

Policy D4 Delivering good design

Design analysis and development certainty

- A Masterplans and design codes should be used to help bring forward development and ensure it delivers high quality design and place-making based on the requirements set out in Part B of [Policy D3 Optimising site capacity through the design-led approach](#).
- B Where appropriate, visual, environmental and movement modelling/assessments should be undertaken to analyse potential design options for an area, site or development proposal. These models, particularly 3D virtual reality and other interactive digital models, should, where possible, be used to inform plan-making and decision-taking, and to engage Londoners in the planning process.

Design scrutiny

- C Design and access statements submitted with development proposals should demonstrate that the proposal meets the design requirements of the London Plan.
- D The design of development proposals should be thoroughly scrutinised by borough planning, urban design, and conservation officers, utilising the analytical tools set out in Part B, local evidence, and expert advice where appropriate. In addition, boroughs and applicants should make use of the design review process to assess and inform design options early in the planning process. Development proposals referable to the Mayor must have undergone at least one design review early on in their preparation before a planning application is made, or demonstrate that they have undergone a local borough process of design scrutiny, based on the principles set out in Part E if they:
 - 1) include a residential component that exceeds 350 units per hectare; or
 - 2) propose a building defined as a tall building by the borough (see [Policy D9 Tall buildings](#)), or that is more than 30m in height where there is no local definition of a tall building.

- E The format of design reviews for any development should be agreed with the borough and comply with the Mayor's guidance on review principles, process and management, ensuring that:
- 1) design reviews are carried out transparently by independent experts in relevant disciplines
 - 2) design review comments are mindful of the wider policy context and focus on interpreting policy for the specific scheme
 - 3) where a scheme is reviewed more than once, subsequent design reviews reference and build on the recommendations of previous design reviews
 - 4) design review recommendations are appropriately recorded and communicated to officers and decision makers
 - 5) schemes show how they have considered and addressed the design review recommendations
 - 6) planning decisions demonstrate how design review has been addressed.

Maintaining design quality

- F The design quality of development should be retained through to completion by:
- 1) ensuring maximum detail appropriate for the design stage is provided to avoid the need for later design amendments and to ensure scheme quality is not adversely affected by later decisions on construction, materials, landscaping details or minor alterations to layout or form of the development
 - 2) ensuring the wording of the planning permission, and associated conditions and legal agreement, provide clarity regarding the quality of design
 - 3) avoiding deferring the assessment of the design quality of large elements of a development to the consideration of a planning condition or referred matter
 - 4) local planning authorities considering conditioning the ongoing involvement of the original design team to monitor the design quality of a development through to completion.

- 3.4.1 The processes and actions set out in the policy will help ensure development delivers good design. The responsibility for undertaking a particular process or action will depend on the nature of the development or plan; however, the outcome of this process must ensure the most efficient use of land is made so that the development on all sites is optimised.
- 3.4.2 Applicants will primarily be responsible for undertaking design analysis through the use of various **digital modelling techniques** as part of a wide range of design and presentation techniques. These techniques can also be used as part of the plan-making process to assess growth options and forms of development, as described in Part B of Policy D1 London's form, character and capacity for growth.
- 3.4.3 To enable the design of a proposed development to be fully assessed, applicants must provide the necessary **technical information** in an agreed format. The detail and nature of this should be commensurate with the scale of the development. All outline applications referred to the Mayor should be accompanied by thorough design codes, ensuring exemplary design standards are carried through the planning process to completion.
- 3.4.4 The **Mayor's Design Advocates (MDAs)** will play a key role in helping to deliver good design. They will help champion design across the GLA Group and beyond, through research, design review, capacity building, commissioning and advocacy. MDAs are also members of the London Review Panel, which the Mayor has set up to provide design scrutiny. This review panel is primarily focused on the review of Mayoral investments, but can provide design review sessions for development proposals referred to the Mayor where they have not previously been subject to review, or for schemes of particular significance.
- 3.4.5 All development proposals should be subject to a level of scrutiny appropriate to the scale and/or impact of the project. This **design scrutiny** should include work by planning case officers and ongoing and informal review by qualified urban design officers and conservation officers. Development proposals required to undergo design review as set out under Part D will form a small portion of overall planning applications in London. The Mayor may require that other referable developments undergo design review. Boroughs are encouraged to use design review to support their scrutiny of development proposals.
- 3.4.6 The Mayor has published a **London Quality Review Charter**, with accompanying guidance. The Charter promotes a consistent approach across London's design review sector and promotes transparency of process. The Charter builds on

