

Camden Planning Guidance

Design

London Borough of Camden

CPG **1**



July 2015

CPG1 Design

1	Introduction.....	5
2	Design excellence	9
3	Heritage.....	15
4	Extensions, alterations and conservatories.....	25
5	Roofs, terraces and balconies	35
6	Landscape design and trees.....	45
7	Shopfronts.....	57
8	Advertisements, signs and hoardings	73
9	Designing safer environments	79
10	Recycling and Waste Storage	89
11	Building services equipment.....	97
12	Artworks, statues and memorials.....	101

1 Introduction

What is Camden Planning Guidance?

- 1.1 We have prepared this Camden Planning Guidance to support the policies in our Local Development Framework (LDF). This guidance is therefore consistent with the Core Strategy and the Development Policies, and forms a Supplementary Planning Document (SPD) which is an additional “material consideration” in planning decisions. The Council adopted CPG1 Design on 6 April 2011 following statutory consultation. This document was updated in 2013 to include Section 12 on artworks, statues and memorials, and updated in 2015 to revise the guidance for recycling and waste storage. Details on these updates and the consultation process are available at camden.gov.uk/cpg.
- 1.2 The Camden Planning Guidance covers a range of topics (such as housing, sustainability, amenity and planning obligations) and so all of the sections should be read in conjunction, and within the context of Camden’s LDF.

Design in Camden

- 1.3 Camden has many attractive and historic neighbourhoods as well as both traditional and modern buildings of the highest quality. These are a significant reason that the borough is such a popular place to live, work and visit. As well as conserving our rich heritage we should also contribute towards it by ensuring that we create equally high quality buildings and spaces which will be appreciated by future generations.
- 1.4 This objective of achieving high quality design does not just concern new development or large-scale schemes, but also includes the replacement, extension or conversion of existing buildings. The detailed guidance contained within this section therefore considers a range of design-related issues for both residential and commercial property and the spaces around them.



What does this guidance cover?

1.5 This guidance provides information on all types of detailed design issues within the borough and includes the following sections:

1. Introduction
2. Design excellence
3. Heritage
4. Extensions, alterations and conservatories
5. Roofs, terraces and balconies
6. Landscape design and trees
7. Shopfronts
8. Advertisements, signs and hoardings
9. Designing safer environments
10. Waste recyclables storage
11. Building services equipment
12. Artworks, statues and memorials

1.6 This guidance supports the following Local Development Framework policies:

Core Strategy

- CS14 Promoting high quality places and conserving our heritage
- CS15 Protecting and improving our parks and open spaces & encouraging biodiversity
- CS17 Making Camden a safer place
- CS18 Dealing with our waste and encouraging recycling

Development Policies

- DP24 Securing high quality design
- DP25 Conserving Camden's heritage
- DP27 Basements and lightwells
- DP29 Improving access
- DP30 Shopfronts

1.7 It should be noted that the guidance covered in this section only forms part of the range of considerations that you should address when proposing new development. In addition to these specific design matters you should also consider wider issues such as cycle storage, residential space standards, wheelchair housing, designing in sustainability measures and impacts on neighbours. Further guidance on these, and other issues, is contained within the Local Development Framework documents and the Camden Planning Guidance.

2 Design excellence

KEY MESSAGES

Camden is committed to excellence in design and schemes should consider:

- The context of a development and its surrounding area;
- The design of the building itself;
- The use of the building;
- The materials used; and
- Public spaces.

- 2.1 High quality design makes a significant contribution to the success of a development and the community in which it is located. Design of the built environment affects many things about the way we use spaces and interact with each other, comfort and enjoyment, safety and security and our sense of inclusion.
- 2.2 The purpose of this guidance is to promote design excellence and to outline the ways in which you can achieve high quality design within your development.
- 2.3 This guidance primarily relates to Core Strategy Policy CS14 Promoting high quality places and conserving our heritage and Development Policies DP24 Securing high quality design.



When does this apply?

- 2.4 This guidance applies equally to all development, whether new build, converted, refurbished, extended and altered development. However, the implications for a proposal will vary greatly depending on the nature of the site, the proposed use, the scale of development, its interaction with surrounding sites, and existing buildings and structures on the site.

- 2.5 Other sections in this Camden Planning Guidance (CPG) relate to specific types of developments and relevant design matters, for example advertisements, signs and hoardings, designing safer environments, extensions, alterations and conversions, heritage and shopfronts.

General guidance on design

- 2.6 Camden is committed to excellence in design. The borough contains many special and unique places, many of which are protected by conservation area status. In accordance with draft London Plan policies 7.1–7.7, Core Strategy policy CS14 requires development schemes to improve the quality of buildings, landscaping and public spaces and we will not approve design which is inappropriate to its context or fails to improve the character of an area.
- 2.7 We are working with our partners to promote design excellence and improve public buildings, landscaping and the street environment. We have established the Camden Design Initiative which seeks to encourage involvement, awareness and understanding of good design and this is promoted through the bi-annual Camden Design Awards which acknowledge high quality and innovative design. We are also a promoter of the national Civic Trust Awards which are awarded to buildings judged to have made a positive cultural, social or economic contribution to the local community.
- 2.8 In order to achieve high quality design in the borough we require applicants to consider buildings in terms of context, height, accessibility, orientation, siting, detailing and materials. These issues apply to all aspects of the development, including buildings and other structures (e.g. substations, refuse or cycle storage), outdoor spaces, landscaping and access points and should be considered at an early stage in the design of a development, as these elements are often difficult to change in later stages.



Context

2.9 Good design should:

- positively enhance the character, history, archaeology and nature of existing buildings on the site and other buildings immediately adjacent and in the surrounding area, and any strategic or local views. This is particularly important in conservation areas;
- respect, and be sensitive to, natural and physical features, both on and off the site. Features to be considered include, but are not limited to: slope and topography, vegetation, biodiversity, habitats, waterways and drainage, wind, sunlight and shade, and local pollutant sources. Movement of earth to, from and around the site should be minimised to prevent flood risk, land instability and unnecessary transport of aggregates, especially by road; and
- consider connectivity to, from, around and through the site for people using all modes of transport, including pedestrians, cyclists, wheelchair users, those with visual impairments, people with pushchairs, and motorised vehicles.

Building design

2.10 Good design should:

- ensure buildings do not significantly overshadow existing/proposed outdoor spaces (especially designated open spaces), amenity areas or existing or approved renewable energy facilities (such as solar panels). For further information, refer to CPG3 Sustainability Renewable energy (A shadowing exercise may be required for tall buildings or where they are near open spaces);
- consider the extent to which developments may overlook the windows or private garden area of another dwelling;
- consider views, both local and London wide, and particularly where the site is within a recognised strategic viewing corridor (as shown on the policy Proposals Map);
- consider the degree of openness of an area and of open spaces, including gardens including views in and out of these spaces
- contributions to the character of certain parts of the borough;
- provide visual interest for onlookers, from all aspects and distances. This will involve attention to be given to both form and detail;
- consider opportunities for overlooking of the street and, where appropriate, provide windows, doors and other 'active' features at ground floor; and
- incorporate external facilities such as renewable energy installations, access ramps, plant and machinery, waste storage facilities and shading devices into the design of the development. Careful consideration must be given to ensure that the facility does not harm the built environment.

Land use

- 2.11 The use of a building should:
- take into account the proposed use, and the needs of the expected occupants of the buildings and other users of the site and development; and
 - provide clear indication of the use of the building. It is noted, however, that reuse of existing buildings, as well as the accommodation of possible future changes of use, can make this difficult.

Materials

- 2.12 Materials should form an integral part of the design process and should relate to the character and appearance of the area, particularly in conservation areas or within the setting of listed buildings. The durability of materials and understanding of how they will weather should be taken into consideration. The quality of a well designed building can be easily reduced by the use of poor quality or an unsympathetic palette of materials. We will encourage re-used and recycled materials, however these should be laid to ensure a suitable level accessible surface is provided. Further guidance is contained within CPG3 Sustainability (Sustainable use of materials).

Tall buildings

- 2.13 Tall buildings in Camden (i.e. those which are substantially taller than their neighbours and/or which significantly change the skyline) will be assessed against a range of design issues, including:
- how the building relates to its surroundings, both in terms of how the base of the building fits in with the streetscape, and how the top of a tall building affects the skyline;
 - the contribution a building makes to pedestrian permeability and improved public accessibility;
 - the relationship between the building and hills and views;
 - the degree to which the building overshadows public spaces, especially open spaces and watercourses; and
 - the historic context of the building's surroundings.
- 2.14 In addition to these design considerations tall buildings will be assessed against a range of other relevant policies concerning amenity, mixed use and sustainability. Reference should be made to this CPG (Heritage chapter), CPG3 Sustainability (Climate change adaptation chapter) and CPG6 Protecting and improving quality of life (Overlooking and privacy and Wind/microclimate chapters).
- 2.15 Where a proposal includes a development that creates a landmark or visual statement, particular care must be taken to ensure that the location is appropriate (such as a particular destination within a townscape, or a particular functional node) and that the development is sensitive to its wider context. This will be especially important where the

development is likely to impact upon heritage assets and their settings (including protected views).

- 2.16 Design should consider safety and access. Guidance on these issues is contained within this CPG (Designing safer environments chapter) and CPG4 Protecting and improving quality of life (Access for all chapter). Schemes over 90m should be referred to the Civil Aviation Authority.

Design of public space

- 2.17 The design of public spaces, and the materials used, is very important. The size, layout and materials used in the spaces around buildings will influence how people use them, and help to create spaces that are welcoming, attractive, accessible, safe and useful. They can also contribute to other objectives such as reducing the impact of climate change (e.g. the use of trees and planters to reduce run-off and provide shading), biodiversity, local food production and Sustainable Urban Drainage Systems (SUDs), and provide useful amenity space. In Conservation Areas there may be particular traditional approaches to landscaping/boundary treatments that should be respected in new designs.
- 2.18 The spaces around new developments should be considered at the same time as the developments themselves and hard / soft landscaping and boundary treatments should be considered as part of wider cohesive design. The landscaping and trees chapter in this CPG, and individual Conservation Area Appraisals, provide further guidance on this issue.
- 2.19 Public art can be a catalyst for improved environmental quality by upgrading and animating public space and enhancing local character and identity through helping create a sense of place. The Council will therefore encourage the provision of art and decorative features as an integral part of public spaces, where they are appropriate to their location and enhance the character and environment.
- 2.20 It is important that public spaces and streets are maintained to a high standard and so, in line with the Local Implementation Plan, the Council will continue to undertake public space enhancement works through specifically targeted programmes. The Designing safer environments chapter in this CPG provides more detailed guidance on the incorporation of safety and security considerations in public spaces.

