodiversity, compared to what was there before development.

Boundary treatment
The physical interface that delineates the public street from the private building, crossing which enters a defensible zone before reaching the building entrance. Often associated with residential buildings, treatments can include planting, low fences or walls.

Borough-wide context
Relating to the borough of Elmbridge.

Block
A building or set of continuous buildings within a plot.

Building line
The linear definition of a building’s frontage facing the street. Usually shared by different building typologies and sizes to organise the definition between the public street and private internal space of the building and urban block.

Building height
The height of a building measured AOD. For the purposes of determining the prevailing height in the area, the number of storeys can be also used.

Bulk
The combined effect of the arrangement, volume and shape of a building or group of buildings. Can also be referred to as massing.

Character
The combination of features of a building or a place that give it a distinctive identity compared with other buildings or areas.

Character area
A geographical area defined by shared physical, environmental, social and economic characteristics. Character areas can vary in size and mix of components but are most recognisable and understood as a ‘place’.

Contemporary development
Contemporary development is the architecture of the 21st century. No single style is dominant, with development using a range of typologies and urban forms. It is characterised by efficient layouts that use a combination of low rise, mid-rise and tall buildings in perimeter blocks to optimise capacity. These tend to be set within gridded street networks that are highly permeable and legible.

Conserve
Enhancing and protecting the existing character.

Context
The surrounding environment of a proposed development, including existing buildings, landscape and consented schemes.

Courtyard block
A form of development whereby a central shared courtyard or green space is defined by a perimeter of apartments arranged in linear blocks. The internal space is private and used for shared amenity, accessed either via the internal circulation from the surrounding buildings or from the street via a gated access. A highly

efficient form of development, the perimeter buildings can comprise a number of typologies including terraced housing, linear blocks and taller elements integrated into the overarching urban form.

Cul-de-sac
A block characterised by an unconnected street network with routes terminating in a series dead-ends. A common layout typically associated with estate layouts, Post War Inner Suburbs and Industrial areas.

Curtilage
The enclosed space of ground and buildings immediately surrounding a dwelling-house. Not all buildings have a curtilage.

Curtilage zone
The land between the building line and the exterior building facade at ground level.

Datum
The prevailing building height of an area which serves to unify different building typologies and architectural styles through this shared and defining characteristic.

Defensible space
The area occupying space between a building entrance and the boundary treatment. Typically associated with residential buildings, they provide a sense of spatial separation and visual privacy between the public street and private home at ground floor.

Density
In the case of residential development, a measurement of either the number of habitable rooms per hectare or the number of dwellings per hectare.

Design code
A set of illustrated design requirements that provide specific, detailed parameters for the physical development of a site or area. The graphic and written components of the code should build upon a design vision, such as a masterplan or other design and development framework for a site or area.

Design-led approach
Using urban design and architectural processes to prepare robust proposals that represent the optimum design response to a site. This process should be evidenced through exploring a range of different scale, massing, layout and typology options.

Design
The integrative process of manipulating elements of built form, landscape and the public realm, to achieve specific functional, sustainable, social and aesthetic effects. It involves working at a variety of levels from strategic to detailed.

Design process
The process of developing a proposal for a site. The design process is expected to follow good urban design principles set out in the National Design Guide and the National Model Design Code.

Dual aspect
A habitable unit with windows on two walls facing different directions.

Efficient
An efficient building or block makes best use of available space and land, using a design-led process to identify an optimum urban form through scale, massing and layout.

Enclosure
The extent to which streets and open spaces are visually defined by buildings, walls and trees. A continuous perimeter of these components between public and private space can achieve enclosure.

Enhance
The act or process of improving in value, desirability or attractiveness, either a building or public realm, without changing its function.

Fabric first
A ‘fabric first’ approach to building design involves maximising the performance of the components and materials that make up the building fabric itself, before considering the use of mechanical or electrical building services systems.

Façade
The external faces of a building, characterised by a choice of materials, windows, doors, entrances, and openings.

Fenestration
The arrangement of entrances, windows, balconies, and other openings on a building facade. A well composed fenestration can achieve well balanced proportions and help reduce visual bulk.

Footprint
The shape taken up at ground level by a building or group of buildings.