the established 2013 guidance²⁷ which calls for reviews to be independent, expert, multidisciplinary, accountable, transparent, proportionate, timely, advisory, objective and available. The Charter includes guidance on how panels and processes should be managed and records kept. It also clarifies that the purpose of the design review process is not to dictate the design of a scheme or contradict planning policy, but to guide better design outcomes. More widely, the Mayor's Good Growth by Design Programme, is developing a support offer to London's boroughs and London's review sector, for example, offering advice to boroughs wishing to put in place a design review function.

- 3.4.7 The **scrutiny** of a proposed development's design should cover its layout, scale, height, density, land uses, materials, architectural treatment, detailing and landscaping. The design and access statement should explain the approach taken to these design issues (see also requirements of Policy D5 Inclusive design).
- 3.4.8 For **residential development** it is particularly important to scrutinise the qualitative aspects of the development design described in Policy D6 Housing quality and standards. The higher the density of a development the greater this scrutiny should be of the proposed built form, massing, site layout, external spaces, internal design and ongoing management. This is important because these elements of the development come under more pressure as the density increases. The housing minimum space standards set out in Policy D6 Housing quality and standards help ensure that as densities increase, quality of internal residential units is maintained.
- 3.4.9 **Higher density residential developments**²⁸ should demonstrate their on-going sustainability in terms of servicing, maintenance and management. Specifically, details should be provided of day-to-day servicing and deliveries, longer-term maintenance implications and the long-term affordability of running costs and service charges (by different types of occupiers).
- 3.4.10 It is important that **design quality is maintained throughout the development process** from the granting of planning permission to completion of a development. What happens to a design after planning consent can be instrumental to the success of a project and subsequent quality of a place. Changes to designs after the initial planning permission has been granted are

²⁷ Design Review Principles and Practice, The Design Council, et al, 2013, available at: https://www.designcouncil.org.uk/sites/default/files/asset/document/DC%20Cabe%20Design%20Review%2013_W_0.pdf

²⁸ Higher density residential developments are those with a density of at least 350 units per hectare

often allowable as minor amendments, or in the case of outline applications in the form of additional necessary detail. However, even minor changes can have a substantial effect on design quality, environmental quality and visual impact. The cumulative effect of amendments can often be significant and should be reviewed holistically. Sufficient design detail needs to be provided in approved drawings and other visual material, as well as in the wording of planning permissions to ensure clarity over what design has been approved, and to avoid future amendments and value engineering resulting in changes that would be detrimental to the design quality.

- 3.4.11 **Design codes** submitted with outline planning applications for large developments can be one such way to ensure that design quality is upheld throughout the planning process. Their main purpose is to describe the key design principles of a development proposal in a simple, concise and mainly graphical format, and they should draw on the proposal's layout, massing and heights to define the principal features that make up the overall design integrity of the scheme. Assessment of the design of large elements of a development, such as landscaping or building façades, should be undertaken as part of assessing the whole development and not deferred for consideration after planning permission has been granted.
- 3.4.12 Having a sufficient level of design information, including key construction details provided as part of the application, can help to ensure that the quality of design will be maintained if the permitted scheme is subject to subsequent minor amendments. However, it is also generally beneficial to the design quality of a completed development if the **architectural design team is involved in the development from start to finish**²⁹. Securing the design team's ongoing involvement can be achieved in a number of ways, such as through a condition of planning permission, as a design reviewer, or through an architect retention clause in a legal agreement.