Design and access statements

- 2.21 Design and Access Statements are documents that explain the design ideas and rationale behind a scheme. They should show that you have thought carefully about how everyone, including disabled people, older people and children, will be able to use the places you want to build.
- 2.22 Design and Access Statements should include a written description and justification of the planning application and sometimes photos, maps and drawings may be useful to further illustrate the points made. The length

and detail of a Design and Access Statement should be related to the related to the size and complexity of the scheme. A statement for a major development is likely to be much longer than one for a small scheme.

- 2.23 Design and Access Statements are required to accompany all planning, conservation and listed building applications, except in certain circumstances as set out on our website www.camden.gov.uk/planning. Our website also provides a template for Design and Access Statements and lists the information that each statement should contain. Further guidance on Access Statements is provided in CPG4 Protecting and improving quality of life (Access for all chapter).

Further information

General	By Design: Urban Design in the Planning System – Towards Better Practice, DETR/CABE, 2000 Design and Access Statements; how to read, write and use them, CABE, 2007
Tall Buildings	Guidance on tall buildings, English Heritage/CABE, 2007
Historic Environment	Understanding Place: conservation areas designation, appraisal and management (2011) Building in Context, English Heritage/CABE, 2002. Seeing History in the View (2011) Good Practice Advice 3- Settings and Views (2015)
Other	Royal Institute of Chartered Surveyors (RICS); and Royal Institute of British Architects (RIBA).

3 Heritage

KEY MESSAGES

Camden has a rich architectural heritage and we have a responsibility to preserve, and where possible, enhance these areas and buildings.

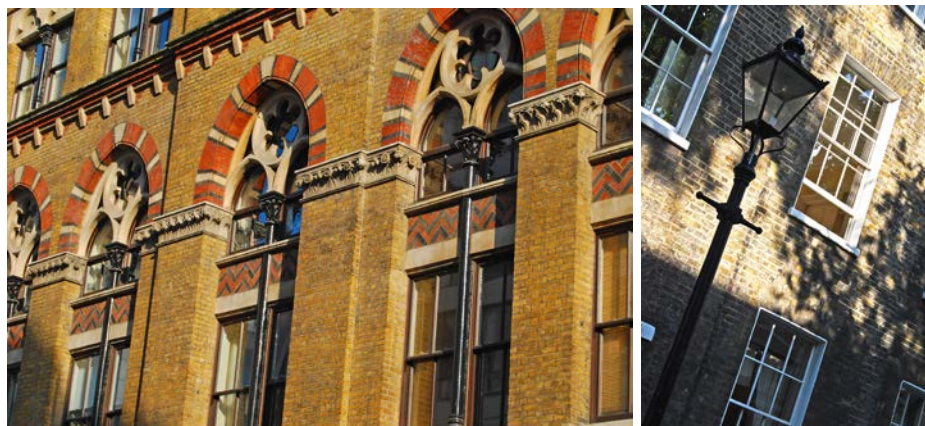
- We will only permit development within conservation areas that preserves and enhances the character and appearance of the area
- Our conservation area statements, appraisals and management plans contain more information on all the conservation areas
- Most works to alter a listed building are likely to require listed building consent
- Historic buildings can and should address sustainability and accessibility

3.1 This section provides guidance on our identified heritage assets (which include conservation areas, listed buildings and registered parks and gardens), including what they area and the implications of their status and designation. This section also sets out details on how historic buildings can address sustainability.

3.2 This section sets out further guidance on how we will apply Core Strategy Policy CS14 Promoting high quality places and conserving our heritage and Development Policy DP25 Conserving Camden's Heritage.

When does this apply?

3.3 This guidance applies to all applications which may affect any element of the historic environment and therefore may require planning permission, or conservation area or listed building consent.

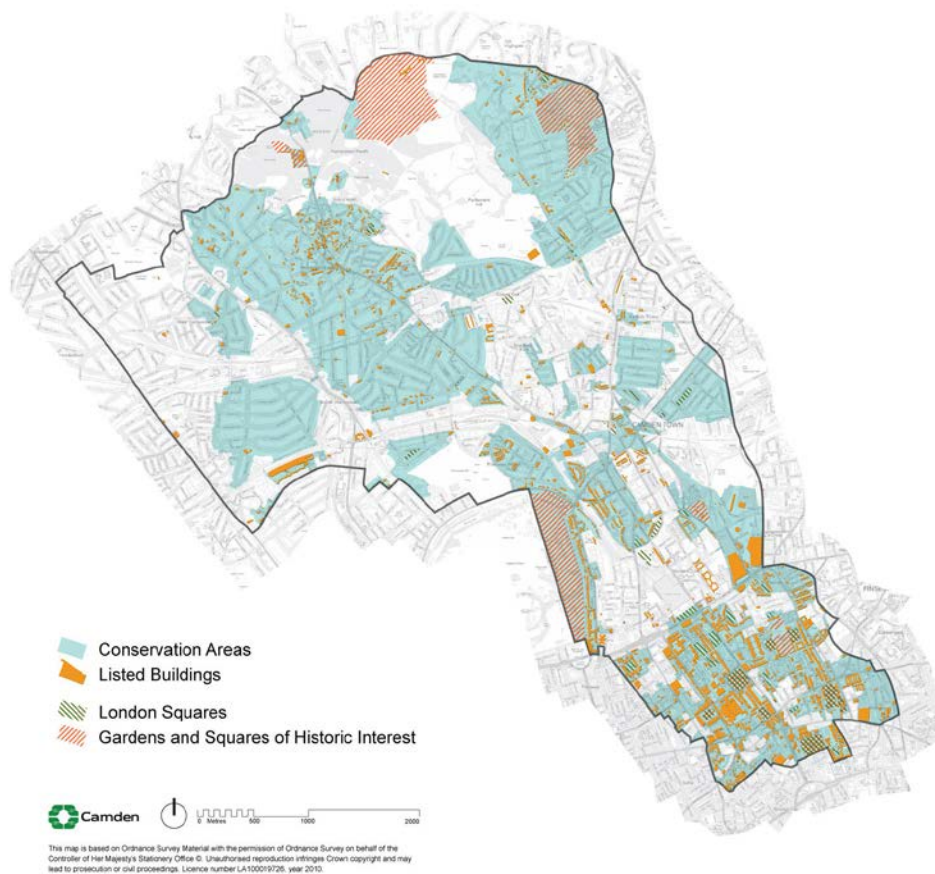


Conservation Areas

What is a conservation area?

- 3.4 A conservation area is defined in the Planning (Listed Buildings and Conservation Areas) Act 1990 as an area of special architectural or historic interest, the character or appearance of which it is desirable to preserve and, where possible, enhance. PPS5 identifies conservation areas as “heritage assets” and requires that proposals in conservation areas are assessed for their impacts on their historic significance. There are 39 conservation areas in Camden, which vary greatly in appearance, size, character and style and these are identified on the LDF Proposals Map.

Figure 1. Conservation Areas



- 3.5 Conservation area designation is a way to recognise the importance of the quality of an area as a whole, as well as giving some protection to individual buildings within it. Conservation areas are not designated to stop all future development or change but to ensure that change is managed to conserve the historic significance of the area as a whole.
- 3.6 Conservation area designation is shown on the proposals map and further information on heritage is available on the 'Conservation and Design' section of the Council's website www.camden.gov.uk and on English Heritage's website www.english-heritage.org.uk.

Effects of conservation area status

- 3.7 We will only permit development within conservation areas, and development affecting the setting of conservation areas, that preserves and enhances the character and appearance of the area (see Planning Policy Statement 5 (PPS5), policy HE8).
- 3.8 The Council has greater control over building work in conservation areas, including demolition, materials and detailed design. Planning permission may be required for alterations or extensions that would not normally need planning permission elsewhere, such as minor roof

alterations, dormer windows, renewable energy installations or installation of a satellite dish.

Renewable energy technology

Renewable energy technologies generate energy from natural resources such as sunlight, wind, rain and heat in the ground, which are naturally replenished.

Demolition in conservation areas

- 3.9 Conservation Area Consent is required to demolish or substantially demolish a building over 115 cubic metres or a structure such as a wall over 1 metre high that adjoins a highway, or more than 2 metres high elsewhere. When determining your application we will follow the guidance in PPS5, Core Strategy policy CS14 and Development Policy DP24 as well as that in our conservation area statements, appraisals and management plans (see below). It is an offence to totally or substantially demolish a building or structure in a conservation area without first getting consent from us and we would not normally allow their demolition without substantial justification, in accordance with criteria set out in government guidance PPS5 – Planning for the Historic Environment.

Trees

- 3.10 Planning legislation makes special provision for trees in conservation areas. Prior to pruning or felling a tree in a conservation area you must provide the Council six weeks notice in writing. All trees that contribute to the character and appearance of a conservation area should be retained and protected. For further information on trees, please see Landscape Design and Trees chapter in this CPG.



Article 4 directions

- 3.11 A range of minor changes can be made to buildings without the need to apply for planning permission as these have a general permission through planning legislation. These changes are known as permitted development. However, the character of a conservation area depends on the presence of specific original details and where these are lost the historic interest and attractive character of the area deteriorates.

- 3.12 In these situations we can issue an Article 4 direction through Article 4 of the Town and Country Planning (General Permitted Development) Order 1995 (as amended). This removes permitted development rights and means a planning application has to be made for minor works that usually do not need one.
- 3.13 Further information on Article 4 directions, including where they apply in Camden is available on the 'Advice and help with planning applications' section of the Council's website www.camden.gov.uk and English Heritage has published Guidance on making Article 4 Directions, available at www.english-heritage.org.uk/publications/guidance-on-making-article-4-directions/

Conservation area statements, appraisals and management plans

- 3.14 We have published a series of conservation area statements, appraisals and management plans that set out our approach to preserving and enhancing the historic significance of each individual conservation area. Many of these conservation area statements are available for download on our website.
- 3.15 Conservation area statements, appraisals and management plans help guide the design of development in conservation areas and we take these into account when assessing planning applications.
- 3.16 Each conservation area statement, appraisal or management plan contains the following:
- A summary of the location and the historical development of an area;
 - A description of its character;
 - An outline of the key issues and development pressures that are currently of concern;
 - The key policy framework for that particular conservation area, and specific guidance for it;
 - An identification of heritage assets and elements of the wider historic environment which give an area its historic significance; and
 - An identification of sites and features that have a negative impact on the conservation area, or where an opportunity exists for enhancement of the area by redevelopment of a building or site.