Formal / informal
A formal layout of streets and building groups is characterised by symmetrical or geometric plans and elevations. The features of an informal design include layout and elevations which are asymmetrical, winding and which relate to natural site characteristics.

Floor Area Ratio (FAR)
A metric used to calculate the density of developments regardless of building type and use. FAR is expressed as the ratio of a building’s total floor area to the size of the plot upon which it is built.

$$\text{FAR} = \frac{\text{Total floorspace proposed}}{\text{Total site area}}$$

Free form block
A free form block is an urban form that includes a loose and irregular layout of buildings and spaces, resulting in an absence of clearly defined edges and an ambiguous boundary between public and private space. Blocks can be permeable to pedestrians but are usually set within impermeable and illegible street networks e.g. cul-de-sacs, estate layouts.

Frontage
The front face of a building well-articulated with entrances and windows. Well defined frontage enables overlooking from the building out into the street or space, creating a positive relationship between the two.

Gated
A residential area type that is extensive in Elmbridge. Generally low density, very large homes typically detached sitting on spacious plots. A gate separates the private streets from public streets.

Gateway
The marking of a point of entry to an area of character or to a specific development by:
A bridge crossing a river or railway cutting.
The view framed by a bridge, group of trees etc, at the point where the character of an area changes.
The creation of a key group of buildings, or the emphasis of a specifically located building which ‘announces’ or signifies the entrance to a development. The placing of a gate or the narrowing of a roadway by buildings, walls or other features, to signify a transition from one built environment to another. Gateways can be used to convey to motorists that speed should be reduced, as an area has pedestrian priority or a shared surface.

Grain
The pattern of property lines, both on plan and elevation, plots, streets and lanes. The general shape and direction of building footprints. Fine grain refers to the higher intensity of smaller plots or streets. Coarse grain refers to larger scale plots with fewer roads.

Green infrastructure
A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

Gridded street network
A style of street network defined by a repetition of streets and urban blocks intersecting at right angles, comprising an overall grid structure. Regular grid patterns allow for ease of accessibility and legibility.

Guidance
Non-prescriptive elements of a design code provided to promote best practice.

Habitable rooms
Habitable rooms include all rooms normally used for living or sleeping in and kitchens that have a floor area over 13 sqm. Habitable rooms over 20 sqm will be counted as two rooms. Bed sitting rooms will be counted as 1.5 habitable rooms. Small kitchens (13 sqm or less), utility rooms, halls, bathrooms, balconies, toilets, landings and garages are excluded. Any room above the ground floor level with an external window and with a floor area of 6.5 sqm or more capable of future conversion to a bedroom will be counted as a habitable room.

Hierarchy
A logical sequence of spaces, streets or building forms, increasing or decreasing in size or density throughout a development.

Immediate context
The area surrounding the site including the adjacent properties.

Impermeable
An unconnected street or pedestrian network with a low frequency of routes, inhibiting easy passage of movement. Often associated with coarse urban grain patterns or illegible layouts such as cul-de-sacs or free form block estates.

A rational layout establishes a positive relationship between buildings, streets and open spaces through a connected and legible street network, strong definition between public and private spaces and an appropriate sense of enclosure.

An irrational layout lacks a coherent relationship between buildings, streets and open spaces. Streets and pedestrian routes are often illegible, with an irregular arrangement of buildings and spaces providing very little definition between public and private space. As a result, streets often lack any sense of enclosure.

Inclusive design
Is the design of the built environment so that it can be accessed and used by everyone, regardless of age, gender and disability.

Innovative development
A departure from both the traditional and modern approaches. Innovation could be technological or design-related.

Layout
The layout of a block relates to the arrangement of buildings, open spaces and streets and the relationship between these components in creating an efficient, positive and legible environment.

Legible
The combination of buildings, streets, trees, and open spaces that use visual cues to create an intuitive and easily navigable environment.

Linear block
A building consisting of stacked apartments and maisonettes organised in a linear urban form. Can be stand alone and running parallel with a street to form a contemporary terrace, or form part of a courtyard block that forms the perimeter between the public street and private internal space.