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Shaping London: How can London deliver good growth?, Mayor's Design Advisory Group, 2016



Policy D5 Inclusive design

- A Boroughs, in preparing their Development Plans, should support the creation of inclusive neighbourhoods by embedding inclusive design, and collaborating with local communities in the development of planning policies that affect them.
- B Development proposal should achieve the highest standards of accessible and inclusive design. They should:
 - 1) be designed taking into account London's diverse population
 - 2) provide high quality people focused spaces that are designed to facilitate social interaction and inclusion
 - 3) be convenient and welcoming with no disabling barriers, providing independent access without additional undue effort, separation or special treatment
 - 4) be able to be entered, used and exited safely, easily and with dignity for all
 - 5) be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.
- C Design and Access Statements, submitted as part of development proposals, should include an inclusive design statement.

- 3.5.1 The built environment includes the internal and external parts of buildings, as well as the spaces in between them. Despite recent progress in building a more accessible city, too many Londoners still experience barriers to living independent and dignified lives, due to the way the built environment has been designed and constructed or how it is managed. An **inclusive design approach** helps to ensure the diverse needs of all Londoners are integrated into Development Plans and proposals from the outset. This is essential to ensuring that the built environment is safe, accessible and convenient, and enables everyone to access the opportunities London has to offer.
- 3.5.2 **Inclusive design is indivisible from good design.** It is therefore essential to consider inclusive design and the development's contribution to the creation of inclusive neighbourhoods at the earliest possible stage in the development

process – from initial conception through to completion and, where relevant, the occupation and on-going management and maintenance of the development.

- 3.5.3 Inclusive design principles should be discussed with boroughs in advance of an application being submitted, to ensure that these principles are understood and incorporated into the original design concept. To demonstrate this, and to inform decision making, speed up the process and bring about better-quality development, an **inclusive design statement** is required as part of the Design and Access Statement. The inclusive design statement should:
- explain the design concept and illustrate how an inclusive design approach has been incorporated into this
 - detail what best practice standards and design guidance documents have been applied in terms of inclusive design
 - show that the potential impacts of the proposal on people and communities who share a protected characteristic and who will be affected by it have been considered
 - set out how access and inclusion will be maintained and managed, including fire evacuation procedures
 - detail engagement with relevant user groups, such as disabled or older people's organisations, or other equality groups.
- 3.5.4 The detail contained in the Design and Access Statements, including the inclusive design statement, should be proportionate to the scale and type of development.
- 3.5.5 The social factors that influence inclusion have a direct impact on well-being and are an important component in achieving more inclusive communities. Many factors that influence potential barriers to inclusion can be mitigated **by ensuring the involvement of local communities** in the planning policies and decisions that will affect them.
- 3.5.6 Inclusive design creates spaces and places that can facilitate social integration, enabling people to lead more interconnected lives. Development proposals should help to create **inclusive neighbourhoods** that cumulatively form a network in which people can live and work in a safe, healthy, supportive and inclusive environment. An inclusive neighbourhood approach will ensure that people are able to easily access services, facilities and amenities that are relevant to them and enable them to safely and easily move around by active travel modes through high-quality, people-focused spaces, while enjoying barrier-free access to surrounding areas and the wider city.

- 3.5.7 **Links to the wider neighbourhood** should be carefully considered, including networks of legible, logical, safe and navigable pedestrian routes, dropped kerbs and crossing points with associated tactile paving.
- 3.5.8 Where **security measures** are required in the external environment, the design and positioning of these should not adversely impact access and inclusion.
- 3.5.9 **Entrances** into buildings should be easily identifiable and should allow everyone to use them independently without additional effort, separation or special treatment. High and low level obstructions in buildings and in the public realm should be eliminated. The **internal environment** of developments should meet the highest standards in terms of access and inclusion, creating buildings which meet the needs of the existing and future population.
- 3.5.10 Buildings should be designed and built to accommodate robust **emergency evacuation** procedures for all building users, including those who require level access. All building users should be able to evacuate from a building with dignity and by as independent means as possible. Emergency carry down or carry up mechanical devices or similar interventions that rely on manual handling are not considered to be appropriate, for reasons of user dignity and independence. The installation of lifts which can be used for evacuation purposes (accompanied by a management plan) provide a dignified and more independent solution. The fire evacuation lifts and associated provisions should be appropriately designed, constructed and include the necessary controls suitable for the purposes intended. See also [Policy D12 Fire safety](#).
- 3.5.11 When dealing with **historic buildings and heritage assets**, careful consideration should be given to inclusive design at an early stage. This is essential to securing successful schemes that will enable as many people as possible to access and enjoy the historic environment now and in the future.
- 3.5.12 The Mayor will assist boroughs and other agencies in implementing an inclusive design approach by providing **further guidance** where necessary, continuing to contribute to the development of national technical standards and supporting training and professional development programmes. Further guidance on inclusive design standards can be found in the following British Standard documents:
- BS8300-1:2018 Design of an accessible and inclusive built environment. External environment. Code of practice. January 2018.
 - BS8300-2:2018 Design of an accessible and inclusive built environment. Buildings. Code of practice. January 2018.