Listed Buildings

What is a listed building?

- 3.17 A listed building is defined in the Planning (Listed Buildings and Conservation Areas) Act 1990 as a structure or building of special architectural or historic interest. These are included on the Statutory List of Buildings of Architectural or Historic Interest managed by English Heritage. Listed buildings are identified as heritage assets within the LDF and the Council is required to assess the impact that proposals to a listed building, or within their setting, may have on the historic significance of the building.
- 3.18 Listed buildings are graded according to their relative importance as either Grade I, Grade II* or Grade II. Grades I and II* are considered of outstanding architectural or historic interest and are of particularly great importance to the nation's heritage. The majority of listed buildings (about 94% nationally) are Grade II. However, the statutory controls on alterations apply equally to all listed buildings irrespective of their grade and cover the interior as well as the exterior and any object or structure fixed to or within their curtilage.

Listing description

The listing description contains details of a listed building's address, history, appearance and significance. These help to identify what it is about the building that gives it its special historic interest.

- 3.19 Further information on listed buildings in Camden is available on our website www.camden.gov.uk

How can I alter a listed building?

- 3.20 Most works to alter a listed building are likely to require listed building consent and this is assessed on a case by case basis, taking into

account the individual features of a building, its historic significance and the cumulative impact of small alterations. The listing description is not intended to be exhaustive and the absence of any particular feature in the description does not imply that it is not of significance, or that it can be removed or altered without consent. Listed status also extends to any object or structure fixed to the listed building, and any object or structure within its curtilage which forms part of the land. You should contact the Council at the earliest opportunity to discuss proposals and to establish whether listed building consent is required.

- 3.21 Some 'like for like' repairs and maintenance do not require listed building consent. However, where these would involve the removal of historic materials or architectural features, or would have an impact on the special architectural or historic interest of the building, consent will be required. If in doubt applicants should contact the Council for advice.
- 3.22 In assessing applications for listed building consent we have a statutory requirement to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. We will consider the impact of proposals on the historic significance of the building, including its features, such as:
- original and historic materials and architectural features;
 - original layout of rooms;
 - structural integrity; and
 - character and appearance.
- 3.23 We will expect original or historic features to be retained and repairs to be in matching material. Proposals should seek to respond to the special historic and architectural constraints of the listed building, rather than significantly change them.
- 3.24 Applications for listed building consent should be fully justified and should demonstrate how proposals would affect the significance of a listed building and why the works or changes are desirable or necessary. In addition to listed building consent, some proposals may also require planning permission. These applications should be submitted together and will be assessed concurrently.
- 3.25 It is a criminal offence to undertake unauthorised works to a listed building, even if you are not aware the building is listed, and could result in prosecution and fine or imprisonment (or both).
- 3.26 Some works that are required in order to comply with the Building Regulations (e.g. inclusive access, energy efficiency) may have an impact on the historic significance of a listed building and will require listed building consent.

Inclusive access to listed buildings

- 3.27 It is important that everyone should have dignified and easy access to and within historic buildings, regardless of their level of mobility. With

sensitive design, listed buildings can be made more accessible, while still preserving and enhancing the character of the building.

- 3.28 Further guidance is available in CPG4 Protecting and improving quality of life (Access for all chapter) and in the English Heritage publication “Easy Access to Historic Buildings” www.english-heritage.org.uk



How can historic buildings address sustainability?

- 3.29 We recognise the role that the historic environment can play in reducing the impact of climate change. For example, reusing existing buildings could avoid the material and energy cost of new development. There are many ways to improve the efficiency and environmental impact of historic buildings, for example improving insulation, draught-proofing and integrating new energy-saving and renewable-energy technologies. We will seek to balance achieving higher environmental standards with protecting Camden's unique built environment (in accordance with LDF Core Strategy policies CS13 Tackling climate change through promoting higher environmental standards and CS14 Promoting high quality places and conserving our heritage) and PPS5 policy HE.1.
- 3.30 More detailed guidance on how to modify buildings without compromising their significance is contained within CPG3 Sustainability (Energy efficiency: new buildings, Energy efficiency: existing buildings, Renewable energy, Climate change adaptation, Water efficiency, Flooding and Sustainable use of materials). For further information see the links at the end of this chapter.

Planning obligations relating to heritage assets

- 3.31 Many of the potential impacts of development on historic buildings and in archaeological priority and conservation areas can be covered through design and by conditions on the planning permission, for example the

need to carry out surveys or the storage and restoration of artefacts. Some objectives for building and area conservation or archaeology are unlikely to be satisfactorily controlled by a condition or in such cases and where impacts are off-site, or involve a particularly sensitive or complex programme of works, involving phasing, the Council may require implementation of these measures through a Section 106 Agreement.

Further information

<p>Planning Policy Statement 5 (PPS5)</p>	<p>The Government's national policies on the historic environment are set out in:</p> <ul style="list-style-type: none"> • Planning Policy Statement (PPS) 5 Planning for the historic environment – CLG, 2010 <p>If you want guidance implement this national policy, it is provided in:</p> <ul style="list-style-type: none"> • PPS5, Planning for the Historic Environment, The Government's Statement on the Historic Environment for England, and The Historic Environment Planning Practice Guide
<p>English Heritage</p>	<p>www.englishheritage.org.uk</p> <p>Guidance on heritage assets:</p> <ul style="list-style-type: none"> • Guidance on Conservation Area Appraisals, 2006 – English Heritage; • Guidance on Management of Conservation Areas, 2006 – English Heritage; • Climate Change and the Historic Environment (2008); and • Heritage at Risk Register - English Heritage http://risk.english-heritage.org.uk/2010.aspx <p>Guidance on sustainability measures in heritage buildings:</p> <ul style="list-style-type: none"> • Energy Conservation in Traditional Buildings • Climate Change and the Historic Environment <p>There is also an online resource dedicated to climate change and the historic environment, available at:</p> <ul style="list-style-type: none"> • www.englishheritage.org.uk/climatechangeandyourhome <p>Guidance on accessibility:</p> <ul style="list-style-type: none"> • Easy access to Historic Buildings, 2012 • Easy access to Historic Landscapes, 2013
<p>Energy Saving Trust</p>	<p>www.est.org.uk</p>

4 Extensions, alterations and conservatories

KEY MESSAGES

- Alterations should always take into account the character and design of the property and its surroundings.
- Windows, doors and materials should complement the existing building.
- Rear extensions should be secondary to the building being extended.
- You can make certain types of minor alterations without planning permission (see below) external alterations.

4.1 This guidance provides advice to those seeking to alter or extend a residential property, including the erection of conservatories. The principles of this guidance also apply to extensions and alterations to other types of property. It expects high quality design that respects and enhances the character and appearance of a property and its surroundings, and also covers matters such as outlook, privacy and overlooking.

4.2 This guidance relates to Core Strategy Policy CS14 Promoting high quality places and conserving our heritage and Development Policies DP24 Securing high quality design.

When does this apply?

4.3 This guidance applies to all proposals for alterations and extensions to residential properties, although some aspects will be relevant to alterations and extensions to other types of buildings.

4.4 You can make certain types of minor changes to your property without needing to apply for planning permission. These are called "permitted development rights", and further details can be found on the planning portal website www.planningportal.gov.uk or by contacting the Council. In some conservation areas, Article 4 directions have been introduced which have removed certain permitted development rights. Details of Article 4 Directions, including where they apply in Camden can be found in the Conservation and Urban Design section of our website www.camden.gov.uk.

4.5 In addition to this guidance, you should also make reference to chapters on Heritage, Design excellence and Roofs, Terraces and balconies, in this CPG. If your property is situated within a conservation area then you should also refer to the relevant Conservation Area Statement, Appraisal or Management Plan, which sets out detailed guidelines for development in a particular area. Many of these are available on our website.

Guidance for all extensions and alterations

External alterations

- 4.6 The good practice principles set out below and the general design considerations for residential façades shown in Figure 1 – ‘Alterations to Residential Façades’ should be followed when undertaking external alterations. A façade is the front or face of a building.

Good practice principles for external alterations

- 4.7 Alterations should always take into account the character and design of the property and its surroundings. A harmonious contrast with the existing property and surroundings may be appropriate for some new work to distinguish it from the existing building; in other cases closely matching materials and design details are more appropriate so as to ensure the new work blends with the old.

Windows

- Where it is necessary to alter or replace windows that are original or in the style of the originals, they should be replaced like with like wherever possible in order to preserve the character of the property and the surrounding area. New windows should match the originals as closely as possible in terms of type, glazing patterns and proportions (including the shape, size and placement of glazing bars), opening method, materials and finishes, detailing and the overall size of the window opening.
- Where timber is the traditional window material, replacements should also be in timber frames. uPVC windows are not acceptable both aesthetically and for environmental reasons, including their relatively short lifespan and inability to biodegrade. Similarly, where steel is the traditional window material, steel replacements will be sought wherever possible, see also CPG3 Sustainability (Sustainable use of materials chapter), which gives guidance on the use of sustainable materials).
- Reference should be made to the Building Research Establishment’s (BRE) Green Guide to Specification when sourcing replacement window frames.
- Where the original glazing bars are highly detailed and intricate, or contain stained glass or leaded panes these should be retained and repaired. See also the Camden leaflet *A Guide to Windows (2006)*, which is available on our website, for advice on secondary glazing and other ways to improve energy efficiency while retaining attractive original features.
- Where windows are replaced they should have the lowest ‘U-value’ feasible.
- Listed building consent will be required for replacement windows, secondary glazing and double-glazing in listed buildings.
- In conservation areas original single-glazed windows often contribute to the character and appearance of the area, and should be retained

and upgraded. There may however be some instances where double-glazing can be installed in a design that matches the original, for instance sash windows or casements with large individual pane sizes, or in secondary glazing. In such cases, the window frame and glazing bars of the replacement windows should match the existing.

- Further guidance on window alterations and the effect that this can have on energy efficiency and protecting heritage assets can be found on English Heritage's 'Climate Change and your Home' website: www.climatechangeandyourhome.org.uk

Doors

- Where you are looking to replace doors their design should match the dimensions, proportions, joinery details, panelling and glazing of the original. Where timber replacement doors are proposed the timber should be sustainably sourced.
- Characteristic doorway features, such as porches, such be retained where they make a positive contribution to the character of groups of buildings.