Listed Building
A building that is included on the List of Buildings of Special Architectural or Historic Interest administered by Historic England on behalf of the Secretary of State for Digital, Culture, Media and Sport. Listed buildings are graded I, II* or II with grade, I being the highest. Buildings within the curtilage of a listed building constructed before 1948 are also protected. The significance of a listed building may be external and/or internal.

Local centre
These areas typically serve a localised catchment often most accessible by walking and cycling and include local parades and small clusters of shops, mostly for convenience goods and other services. They may include a small supermarket, post office, pharmacy, laundrette and other useful local services.

Local context
The area surrounding the site including the adjacent properties and local neighbourhood.

Local Plan
The plan for the future development of the local area, drawn up by the local planning authority in consultation with the community. In law this is described as the development plan documents adopted under the Planning and Compulsory Purchase Act 2004. Current core strategies or other planning policies, which under the regulations would be considered to be development plan documents, form part of the Local Plan. The term includes old policies which have been saved under the 2004 Act.

Locally Listed Building
A building, structure or feature which, whilst not on the national. list of buildings of special architectural or historic interest compiled by the Secretary of State, is important in the local context due to its architectural or historic interest or its townscape or group value.

MEP
Stands for mechanical, electrical and plumbing engineering. These three technical fields cover the systems that make buildings habitable.

Low-rise buildings
Low-rise buildings are classified as buildings up to and including 3 storeys e.g. up to 9 metres.

Mandatory code
The individual rules that form the Design Code document that are compulsory and must be incorporated into any decision or application.

Massing
The three-dimensional volume and structure of a building's urban form. Massing is expressed through the size, shape and scale of its different components. Commonly understood as the expression of a building without any finer architectural elements and details. Massing can influence the ways in which a building is perceived, particularly in regards to reducing the impact of visual bulk.

Mid-rise buildings
Mid-rise buildings are classified as buildings between 4 and 6 storeys e.g. between 12 and 18 metres.

Mixed-use / mixed-use development
Provision of a mix of complementary uses, such as residential, community and/or leisure uses, on a site or within a particular area.

Morphology
The evolution of form within the built environment.

National Model Design Code
The National Model Design Code provides detailed guidance on the production of design codes, guides and policies to promote successful design.

Natural surveillance
The discouragement to wrongdoing by the presence of passers-by or the ability of people to be seen out of surrounding windows. Also known as passive surveillance (or supervision).

Net Internal Area (NIA)
The usable area within a building measured to the internal face of the perimeter walls at each floor level.

Orthogonal
A type of geometry used to describe the characteristics of an urban block defined by right angles.

Optimising site capacity
A Design-Led Approach guidance, which sets out how the design-led approach, set out in Policy D3 of the Local Plan and in the Development Management Advice Note 2: Optimising development land, should be applied. The approach is the process of setting site-specific design parameters and codes for development sites to provide clarity over the future design. It should be used to determine the most appropriate form of development on a site. Boroughs and neighbourhood planning groups should apply this approach at the local plan making stage to clarify the design aspirations and, for residential applications, determine the indicative site capacity.

Overlooking
A term used to describe the effect when a development or building affords an outlook over adjoining land or property, often causing loss of privacy.

Over shadowing
The effect of a development or building on the amount of sunlight presently enjoyed by a neighbouring property, resulting in a shadow being cast over that neighbouring property.

Parade
A continuous row of shops or commercial units, typically in the town centre. They sometimes have residential accommodation above.

Passive surveillance
Design that increases the occupation and/or visibility of a space to deter crime.

Perimeter block
A perimeter block is an urban form that concentrates the development of a city block along its outermost - or public - edges to strongly define a boundary between public and private or semi-private space. This form is highly efficient by making best use of available land and avoiding surplus spaces that lack clear role of function. The blocks themselves are impermeable but are set within a highly permeable street network.

Permeable
A connected street or pedestrian network with a high frequency of routes that allow easy passage of movement, often associated with fine urban grain patterns. In Newham, this characteristic is associated with Town Centres, Historic Inner Suburbs and Urban Neighbourhoods.

Place
A space in the built environment that has some meaning for people due to the activities and uses which characterise the space, or the quality of the space itself.