Policy D6 Housing quality and standards

- A Housing development should be of high quality design and provide adequately-sized rooms (see [Table 3.1](#)) with comfortable and functional layouts which are fit for purpose and meet the needs of Londoners without differentiating between tenures.
- B Qualitative aspects of a development are key to ensuring successful sustainable housing. [Table 3.2](#) sets out key qualitative aspects which should be addressed in the design of housing developments.
- C Housing development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to meet the requirements of Part B in [Policy D3 Optimising site capacity through the design-led approach](#) than a dual aspect dwelling, and it can be demonstrated that it will have adequate passive ventilation, daylight and privacy, and avoid overheating.
- D The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space.
- E Housing should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) and food waste as well as residual waste.
- F Housing developments are required to meet the minimum standards below which apply to all tenures and all residential accommodation that is self-contained.

Private internal space

- 1) Dwellings must provide at least the gross internal floor area and built-in storage area set out in [Table 3.1](#).
- 2) A dwelling with two or more bedspaces must have at least one double (or twin) bedroom that is at least 2.75m wide. Every other additional double (or twin) bedroom must be at least 2.55m wide.

- 3) A one bedspace single bedroom must have a floor area of at least 7.5 sq.m. and be at least 2.15m wide.
- 4) A two bedspace double (or twin) bedroom must have a floor area of at least 11.5 sq.m..
- 5) Any area with a headroom of less than 1.5m is not counted within the Gross Internal Area unless used solely for storage (If the area under the stairs is to be used for storage, assume a general floor area of 1 sq.m. within the Gross Internal Area).
- 6) Any other area that is used solely for storage and has a headroom of 0.9-1.5m (such as under eaves) can only be counted up to 50 per cent of its floor area, and any area lower than 0.9m is not counted at all.
- 7) A built-in wardrobe counts towards the Gross Internal Area and bedroom floor area requirements, but should not reduce the effective width of the room below the minimum widths set out above. Any built-in area in excess of 0.72 sq.m. in a double bedroom and 0.36 sq.m. in a single bedroom counts towards the built-in storage requirement.
- 8) The minimum floor to ceiling height must be 2.5m for at least 75 per cent of the Gross Internal Area of each dwelling.

Private outside space

- 9) Where there are no higher local standards in the borough Development Plan Documents, a minimum of 5 sq.m. of private outdoor space should be provided for 1-2 person dwellings and an extra 1 sq.m. should be provided for each additional occupant, and it must achieve a minimum depth and width of 1.5m. This does not count towards the minimum Gross Internal Area space standards required in [Table 3.1](#)

G The Mayor will produce guidance on the implementation of this policy for all housing tenures.