Materials

- Wherever possible you should use materials that complement the colour and texture of the materials in the existing building, see also CPG3 Sustainability (Sustainable use of materials chapter). In historic areas traditional materials such as brick, stone, timber and render will usually be the most appropriate complement to the existing historic fabric; modern materials such as steel and glass may be appropriate but should be used sensitively and not dominate the existing property.
- Materials for alterations should weather well, so their ageing process contributes positively to the character of the building, and the site's wider context.
- Original surface finishes should be retained or replicated wherever possible, as they are usually central to the architectural design / character treatment of a building. These may cover the entire building or façade (such as stucco facing), the roof elements (such as roof tiles and roof ridges), highlight specific features (such as windows or doors) or act as decorative elements (such as ironwork or terracotta panels).
- When repairing existing wall finishes, the composition of the original material (such as plaster, stucco or render) should be determined, the defective area cut out and a replacement material of identical chemical composition applied and properly bonded. Concrete repairs are generally non-original and unsympathetic to historic buildings, and can damage bricks, and should be replaced with a more traditional lime-based finish.
- The insulating quality of materials should be considered, along with their embodied energy (the energy used in manufacture) and the potential for re-use and recycling.

- Alterations or repairs to brickwork or stonework should match the original in all respects while satisfying the needs of durability and maintenance. This should include matching the original bond, mortar colour and texture. Retention of any existing pointing is encouraged wherever possible.
- Samples of brick type and mortar colour will normally be required to be submitted to the Council as part of any application.
- Painting, rendering or cladding of brickwork will normally be resisted, as it is often unsightly and can damage the appearance of a building by obscuring the texture and original colour of the façade. Painting, rendering or cladding may also trap moisture, which can cause major damp problems in the masonry.

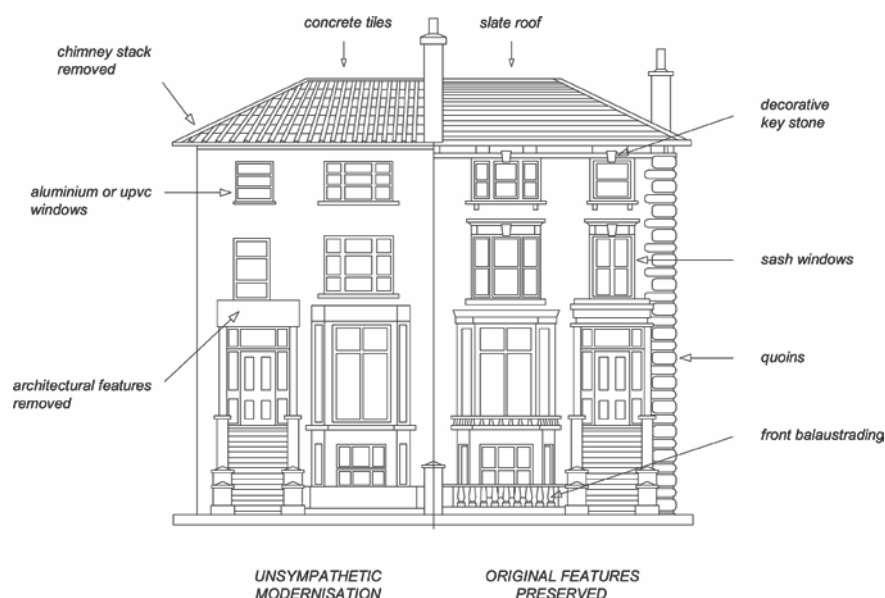
External pipework

- Original external pipework and guttering should be repaired or reinstated in a like-for-like manner, where possible. In the case of historic buildings, cast iron replicas of original pipework are preferable to uPVC pipes. New pipework should be restricted to the side and rear elevations of buildings to avoid spoiling the appearance of the principal façade and should be grouped together and located in a discrete position.

Scale

- 4.8 Extensions should be subordinate to the original building in terms of scale and situation unless the specific circumstances of the site, such as the context of the property or its particular design, would enable an exception to this approach. More detailed guidance on design considerations is contained within CPG1 Design (Design excellence chapter).

Figure 2. Alterations to residential facades



Rear extensions

- 4.9 A rear extension is often the most appropriate way to extend a house or property. However, rear extensions that are insensitively or inappropriately designed can spoil the appearance of a property or group of properties and harm the amenity of neighbouring properties, for example in terms of outlook and access to daylight and sunlight.

General principles

- 4.10 Rear extensions should be designed to:
- be secondary to the building being extended, in terms of location, form, scale, proportions, dimensions and detailing;
 - respect and preserve the original design and proportions of the building, including its architectural period and style;
 - respect and preserve existing architectural features, such as projecting bays, decorative balconies or chimney stacks;
 - respect and preserve the historic pattern and established townscape of the surrounding area, including the ratio of built to unbuilt space;
 - not cause a loss of amenity to adjacent properties with regard to sunlight, daylight, outlook, overshadowing, light pollution/spillage, privacy/overlooking, and sense of enclosure;
 - allow for the retention of a reasonable sized garden; and
 - retain the open character of existing natural landscaping and garden amenity, including that of neighbouring properties, proportionate to that of the surrounding area.
- 4.11 Materials should be chosen that are sympathetic to the existing building wherever possible (see also CPG3 Sustainability on Sustainable use of materials).

Height of rear extensions

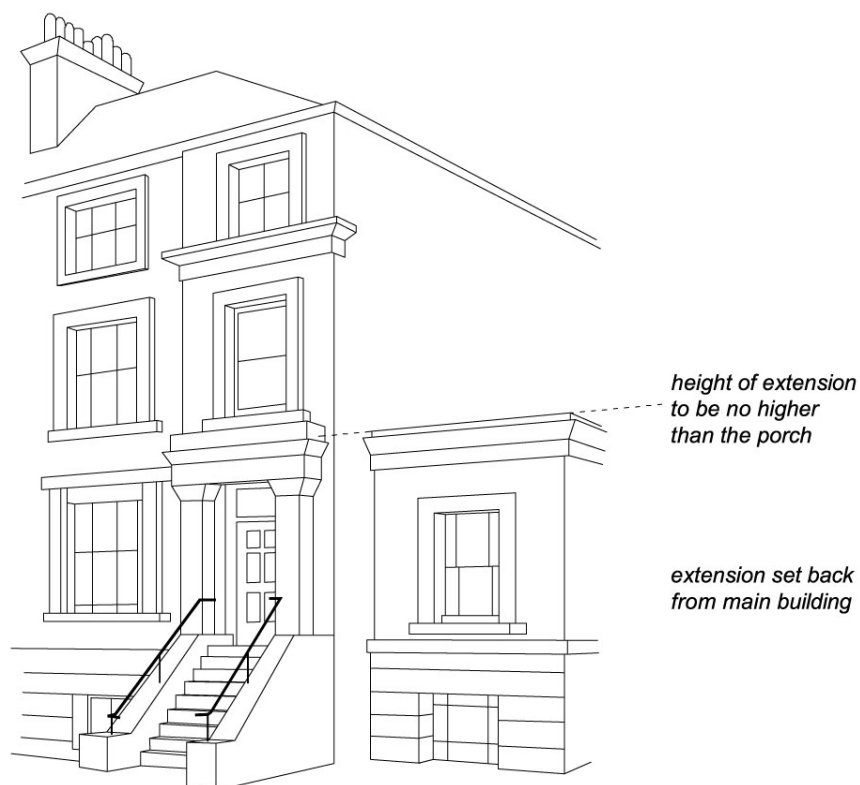
- 4.12 In order for new extensions to be subordinate to the original building, their heights should respect the existing pattern of rear extensions, where they exist. Ground floor extensions are generally considered preferable to those at higher levels. The maximum acceptable height of an extension should be determined in relation to the points outlined in paragraph 4.10 above. In cases where a higher extension is appropriate, a smaller footprint will generally be preferable to compensate for any increase in visual mass and bulk, overshadowing and overlooking that would be caused by the additional height.
- 4.13 In most cases, extensions that are higher than one full storey below roof eaves/parapet level, or that rise above the general height of neighbouring projections and nearby extensions, will be strongly discouraged.

Width of rear extensions

- 4.14 The width of rear extensions should be designed so that they are not visible from the street and should respect the rhythm of existing rear extensions.
- 4.15 In addition, the rear of some buildings may be architecturally distinguished, either forming a harmonious composition, or visually contributing to the townscape. The Council will seek to preserve these where appropriate. Some of the Borough's important rear elevations are identified in conservation area statements, appraisals and management plans.

Side extensions

- 4.16 Certain building forms may lend themselves to side extensions. Such extensions should be designed in accordance with the general considerations set out above in paragraph 4.10. Side extensions should also:
- be no taller than the porch; and
 - set back from the main building.
- 4.17 In many streets in the north of the Borough houses have mature rear gardens that can often be seen through gaps between buildings, softening the urban scene and providing visual interest. The infilling of gaps will not be considered acceptable where:
- significant views or gaps are compromised or blocked;
 - the established front building line is compromised;
 - the architectural symmetry or integrity of a composition is impaired;
 - the original architectural features on a side wall are obscured; or
 - access to the rear of a property is lost.
- 4.18 Where a property is located in a conservation area, reference should be made to the relevant conservation area statements, appraisals and management plans, which often identify important gaps and vistas where infilling would be inappropriate.

Figure 3. Side extensions

Conservatories

4.19 Conservatories should normally:

- be located adjacent to the side and rear elevations of the building;
- be subordinate to the building being extended in terms of height, mass, bulk, plan form and detailing;
- respect and preserve existing architectural features, e.g. brick arches, windows etc;
- be located at ground or basement level. Only in exceptional circumstances will conservatories be allowed on upper levels;
- not extend the full width of a building. If a conservatory fills a gap beside a solid extension, it must be set back from the building line of the solid extension; and
- be of a high quality in both materials and design.

4.20 Conservatories should not overlook or cause light pollution to neighbouring properties, including to those in flats above. In order to minimise overlooking, opaque lightweight materials such as obscured glass may be necessary on façades abutting neighbouring properties. Also, in order to minimise light pollution, solid lightweight materials, one-way glass or obscured glass may be required.

- 4.21 Further guidance is contained within CPG4 Protecting and improving quality of life (Light Pollution chapter).