Plot
An area of developable land less public open space, primary road infrastructure, and non-developable areas.

Plot ratio
The proportion of a site that is occupied by a building's footprint. The plot ratio of a development is calculated by dividing the a building's footprint by the total area of a site.

Prevailing height
The average or typical building height within an area. Please see **Building height** above.

Primary street
The principle route or main access. Dominant to the secondary street network joining it. Often wider and carrying more significant traffic volumes or a route for public transport.

Public realm
The public realm is any part of a site, area, village, town or city that everyone can use and enjoy, including streets, squares and parks. The public realm is very important for pedestrian movement, as it connects various places and buildings.

Rectilinear
A type of geometry used to describe the characteristics of an urban block defined by straight lines.

Reserved Matters
Outstanding details of the Outline Proposals, which include Access, Appearance, Landscaping, Layout and Scale. The Planning Application seeks approval for the 'Parameters' of the Outline Proposals with matters of detail reserved.

Rewilding
Rewilding is a progressive approach to conservation. It's about letting nature take care of itself, enabling natural processes to shape land and sea, repair damaged ecosystems and restore degraded landscapes. Through rewilding, wildlife's natural rhythms create wilder, more biodiverse habitats.

Rhythm
The repeated pattern of an element such as a building, street or architectural detail.

Roofline
The profile of the top edge of a building.

Roofscape
The appearance of buildings as seen along the skyline, as well as the uses and occupancies as seen from tall buildings.

Roof Form
The type of roof based on its three-dimensional size and shape, often belonging to and characteristic of different typologies. Roof forms can include fat, gabled, hipped, mansard, butterfly, saw-tooth and more.

Scale
Most commonly understood as building height, though scale is relative to another (usually neighbouring) building's height. It can also relate to the size of a building's different elements e.g. massing, fenestration, rather than purely its absolute building height.

Secondary street
Subordinate to the primary street. Often more local routes, within residential areas.

Secured by Design
Secured by Design (SBD) is the official police security initiative that works to improve the security of buildings and their immediate surroundings to provide safe places to live, work, shop and visit. SBD has produced a series of authoritative Design Guides to assist the building, design and construction industry to incorporate security into developments to comply with the Building Regulations and to meet the requirements of SBD.

Setting
The physical (built and landscape), community and economic surroundings in which the development takes place.

Set back
A step-like recess in massing of upper storeys, used where proposed building heights exceed the shoulder height of street. This strategy can preserve the established street width ratio and allow daylight to reach lower storeys.

Storey / number of storeys
Number of storeys is described as the number of floors in the building that have all internal perimeter walls of full floor height. If there is additional accommodation in the roofspace that is created within a pitched or similar style roof, where all perimeter walls are not of full floor height, this would not count as a full storey (see Figure 12.5).

A building containing X number of full storeys with additional accommodation in the roofspace would be called ‘X storeys with rooms in the roofspace’. If there are multiple (Y) floors within the roofspace this would be described as ‘X storeys with rooms in the roofspace contained in Y floors’.

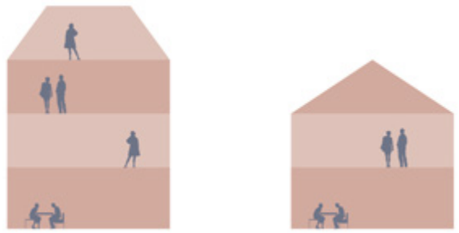


Fig 12.5 3 storey with rooms in the roof (left) and 2 storey (right)

Streetscape
The character of the street environment, existing or proposed.

Street hierarchy
A system of classifying different routes within a movement network. This is principally based on the type and volume of movements a route supports, as well as its characteristics in terms of neighbouring building scale, use and enclosure. The character of a route can change along its length e.g. High Street along an arterial route.

Suburban
An area on the edge of a large town or city, typically residential in character. Suburbs became common in the UK during the 19th and 20th centuries when the development of rail and road transport made commuting viable.

Supplementary Planning Document
Supplementary planning documents (SPDs) should build upon and provide more detailed advice or guidance on policies in an adopted local plan. As they do not form part of the development plan, they cannot introduce new planning policies into the development plan. They are however a material consideration in decision-making. They should not add unnecessarily to the financial burdens on development.