Table 3.1 - Minimum internal space standards for new dwellings^

Type of dwelling		Minimum gross internal floor areas ⁺ and storage (square metres)			
Number of bedrooms (b)	Number of bed spaces (persons(p))	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39 (37) *	N/A	N/A	1
	2p	50	58	N/A	1.5
2b	3p	61	70	N/A	2
	4p	70	79	N/A	2
3b	4p	74	84	90	2.5
	5p	86	93	99	2.5
	6p	95	102	108	2.5
4b	5p	90	97	103	3
	6p	99	106	112	3
	7p	108	115	121	3
	8p	117	124	130	3
5b	6p	103	110	116	3.5
	7p	112	119	125	3.5
	8p	121	128	134	3.5
6b	7p	116	123	129	4
	8p	125	132	138	4

Notes to Table 3.1**Key**

b: bedrooms

p: persons

[^] New dwelling in this context includes new build, conversions and change of use.^{*} Where a studio / one single bedroom one person dwelling has a shower room instead of a bathroom, the floor area may be reduced from 39 sq.m. to 37 sq.m., as shown bracketed.

* The Gross Internal Area (GIA) of a dwelling is defined as the total floor space measured between the internal faces of perimeter walls that enclose a dwelling. This includes partitions, structural elements, cupboards, ducts, flights of stairs and voids above stairs. GIA should be measured and denoted in square metres (sq.m.).

Built-in storage areas are included within the overall GIA and include an allowance of 0.5 sq.m. for fixed services or equipment such as a hot water cylinder, boiler or heat exchanger.

GIAs for one storey dwellings include enough space for one bathroom and one additional WC (or shower room) in dwellings with five or more bedspaces. GIAs for two and three storey dwellings include enough space for one bathroom and one additional WC (or shower room). Additional sanitary facilities may be included without increasing the GIA, provided that all aspects of the space standard have been met.

- 3.6.1 Housing can be delivered in different physical forms depending on the context and site characteristics. Ensuring homes are of adequate size and fit for purpose is crucial in an increasingly dense city; therefore this Plan sets out **minimum space standards** for dwellings of different sizes in [Policy D6 Housing quality and standards](#) and [Table 3.1](#). This is based on the minimum gross internal floor area (GIA) relative to the number of occupants and takes into account commonly required furniture and the spaces needed for different activities and moving around. This means applicants should state the number of bedspaces/occupiers a home is designed to accommodate rather than simply the number of bedrooms. When designing homes for more than eight bedspaces, applicants should allow approximately 10 sq.m. per extra bedspace.
- 3.6.2 The space standards are minimums which applicants are encouraged to exceed. The **standards apply to all new self-contained dwellings** of any tenure, and consideration should be given to the elements that enable a home to become a comfortable place of retreat. The provision of additional services and spaces as part of a housing development, such as building management and communal amenity space, is not a justification for failing to deliver these minimum standards. Boroughs are, however, encouraged to resist dwellings with floor areas significantly above those set out in [Table 3.1](#) for the number of bedspaces they contain due to the level of housing need and the need to make efficient use of land.
- 3.6.3 To address the impacts of the urban heat island effect and the fact that the majority of housing developments in London are made up of flats, a **minimum ceiling height** of 2.5m for at least 75 per cent of the gross internal area is required so that new housing is of adequate quality, especially in terms of daylight penetration, ventilation and cooling, and sense of space. The height

of ceilings, doorways and other thresholds should support the creation of an inclusive environment and therefore be sufficiently high to not cause an obstruction. To allow for some essential equipment in the ceilings of kitchens and bathrooms, up to 25 per cent of the gross internal area of the dwelling can be lower than 2.5 m. However, any reduction in ceiling height below 2.5 m should be the minimum necessary for this equipment, and not cause an obstruction.