Development in rear gardens and other open land

- 4.22 The construction of garden buildings, including sheds, stand-alone green houses and other structures in rear gardens and other undeveloped areas, can often have a significant impact upon the amenity, biodiversity and character of an area. They may detract from the generally soft and green nature of gardens and other open space, contributing to the loss of amenity for existing and future residents of the property.
- 4.23 Large garden buildings may also affect the amenity value of neighbours' gardens, and if used for purposes other than storage or gardening, may intensify the use of garden spaces.
- 4.24 Development in rear gardens should:
- ensure the siting, location, scale and design of the proposed development has a minimal visual impact on, and is visually subordinate to, the host garden
 - not detract from the open character and garden amenity of the neighbouring gardens and the wider surrounding area
 - use suitable soft landscaping to reduce the impact of the proposed development
 - ensure building heights will retain visibility over garden walls and fences
 - use materials which complement the host property and the overall character of the surrounding area. The construction method should minimise any impact on trees (also see Landscape design and trees chapter in this CPG), or adjacent structures
 - address any impacts of extensions and alterations upon water run-off and groundwater flows, both independently or cumulatively with other extensions, and demonstrate that the impact of the new development on water run-off and groundwater flows will be negated by the measures proposed. Reference should be made to CPG3 Sustainability (Flooding chapter).
- 4.25 Pockets of privately owned land make important contributions to the character of certain parts of the borough, both in established neighbourhoods and areas of new development, creating village greens, informal verges, set backs for established structures or settings for listed buildings. Building on such areas will generally be discouraged.
- 4.26 Where any type of development, either in a rear garden or on private land that forms part of a public space, may be appropriate in principle, a full assessment should be made prior to the commencement of the development to avoid any potential impact upon trees or other vegetation in the surrounding area. This assessment may be required as part of an application for planning permission.

Further information

- 4.27 The following professional bodies provide further guidance and advice on buildings and design matters:
- Royal Institute of Chartered Surveyors (RICS); and
 - Royal Institute of British Architects (RIBA).

5 Roofs, terraces and balconies

KEY MESSAGES

Roof extensions fall into two categories:

- Alterations to the overall roof form; or
- Smaller alterations within the existing roof form, such as balconies and terraces.

When proposing roof alterations and extensions, the main considerations should be:

- The scale and visual prominence;
- The effect on the established townscape and architectural style;
- The effect on neighbouring properties

- 5.1 This guidance provides advice on roof alterations and extensions and on proposals for balconies and terraces. The Council will seek to ensure that roof alterations are sympathetic and do not harm the character and appearance of buildings or the wider townscape in the borough.
- 5.2 This guidance replates primarily to Development Policies DP24 Securing high quality design and DP25 Conserving Camden's Heritage.

When does this apply?

- 5.3 This guidance applies to all planning applications involving roof alterations, roof extensions, balconies and terraces, and is particularly relevant to residential properties.
- 5.4 For properties in conservation areas, reference should also be made to the relevant conservation area statements, appraisals and management plans. These describe the area and its special character and contain specific area-based advice.
- 5.5 Where buildings are listed, reference should also be made to planning guidance on Heritage.

Roof alterations and extensions – general principles

- 5.6 Proposals to alter and extend roofs fall into two categories: those that are accommodated within the existing roof form, such as dormer windows and roof lights, and those which alter the overall roof form, such as the construction of mansard roofs.
- 5.7 Additional storeys and roof alterations are likely to be **acceptable** where:
- There is an established form of roof addition or alteration to a terrace or group of similar buildings and where continuing the pattern of development would help to re-unite a group of buildings and townscape;

- Alterations are architecturally sympathetic to the age and character of the building and retain the overall integrity of the roof form;
- There are a variety of additions or alterations to roofs which create an established pattern and where further development of a similar form would not cause additional harm.

5.8 A roof alteration or addition is likely to be **unacceptable** in the following circumstances where there is likely to be an adverse affect on the skyline, the appearance of the building or the surrounding street scene:

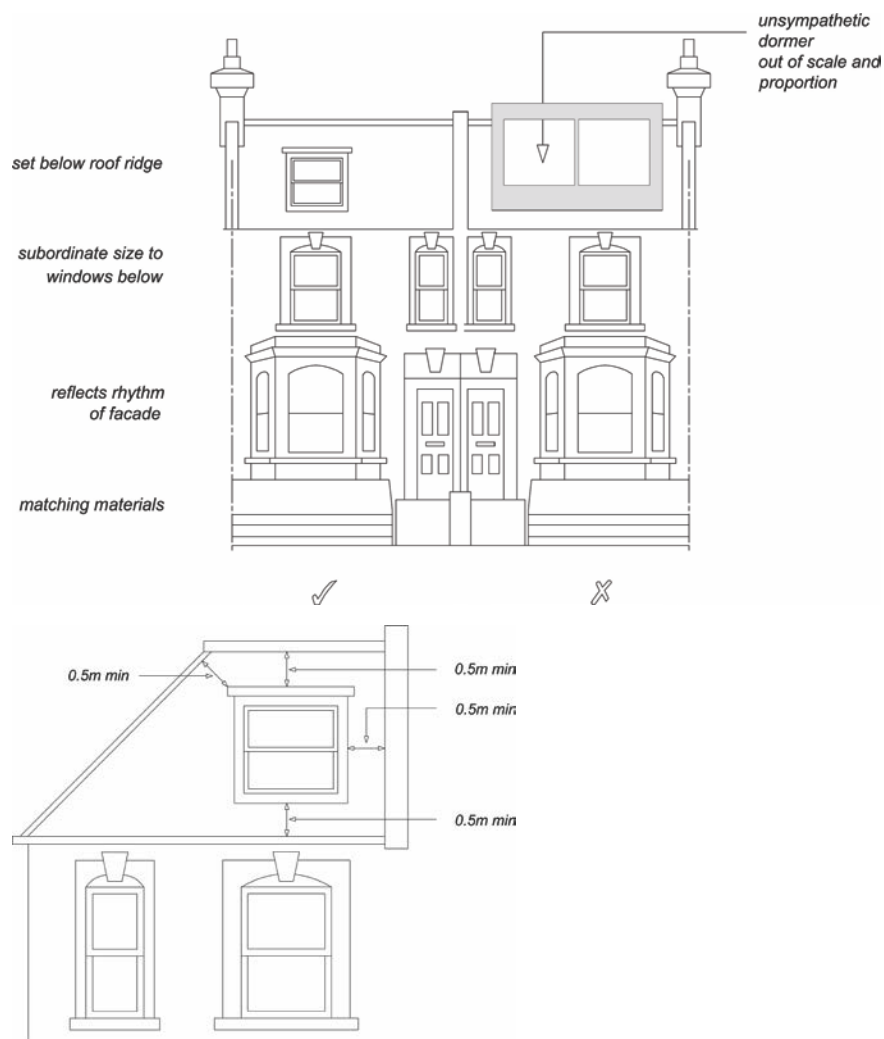
- There is an unbroken run of valley roofs;
- Complete terraces or groups of buildings have a roof line that is largely unimpaired by alterations or extensions, even when a proposal involves adding to the whole terrace or group as a co-ordinated design;
- Buildings or terraces which already have an additional storey or mansard;
- Buildings already higher than neighbouring properties where an additional storey would add significantly to the bulk or unbalance the architectural composition;
- Buildings or terraces which have a roof line that is exposed to important London-wide and local views from public spaces;
- Buildings whose roof construction or form are unsuitable for roof additions such as shallow pitched roofs with eaves;
- The building is designed as a complete composition where its architectural style would be undermined by any addition at roof level;
- Buildings are part of a group where differing heights add visual interest and where a roof extension would detract from this variety of form;
- Where the scale and proportions of the building would be overwhelmed by additional extension.

5.9 Materials, such as clay tiles, slate, lead or copper, that visually blend with existing materials, are preferred for roof alterations and repairs. Where roofs are being refurbished, original materials such as keyhole ridge tiles or decorative chimney stacks and chimney pots should be reused. Replacement by inappropriate substitutes erodes the character and appearance of buildings and areas.

5.10 Where the principle of an additional storey is acceptable, the more specific guidance set out below will apply. This advice is supplemented by more specific area-based advice as set out in the Council's conservation area statements, appraisals and management plans which set out our approach to preserving and enhancing such areas. Many of these appraisals and management plans are available for download on our website, or are available as hard copies from our Planning reception.

Roof dormers

- 5.11 Alterations to, or the addition of, roof dormers should be sensitive changes which maintain the overall structure of the existing roof form. Proposals that achieve this will be generally considered acceptable, providing that the following circumstances are met:
- a) The pitch of the existing roof is sufficient to allow adequate habitable space without the creation of disproportionately large dormers or raising the roof ridge. Dormers should not be introduced to shallow-pitched roofs.
 - b) Dormers should not be introduced where they cut through the roof ridge or the sloped edge of a hipped roof. They should also be sufficiently below the ridge of the roof in order to avoid projecting into the roofline when viewed from a distance. Usually a 500mm gap is required between the dormer and the ridge or hip to maintain this separation (see Figure 4). Full-length dormers, on both the front and rear of the property, will be discouraged to minimise the prominence of these structures.
 - c) Dormers should not be introduced where they interrupt an unbroken roofscape.
 - d) In number, form, scale and pane size, the dormer and window should relate to the façade below and the surface area of the roof. They should appear as separate small projections on the roof surface. They should generally be aligned with windows on the lower floors and be of a size that is clearly subordinate to the windows below. In some very narrow frontage houses, a single dormer placed centrally may be preferable (see Figure 4). It is important to ensure the dormer sides (“cheeks”) are no wider than the structure requires as this can give an overly dominant appearance. Deep fascias and eaves gutters should be avoided.
 - e) Where buildings have a parapet the lower edge of the dormer should be located below the parapet line (see Figure 4).
 - f) Materials should complement the main building and the wider townscape and the use of traditional materials such as timber, lead and hanging tiles are preferred.

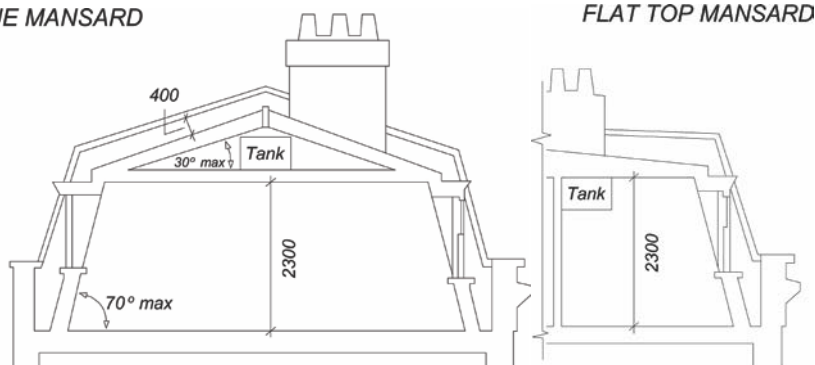
Figure 4. Dormer windows

5.12 See CPG2 Housing (Residential development standards chapter) for further information, particularly the section on ceiling heights.