Sustainable Drainage System (SuDS)
Methods of management practices and control structures that are designed to drain surface water in a more sustainable manner than some conventional techniques.

Taller building
Building that exceeds prevailing height of the surrounding area (please see chapter 6.3).

Tertiary street
Subordinate to the primary and secondary street. The most local routes within residential areas.

Traditional development
Directly reflects the local vernacular and historic architectural styles, materials and features.

Transitional development
Seeks to combine elements of traditional and contemporary architectural design.

Townscape
The urban equivalent of landscape: the overall effect of the combination of buildings, changes of level, green spaces, boundary walls, colours and textures, street surfaces, street furniture, uses, scale, enclosure, views etc.

Typology
The classification of buildings into typical and easily recognisable types, based on shared characteristics such as scale, massing, layout, architectural style and period. This organisational device can also apply to urban blocks e.g. Perimeter Block, Free Form Block.

Urban Greening Factor (UGF)
A tool used to evaluate the quality and quantity of natural features proposed as part of a development, such as planting, waterbodies and green roofs, collectively referred to as urban greening. Please refer to Appendix B for further information.

Vernacular
A type of local or regional construction or architectural style based on local needs and using traditional materials and resources from the area where the building is located

Vernacular buildings
The building tradition, usually prior to the industrial revolution, which gives an area its local distinctiveness, through its use of locally sourced materials (stone, timber, clay etc), building types, scale and form. Vernacular patterns of building can be detected in late 19th and early 20th century domestic architecture when the sense of the vernacular was revived, chiefly in the use of plain tile roofs, tile hanging, half timbering and a general informality in building form.

Wayfinding
The process of navigating through and around the development, using spatial and visual clues and/or markers.

Appendix B - Urban greening

13.2.1 **How to calculate the Urban Greening Factor (UGF)**

To calculate the UGF, there are three components that must be known.

- Total area of plot (A)
- Areas of external spaces (B)
- Classification of external spaces (C)

Classifications can be found in the ‘Surface Cover Types and Factor Scores’ table (overleaf) which leads to this general equation:

Sum of (B x C)/A = UGF score

For further information on the Urban Greening Factor calculation please visit here