- 3.6.4 **Dual aspect dwellings** with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods, natural cross-ventilation, a greater capacity to address overheating, pollution mitigation, a choice of views, access to a quiet side of the building, greater flexibility in the use of rooms, and more potential for future adaptability by altering the use of rooms.
- 3.6.5 **Single aspect dwellings** are more difficult to ventilate naturally and are more likely to overheat, and therefore should normally be avoided. Single aspect dwellings that are north facing, contain three or more bedrooms or are exposed to noise levels above which significant adverse effects on health and quality of life occur, should be avoided. The design of single aspect dwellings must demonstrate that all habitable rooms and the kitchen are provided with adequate passive ventilation, privacy and daylight, and that the orientation enhances amenity, including views. It must also demonstrate how they will avoid overheating without reliance on energy intensive mechanical cooling systems.
- 3.6.6 A variety of approaches to housing typologies and **layout of buildings** should be explored to make the best use of land and create high quality, comfortable and attractive homes. For example, increasing ceiling heights and having bay windows can optimise daylight and sunlight and allow buildings to be closer together than can otherwise be achieved.
- 3.6.7 Housing developments should be designed to **maximise tenure integration**, and affordable housing units should have the same external appearance as private housing. All entrances will need to be well integrated with the rest of the development and should be indistinguishable from each other.
- 3.6.8 Development should help create a more socially inclusive London. **Gated forms of development** that could realistically be provided as a public street are unacceptable and alternative means of security should be achieved through utilising the principles of good urban design and inclusive design (see [Policy D5 Inclusive design](#)).
- 3.6.9 **Private outside space** should be practical in terms of its shape and utility, and care should be taken to ensure the space offers good amenity. All dwellings should have level access to one or more of the following forms of private outside spaces: a garden, terrace, roof garden, courtyard garden or balcony. The use of

roof areas, including podiums, and courtyards for additional private or shared outside space is encouraged.

- 3.6.10 **Communal play space** should meet the requirements of [Policy S4 Play and informal recreation](#).

Table 3.2 - Qualitative design aspects to be addressed in housing developments

Layout, orientation and form	
i	The built form, massing and height of the development should be appropriate for the surrounding context, and it should be shown that alternative arrangements to accommodate the same number of units or bedspaces with a different relationship to the surrounding context have been explored early in the design process (making use of the measures in paragraph 3.3.23), particularly where a proposal is above the applicable density indicated in Part D of Policy D4 Delivering good design
ii	The layout of the scheme (including spaces between and around buildings) should: • form a coherent, legible and navigable pattern of streets and blocks • engender street based activity and provide a sense of safety • maximise active frontages onto public facing sides of a development, where appropriate wrapping around inactive frontages
iii	The site layout, orientation and design of individual dwellings and, where applicable, common spaces should: • provide privacy and adequate daylight for residents • be orientated to optimise opportunities for visual interest through a range of immediate and longer range views, with the views from individual dwellings considered at an early design stage • provide clear and convenient routes with a feeling of safety • help reduce noise from common areas to individual dwellings • help meet the challenges of a changing climate by ensuring homes are suitable for warmer summers and wetter winters

Outside space	
iv	Communal outside amenity spaces should: • provide sufficient space to meet the requirements of the number of residents • be designed to be easily accessed from all related dwellings • be located to be appreciated from the inside • be positioned to allow overlooking • be designed to support an appropriate balance of informal social activity and play opportunities for various age groups • meet the changing and diverse needs of different occupiers
v	Private amenity space for each dwelling should be usable and have a balance of openness and protection, appropriate for its outlook and orientation
Usability and ongoing maintenance	
vi	The development should ensure that: • the experience of arrival, via footpaths, entrances and shared circulation spaces is comfortable, accessible and fit for purpose • features are designed to allow maintenance activities such as window cleaning, to be undertaken with ease • sufficient levels of secure, covered and conveniently located externally accessible storage is provided for deliveries and other bulky items • recycling and waste disposal, storage and any on site management facilities are convenient in their operation and location, appropriately integrated, and designed to work effectively for residents, management and collection services*

* See also the London Waste and Recycling Board's Waste Management Planning Advice for New Flatted Properties 2014. <http://www.lwarb.gov.uk/what-we-do/resource-london/successes-to-date/efficiencies-programme-outputs/>

3.6.11 Other components of housing design are also important to improving the attractiveness of new homes as well as the Mayor's wider objectives to improve the quality of Londoners' environment. The Mayor intends to produce a single **guidance** document which clearly sets out the standards which need to be met in order to implement Policy D6 Housing quality and standards for all housing tenures, as well as wider qualitative aspects of housing developments. This will include guidance on daylight and sunlight standards. This will build on the guidance set out in the 2016 Housing SPG and the previous London Housing Design Guide.