5.13 The presence of unsuitably designed new or altered dormers on neighbouring properties will not serve as a precedent for further development of the same kind.

Mansard Roofs

5.14 Mansard roofs are a traditional means of terminating a building without adding a highly visible roof. This form is acceptable where it is the established roof form in a group of buildings or townscape.

Figure 5. Mansard Roofs**TRUE MANSARD****True Mansard**

Lower slope is at a steeper angle than the upper, and the upper slope is visible

Flat topped Mansard

Upper slope of a pitch below 5° or totally flat

- 5.15 Mansard roofs are often the most appropriate form of extension for a Georgian or Victorian dwelling with a raised parapet wall and low roof structure behind. Mansard roofs should not exceed the height stated in Figure 5 so as to avoid excessive additional height to the host building. They are often a historically appropriate solution for traditional townscapes. It should be noted that other forms of roof extensions may also be appropriate in situations where there is a strong continuous parapet and the extension is sufficiently set back or where they would match other existing sympathetic roof extension already in the terrace.

Parapet wall

A low wall or railing that is built along the edge of a roof, balcony or terrace for protection purposes.

Cornice

The topmost architectural element of a building, projecting forward from the main walls, originally used as a means of directing rainwater away from the building's walls.

- 5.16 The three main aspects to consider when designing a mansard roof extension are its:
- pitches and profile;
 - external covering; and
 - windows.
- 5.17 The lower slope (usually 60-70°) should rise from behind and not on top of the parapet wall, separated from the wall by a substantial gutter. Original cornice, parapet and railing details should be retained and where deteriorated or lost, should be incorporated into the design of new roof extensions. Visible chimney stacks should be retained and increased in height, where necessary. Only party walls with their chimney stacks and windows should break the plane of the roof slope, and should be accommodated in a sensitive way and be hidden as far

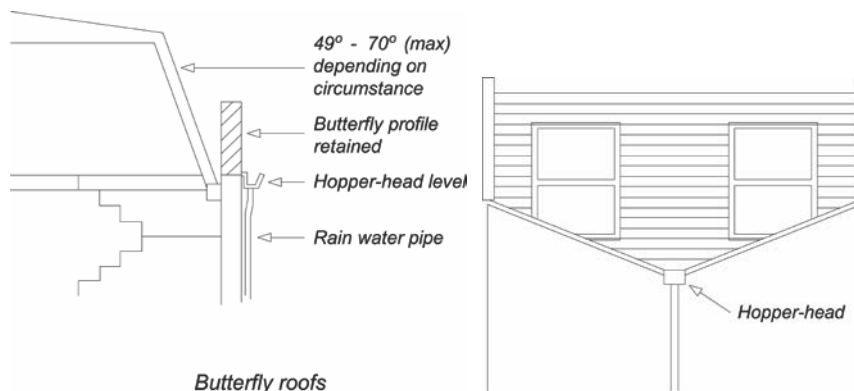
as is possible. (See also guidance on dormer windows and roof lights). Dormer windows or roof lights should be confined to the lower slope.

- 5.18 Roofing materials should be of the highest quality because of their significant visual impact on the appearance of a building and townscape and the need to be weather-tight. Natural slate is the most common covering and this should be laid with a traditional overlap pattern. Artificial slate or felt are not acceptable roof coverings in conservation areas. Where a roof in a conservation area is being re-covered, the choice of covering should replicate the original, usually natural slate or clay tile.

Valley or Butterfly roofs

- 5.19 On buildings with a 'valley' or 'butterfly' roof if a mansard extension is considered acceptable in terms of the guidance in paragraphs 5.7 and 5.8 of this chapter, then the parapet should be retained. The new roof should start from behind the parapet at existing hopper-head level, forming a continuous slope of up to a maximum of 70° (see Figure 6). In this context, it is usually more appropriate to introduce conservation-style roof lights, which are flush with the roof slope, rather than dormers. Terraces and additional railings will not usually be acceptable.

Figure 6. Butterfly roofs



Hopper head level

The level at which the 'hopper head' (a square or funnel shaped receptacle to connect rainwater or waste pipes to a down-pipe) is positioned.

Other roof additions

- 5.20 On some contemporary buildings a less traditional form of roof addition may be more appropriate. In such cases, proposals should still have regard for the following general principles:
- The visual prominence, scale and bulk of the extension;
 - Use of high quality materials and details;

- Impact on adjoining properties both in terms of bulk and design and amenity of neighbours, e.g. loss of light due to additional height;
- Sympathetic design and relationship to the main building.

Roof lights

- 5.21 Roof lights can have an adverse impact upon the character and appearance of buildings and streetscapes. This occurs where they are raised above the roof slope rather than being flush with the roof profile, or where they are an incompatible introduction into an otherwise uncluttered roofscape, or where they conflict with other architectural roof elements, e.g. gables and turrets.
- 5.22 Roof lights should be proportioned to be significantly subordinate both in size and number and should be fitted flush with the roof surface. Some properties, particularly listed buildings and those within conservation areas with prominent roof slopes may be so sensitive to changes that even the installation of roof lights may not be acceptable.

Balconies and terraces

- 5.23 Balconies and terraces can provide valuable amenity space for flats that would otherwise have little or no private exterior space. However, they can also cause nuisance to neighbours. Potential problems include overlooking and privacy, daylight, noise, light spillage and security.
- 5.24 Balconies and terraces should form an integral element in the design of elevations. The key to whether a design is acceptable is the degree to which the balcony or terrace complements the elevation upon which it is to be located. Consideration should therefore be given to the following:
- detailed design to reduce the impact on the existing elevation;
 - careful choice of materials and colour to match the existing elevation;
 - possible use of setbacks to minimise overlooking – a balcony need not necessarily cover the entire available roof space;
 - possible use of screens or planting to prevent overlooking of habitable rooms or nearby gardens, without reducing daylight and sunlight or outlook; and
 - need to avoid creating climbing opportunities for burglars.

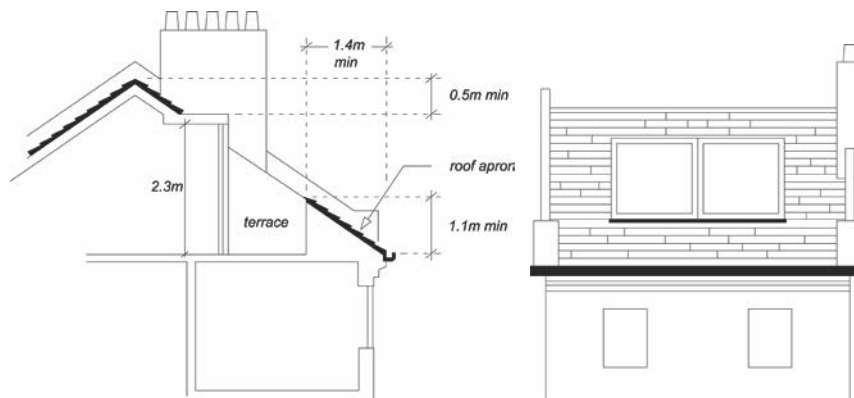
Roof Level

- 5.25 A terrace provided at roof level should be set back behind the slope of a pitched roof in accordance with Figure 7, or behind a parapet on a flat roof. A terrace should normally comply with the following criteria:
- The dimensions of the roof should be sufficient to accommodate a terrace without adversely affecting the appearance of the roof or the elevation of the property.
 - A terrace will only normally be acceptable on the rear of properties. It is normally inappropriate to set back a mansard to provide a terrace.

- It should not result in the parapet height being altered, or, in the case of valley/butterfly roofs, the infilling of the rear valley parapet by brickwork or railings.
- Any handrails required should be well set back behind the line of the roof slope, and be invisible from the ground.
- It should not result in overlooking of habitable rooms of adjacent properties.

- 5.26 When a terrace is provided within the slope of a pitch as in Figure 7, the adjacent tiles or slates should be kept unbroken above the eaves. The width of the terrace should be no wider than a dormer opening. A terrace may be acceptable behind an existing parapet. Where the height of the parapet is less than 1.1m, a railing will be required to fulfil Building Regulations.

Figure 7. Roof terraces



Building services equipment

- 5.27 New building services equipment and water tanks should be accommodated within the envelope of the building and its siting should be considered as part of the overall design (see chapter on Building services equipment in this CPG). Building services equipment includes, but is not limited to, heating and cooling systems, ventilation and extraction systems and associated ducting for electricity, communications and plumbing.

Green roofs

- 5.28 We encourage the incorporation of green roofs into schemes where appropriate in design terms (see chapter on Green roofs and walls in CPG3 Sustainability). You should contact the Council to confirm whether planning permission is required for green roofs. Planning permission is not required on flat roofs which are concealed by a parapet.

Solar panels

- 5.29 We encourage the installation of solar panels into schemes and for some properties these will not need planning permission. You should

contact the Council and visit the Planning Portal website www.planningportal.gov.uk to confirm whether planning permission is required for solar panels. Solar panels should be sited so as to maximise efficiency but minimise their visual impact and glare, for example utilising valley roofs and concealed roof slopes. Reference should be made to CPG3 Sustainability (Energy Efficiency: existing buildings and Energy Efficiency: new buildings chapters).

Camden Planning Guidance

Amenity

London Borough of Camden

CPG 6



CPG6 Amenity

1	Introduction	5
2	Air quality	7
3	Contaminated land	15
4	Noise and vibration	19
5	Artificial light	25
6	Daylight and sunlight	31
7	Overlooking, privacy and outlook	37
8	Construction management plans	39
9	Access for all	45
10	Wind and micro-climate	53
11	Open space, outdoor sport and recreation facilities	59
12	Planning for healthy communities	79

1 Introduction

What is Camden Planning Guidance?

- 1.1 We have prepared this guidance to support the policies in our Local Development Framework (LDF). It is therefore consistent with the Camden Core Strategy and Development Policies, and is a formal Supplementary Planning Document (SPD) which is an additional “material consideration” in planning decisions. This guidance will replace Camden Planning Guidance 2006, updating advice where appropriate and providing new guidance on matters introduced or strengthened in the LDF.
- 1.2 Camden Planning Guidance covers a range of topics (such as design, housing, sustainability and planning obligations) and all of sections should be read in conjunction with, and within the context of, Camden’s other LDF documents.