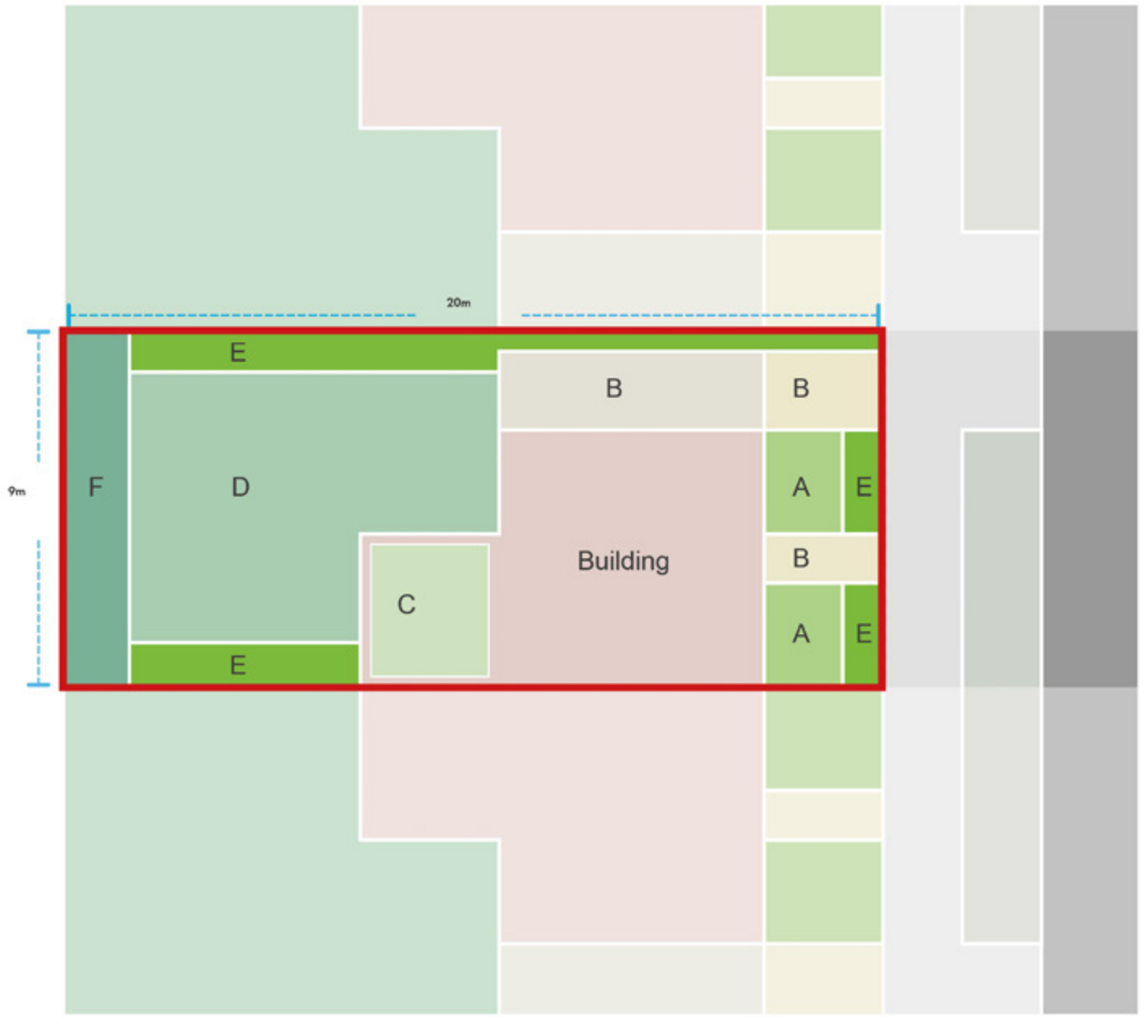


Fig 12.6 Example Urban Greening Factor calculation for a typical semi detached development, generating a UGF score of 0.31.

Factor A = groundcover planting, UGF 0.5, 9m²	A (0.5 x 9) = 4.5
Factor B = permeable paving, UGF 0.1, 24m²	B (0.1 x 24) = 2.4
Factor C = intensive green roof, UGF 0.8, 16m²	C (0.8 x 16) = 12.8
Factor D = amenity grass, UGF 0.4, 56m²	D (0.4 x 56) = 22.4
Factor E = hedges, UGF 0.6, 24m²	E (0.6 x 24) = 14.4
Factor F = tree planting, UGF 0.8, 16m²	F (0.8 x 16) = 12.8
Site area = 0.018 ha / 180m²	**69 / 180 = 0.38**

13.2.2 Surface Cover Types and Factor Scores

This calculator should be used in conjunction with London Plan Guidance 'Urban Greening Factor', 2023.