Amenity in Camden

- 1.3 A key objective of the Camden Core Strategy is to sustainably manage growth so that it avoids harmful effects on the amenity of existing and future occupiers and to nearby properties.

What does this guidance cover?

- 1.4 This guidance provides information on all types of amenity issues within the borough and includes the following sections:
 1. Air quality
 2. Contaminated land
 3. Noise and vibration
 4. Artificial light
 5. Daylight and sunlight
 6. Overlooking, privacy and outlook
 7. Construction management plans
 8. Access for all
 9. Wind and micro-climate
 10. Open space, outdoor sport and recreation facilities

- 1.5 This guidance supports the following Local Development Framework policies:

Camden Core Strategy

- CS5 - Managing the impact of growth and development
- CS15 - Protecting and improving our parks and open spaces & encouraging biodiversity
- CS16 - Improving Camden’s health and well-being

Camden Development Policies

- DP26 - Managing the impact of development on occupiers and neighbours
- DP28 - Noise and vibration
- DP31 - Provision of, and improvements to, public open space and outdoor sport and recreation facilities
- DP32 - Air quality and Camden's Clear Zones

2 Air quality

KEY MESSAGES:

- All of Camden is a designated Air Quality Management Area due to the high concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀).
- All developments are to limit their impact on local air quality.

2.1 Poor air quality can harm health and the environment. The Council aims to make sure that new development does not harm air quality. This guidance provides advice on how to address air quality issues in planning applications.

2.2 Camden Core Strategy policy CS16 - *Improving Camden's health and well-being* and policy DP32 – *Air quality and Camden's Clear Zone* of the Camden Development Policies sets out our approach to air quality in the borough.

2.3 *Planning Policy Statement PPS23: Planning and Pollution Control* contains the Government's core policies and principles on air quality and air pollution. The London Plan outlines regional policies related to protecting local air quality during the planning process.



Air quality in Camden

2.4 An Air Quality Management Area (AQMA) must be declared by the local authority for an area that is unlikely to meet the national air quality targets for specific air pollutants. The authority then produces a Local Air Quality Action Plan. See Camden's website for our air quality plan.

2.5 The whole of Camden is an Air Quality Management Area (AQMA) as it does not meet national air quality targets for nitrogen dioxide (NO₂) and particulate matter (PM₁₀). The main sources of air pollution in Camden are road transport and gas boilers. The Council's Air Quality Action Plan outlines measures to reduce emissions from the key sources of air pollution in the borough. Included in the plan are measures to minimise and control NO_x and PM₁₀ emissions associated with new developments both during the construction of a building and its future use.

2.6 Air quality is particularly poor in the south of borough which is characterised by high levels of traffic. We will only grant planning permission for development that significantly increases travel demand in

the south of the borough where it includes appropriate measures to minimise the transport impact of development.

- 2.7 Where appropriate we will seek developments to include monitoring equipment to allow us to better understand local air quality.

WHAT DOES THE COUNCIL REQUIRE?

The Council's overarching aim is for new development is to be 'air quality neutral' and not lead to further deterioration of existing poor air quality.

You will be required to include mitigation and offsetting measures to deal with any negative air quality impacts associated with your development proposals. At the same time your development should be designed to minimise exposure of occupants to existing poor air quality.

To manage and prevent further deterioration of air quality in Camden, we will require an air quality assessment with planning applications for development that could have a significant negative impact in air quality. This impact can arise during both the construction and operational stages of a development as a result of increased NO_x and PM₁₀ emissions.

- 2.8 An air quality assessment will also be required for a proposal if it introduces uses that are susceptible to poor air quality, such as housing or a school, into areas of particularly poor air quality.
- 2.9 The Council will not grant planning permission for developments that could significantly harm air quality or introduce people into areas of elevated pollution concentrations, unless mitigation measures are adopted to reduce the impact to acceptable levels and protect public exposure (see paragraph 32.4 of policy DP32 of the Camden Development Policies).
- 2.10 Although all of Camden is covered by an AQMA we will only require an air quality assessments where development could potentially cause significant harm to air quality as set out in the table below.

An Air Quality Assessment is required in developments:

- with potential to significantly change road traffic on any road exceeding 10,000 vehicles per day. Significant changes include:
 - increase in traffic volumes > 5% (Annual Average Daily Traffic (AADT) – or peak);
 - lower average vehicle speed or significant increase in congestion;
 - significant increase in the percentage of HGVs;
- that introduce, or increase car parking facilities by, 100 spaces or more;
- with commercial floorspace of more than 1,000sq m;
- with more than 75 homes;
- where people will be exposed to poor air quality for significant periods of the day, in particular developments located on busy roads;
- involving the following - biomass boilers, biomass or gas combined heat and power (CHP);
- involving industrial or commercial floorspace regulation under the Environmental Permitting (England and Wales) Regulations (EPR) which will be subject to Environmental Assessment under the Town and Country Planning (Environmental Impact Assessment) Regulations 1999.

What should an air quality assessment cover?

- 2.11 Air quality assessments for developments potentially contributing to poor air quality are to include the following:
- a) An inventory of the PM₁₀ and NO_x emissions associated with the proposed development, including the type and quantity of emission concentrations, during the construction and operational phase. This shall cover transport, stationary and mobile emission sources.
 - b) The application of atmospheric dispersion modelling to predicted existing and future NO₂ and PM₁₀ concentrations, both with and without the proposed development. Dispersion modelling shall be carried out in accordance with Air Quality and Planning Guidance, London Councils (2007) and Technical Guidance Note (TG09). (Specific guidance for modelling combustion plant emissions can be obtained from the Council's Sustainability Team – see Useful Contacts at the end of this section).
 - c) An assessment of the significance of air quality impacts during both the construction and operational phases. Reference shall be made to the Environmental Protection UK Guidance Note: Development Control: Planning for Air Quality (2010 Update).
 - d) Consideration of the potential cumulative impacts on air quality which may arise during the construction or operational phases as a result of emissions arising from other developments within a 100m radius of the development.
 - e) Where a biomass boiler or combined heat and power (CHP)/combined cooling, heating and power (CCHP) will be used for

on site energy generation, you are to complete the Council's Air Quality Information Request Form. This requires specific technical details related to the appliance, fuel type, emission concentrations, maintenance and exhaust stack. The forms can be obtained from Camden's Air Quality Officer or the Council's air quality webpage under Environment.

- f) Applications which include biomass boilers or biomass CHP, the air quality assessment shall compare the impact of emissions from the intended biomass boiler/CHP and a gas boiler/CHP of identical thermal rating.
- g) An indication of the number of new occupiers and users of the site who will be exposed to poor air quality as a result of the development (the occupiers/users should also be shown on a map). For further information please refer to the Environmental Protection UK Guidance Note: Development Control: Planning For Air Quality (2010 Update).
- h) An assessment of the impacts on air quality of the demolition and construction phase and details of mitigation methods for controlling dust and emissions from plant and machinery. Reference should be made to the Best Practice Guidance: The control of dust and emissions at construction and demolition, London Councils (2006).
- i) An outline of, and justification for, mitigation measures associated with the design, location and operation of the development in order to reduce air pollution and exposure to poor air quality.

Developments containing sensitive uses

- 2.12 Developments which will not result in additional NO_x and/or PM₁₀ emissions and present no risk in worsening air quality, but introduce new sensitive uses to an area which breaches the air quality standards for NO₂ or PM₁₀ need to submit an assessment of the local air quality but can omit requirements B, D and E above.

What measures can reduce air pollution emissions and protect public exposure?

- 2.13 Various actions can be taken to mitigate air pollution emissions arising from the construction and operational phases of a new development. Additional actions can be adopted to curtail public exposure in areas where air pollution levels are particularly high. These should be taken into account during the design stage of an application. The key measures are detailed below:

Demolition and construction

- 2.14 The impact of the construction and demolition phases of a development on air quality must be taken into account as part of your planning application. Exhaust



emissions from construction vehicles and machinery such as generators, piling and grinding equipment can result in:

- dust emissions;
- gases (NO_x); and
- fine particles.

2.15 Controlling dust emissions is important to:

- prevent disturbance to local residents due to soiling;
- minimise damage to vegetation; and
- reduce impacts on local PM₁₀ concentrations, thereby protecting public health.

2.16 We may require PM₁₀ monitoring, before and during the construction and demolition phase, dependant upon the scale of the proposed development.

2.17 We will encourage best practice measures to be adopted during construction and demolition work to reduce and mitigate air pollution emissions. You will be encouraged to adopt the procedures outlined in the London Council's best practice guidance *The control of dust and emissions from construction and demolition*. These focus around three principles to control emissions – prevention, suppression and containment. We will expect you to include the following items in construction management plans:

- Identification of whether demolition/construction represents a low, medium or high risk site in the context of air quality.
- Identification of the best practice measure required to control and mitigate plant and vehicles exhaust emissions.
(See section 8 of this Guidance on Construction management plans for further details).

Distance of impacts

Depending of the size, location and characteristics of your development, impacts from demolition and construction phases can occur at distance of 10 to 500m.

Building location and design

2.18 The location of a development has a direct influence on exposure to elevated air pollution levels. This is particular relevant where developments include sensitive uses such as hospitals, schools and children's playgrounds. Suitable building design, layout and orientation can avoid increasing exposure whilst minimising energy demand and energy loss. The Council requires the impact of outdoor air pollution on indoor air quality in new developments to be taken into account at the earliest stages of building design.

- 2.19 The location of outside space is also an important consideration and any exposure of gardens and roof terraces should be screened and, where practicable, minimised through appropriate positioning and orientation. You should take care not to locate flues and exhaust vents in close proximity to recreational areas such as roof terraces or gardens. An energy efficient building design can minimise air pollution resulting from the use of gas boilers. Adopting sustainable building design (e.g. the Code for Sustainable Homes and the Building Research Establishment Environmental Assessment Method (BREEAM)), will reduce thermal heat losses and result in less gas use leading to lower NO_x emissions. See Camden Planning Guidance 3 – Sustainability for further details on the Code and BREEAM.

Gas boilers

- 2.20 Gas boilers are a large source of NO_x emissions in Camden. In order to minimise NO_x emissions arising from heating and hot water systems the Council requires boilers fitted in new development to achieve a NO_x emissions of <40 mg/m³ and an energy efficiency rating >90%.