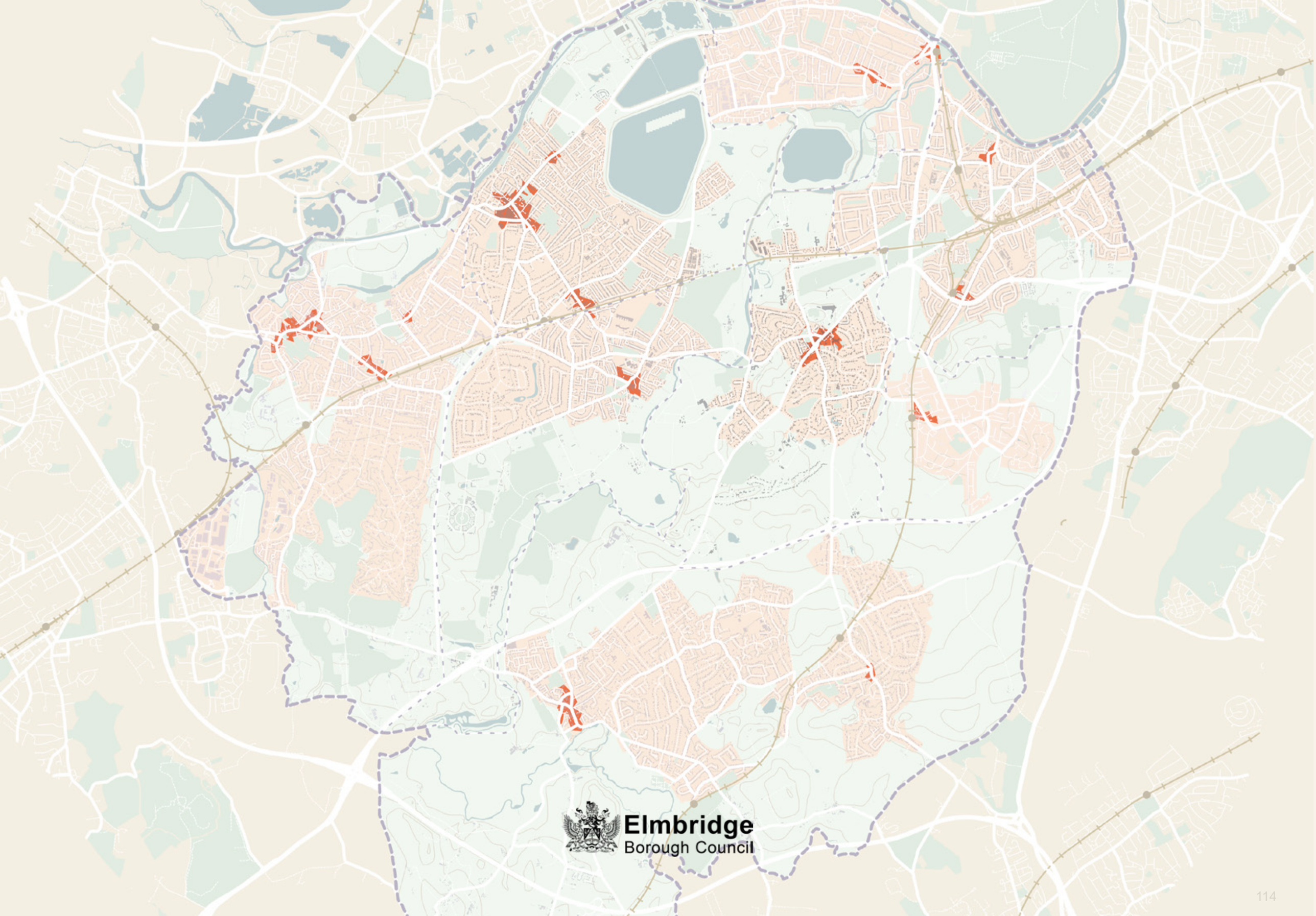
The Urban Greening Factor (UGF) is a tool that evaluates and quantifies the urban greening proposed in new developments. The UGF works by assigning a factor score to each surface cover type proposed in a planning application. Scores range from 1 for semi natural vegetation, through to 0 for impermeable sealed surfaces.

Instructions

- Cells highlighted in yellow should be completed by the applicant;
- Green cover should be categorised in accordance with Appendix 1 of the UGF guidance;
- The notes column should be used to record any assumptions (e.g. how expected tree canopy has been calculated) and to set out which features (e.g. the type of semi-natural habitat) have been included in the appropriate row;
- The calculation table should be copied to UGF drawing to be submitted for planning;
- The UGF should always be calculated on the total site area, equivalent to the red line boundary;
- Adjacent areas of land under the ownership or management of the applicant but not subject to the planning application must not be included; and
- Retained surface cover types should be included in the calculation.

Fig 12.7 Urban Greening Factor Table

URBAN GREENING FACTOR CALCULATOR				
Surface Cover Type	**Factor**	**Area (m²)**	**Contribution**	**Notes**
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1		0	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8		0	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8		0	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7		0	
Flower-rich perennial planting.	0.7		0	
Rain gardens and other vegetated sustainable drainage elements.	0.7		0	
Hedges (line of mature shrubs one or two shrubs wide).	0.6		0	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6		0	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4		0	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2		0	
Permeable paving.	0.1		0	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0		0	
Total contribution			**0**	
Total site area (m²)				
Urban Greening Factor			**0**	


Elmbridge
Borough Council