Renewable Energy and Combined Heat and Power

- 2.21 Core Strategy policy CS13 promotes the use of renewable energy technologies to reduce carbon emissions and tackle climate change. The adoption of renewable energy and energy efficiency technologies in major developments can minimise air pollution emissions through reductions in gas consumption required for heating and hot water. These include solar thermal collectors and ground source heat pumps in addition to gas and hydrogen fuel cell combined heat and power (CHP) or combined cooling heat and power (CCHP).

Hydrogen fuel cell

A fuel cell is an electrochemical cell that converts energy from a fuel (hydrogen) into electricity.

- 2.22 Biomass boilers however can give rise to higher emissions of NO_x and PM₁₀ emissions than conventional gas boilers. Permission to operate these appliances will only be granted if the air quality impacts are demonstrated to be equivalent or lower than those associated with a conventional gas boiler of similar thermal rating. Where an assessment demonstrates adverse effects on air quality, this type of biomass boiler should not be used in the development.
- 2.23 You are advised to refer to the national guidance note *Biomass and Air Quality Guidance Note for Local Authorities*, published by Environmental Protection UK. In cases where emissions released from a biomass boiler do not lead to negative impacts on air quality, the



appliance will be required to meet high standards of air pollution control with particular emphasis given to:

- boiler design and operation;
- pollution abatement equipment;
- servicing and maintenance;
- fuel quality, storage and delivery; and
- exhaust stack height.

2.24 We will require evidence that the exhaust stack height of gas CHP/CCHP has been appropriately calculated to guarantee that NO_x emissions are effectively dispersed, and do not risk increasing ground level NO₂ concentrations. An air quality assessment will be required for developments including CHP/CCHP. Where the assessment reveals a negative impact on air quality, mitigation measures will be required entailing the best available techniques to reduce emissions. This includes the installation of NO_x abatement technology such as:

- use of low NO_x burners; or
- increasing stack height.

2.25 A programme of on-going maintenance and servicing will be necessary to minimise gas emissions released from CHP/CCHP.

2.26 The Council will use Section 106 obligations to set requirements for controlling emissions from biomass boilers and CHP/CCHP.

Traffic Reduction

2.27 Reducing car usage caused by new developments is the principle way to minimise vehicle emissions and protect local air quality. Please refer to transport policy *CS11 - Promoting sustainable and efficient travel* in the Camden Core Strategy for more on our approach to improving air quality through transport measures. This requires:

- the adoption of car free and car capped developments;
- provision cycling facilities to encourage sustainable transport;
- green travel plans;
- provision of car club bays; and
- infrastructure for low emissions vehicles such as electric vehicle recharging points.

Further information

Planning Guidance	<ul style="list-style-type: none"> • Planning Policy Statement 23: Planning and Pollution Control (2004) • Planning Policy Statement 23 Annex 1: Pollution Control, Air and Water Quality These documents outline the government's advice on methods of planning for pollution control.
Air Quality Guidance	<ul style="list-style-type: none"> • Technical Guidance Note: Assessment of Air Quality Issues of Planning Applications, Association of London Government (ALG), 2006 This provides technical advice on how to deal with planning applications that could have an impact on air quality. • Development Control: Planning for Air Quality. Environmental Protection UK, 2010 This advises of the significance of air quality assessments within the planning process. • Best Practice Guidance - The control of dust and emissions from construction and demolition (London Councils) 2006 The aim of this guidance is to protect the health of on-site workers and the public and to provide London-wide consistency for developers. • Biomass and Air Quality Guidance for Local Authorities (Environmental Protection UK) 2009 This guidance details procedures for assessing and managing the effects of biomass on air quality and provides background material. • Low Emission Strategies (Beacon Low Emission Group) 2009 This provides advice on how to reduce emissions of air pollutants and greenhouse gases from transport.
Useful Contacts	<p>Camden Council Corporate Sustainability Team www.camden.gov.uk/smallsteps (020 7974 4444) provides guidance on air quality in Camden</p>

3 Contaminated land

KEY MESSAGES:

- Contaminated land can pose a serious risk to health.
- The Council will expect developers to identify and assess potentially contaminated land at an early stage.
- Developers will be expected to follow the Council's Contaminated Land Strategy.

3.1 This guidance provides advice on how to approach the development of potentially contaminated sites. This guidance should be read in conjunction with Core Strategy policy CS16 – *Improving Camden's health and well-being*.

3.2 To protect the local environment and the health and well-being of residents, workers and visitors, we will carefully assess any proposals for the redevelopment of sites that:

- are known to be contaminated;
- have the potential to be contaminated, through previous or current uses; or
- are located in close proximity to these sites.

What is contaminated land?

3.3 Contaminated land is land that has been polluted with harmful substances to the point where it now poses a serious risk to health and the environment.

Causes of land contamination

- improper chemical handling or disposal practices,
- accidental spillages, or leakages of chemicals during manufacturing or storage.
- polluted groundwater migrating under a site
- particles settling from factory emissions.

3.4 The most common pollutants of land are metals and organic compounds. Typical land uses that can cause land contamination include petrol stations and gas works.

3.5 Contamination can also come from historical activities dating back many hundreds of years, such as spoil heaps from some Roman lead mines, and even from naturally occurring substances.

3.6 Contaminants may still be present above acceptable levels even though the polluting use stopped many years ago. 'Contaminated land' has a specific legal definition which is used in relation to an 'unacceptable risk'

of harm to health. For more information please see Department for Environment, Food and Rural Affairs (DEFRA) web pages.

- 3.7 In principle we will support the redevelopment of contaminated sites where the contamination issue can be successfully addressed and where future uses can be carried out safely. Remediation is particularly important where people have access to ground for gardening, play or planting food for consumption within redeveloped sites.

What should you do if your site is contaminated or potentially contaminated?

- 3.8 In accordance with Planning Policy Statement (PPS) 23: Planning and Pollution Control, if you propose a development on contaminated or potentially contaminated land, it is your responsibility to ensure that contaminated land issues are considered at the planning application stage.
- 3.9 Where contamination is known or suspected on a site or the proposed use would be vulnerable to contamination, we will expect you to provide, as a part of your planning application, the necessary information as outlined in this chapter to determine whether the proposed development is acceptable.
- 3.10 The information required will need to be sufficient for us to determine:
- the existence or otherwise of contamination;
 - the nature of the contamination and the risks it may pose; and
 - whether these can be satisfactorily reduced to an acceptable level.
- Please refer to Annex 2 of PPS23 for further details.
- 3.11 The identification and assessment of land contamination issues is to be carried out by a qualified and experienced consultant, in consultation with the Council's Environmental Health Service. The contamination report is to be submitted with your planning application so that contamination issues can be assessed at the planning application stage and any necessary remediation measures secured through conditions or a Section 106 legal agreement.
- 3.12 The Council's Contaminated Land Strategy sets out how we will:
- deal with contaminated land;
 - make information available to the public; and
 - implement the requirements of the Part IIa of the Environmental Protection Act 1990 and Environment Act 1995. This and other documents are available on the Council's website (www.camden.gov.uk/contaminatedland) and should be referred to where contamination is a potential issue.
- 3.13 If there is any existing contamination (or potential risk of contamination) to ground or surface water or to land with statutory nature conservation designation, either from the existing state of land or from proposed

works, the Environment Agency must be informed and their consent obtained to any works. The English Heritage Archaeological Section should be contacted where contaminated land is included within an Archaeological Priority Area.

Archaeological Priority Area

As specified in the Camden Proposals Map, and Map 4 of the Camden Development Policies, to help protect archaeological remains that might be affected by development. See policy DP25 Conserving Camden's Heritage of the Camden Development Policies for further guidance on the borough's Archaeological Priority Areas.

- 3.14 Your report should comply with the policies and advice given in PPS23 and its annexes. There are also various best practice documents and British Standards that should be followed. The London Boroughs have produced a local guidance document titled *Contaminated Land: A Guide to Help Developers Meet Planning Requirements*. This document provides guidance on what information should be contained within a contamination report and is available on Camden's website.

Supporting documents

PPS23	<p>Planning Policy Statement 23: Planning and Pollution Control. Office of the Deputy Prime Minister, November 2004. www.odpm.gov.uk</p> <p>In particular Annex 2 should be referred to as this section deals specifically with contaminated land issues. The policies and advice contained in PPS23 is not repeated in this guidance and therefore should be consulted for detailed guidance.</p>
Camden Council Website	<p>Information on the Council approach to management of land contamination, information on historical land uses in the Borough and a copy of the London Borough's 'Guide for Developers on Contaminated Land'.</p> <p>http://www.camden.gov.uk/contaminatedland</p>
Department of Food, Environment and Rural Affairs	<p>has published a number of documents on land contamination. These can be found at:</p> <p>www.defra.gov.uk/environment/land/contaminated/index.htm</p>
Environment Act 1995	<p>Available from Stationary Office:</p> <p>www.opsi.gov.uk/acts/acts1995/Ukpga_19950025_en_1.htm</p>

Useful Contacts

Camden Environmental Health Service (Contaminated Land) web page www.camden.gov.uk/contaminatedland has more information on the Council's approach to contaminated land.

English Heritage www.english-heritage.org.uk can provide advice on the approach to contaminated land within Archaeological Priority Areas.

4 Noise and vibration

KEY MESSAGES:

We will ensure that noise and vibration is controlled and managed to:

- Limit the impact of existing noise and vibration sources on new development; and
- Limit noise and vibration emissions from new development.

- 4.1 The impact of noise and vibration can have a major affect on amenity and health and can severely affect people's quality of life.
- 4.2 Policy *DP28 – Noise and Vibration* of the Camden Development Policies aims to ensure that noise and vibration is controlled and managed. It sets out the Council's thresholds for noise and vibration and goes beyond the thresholds set out in Planning Policy Guidance 24: Planning and noise (see below). DP28 contains noise/vibration thresholds for the day, evening and night.



How can the impact of noise and vibration be minimised?

4.3 The main sources of noise and vibration in Camden are generated from:

- Road traffic;
- Railways;
- Industrial uses;
- Plant and mechanical equipment;
- Entertainment uses (such as bars and nightclubs); and
- Building sites.

4.4 For details on how to manage noise and vibration from building sites see section 8 on Construction management plans.

Ways to minimise the impact of noise on your development

Design

- Locating noise sensitive areas/rooms away from the parts of the site most exposed to noises;
- Creating set backs;
- Designing the building so its shape and orientation reflect noise and protect the most sensitive uses;
- Stacking similar rooms (such as kitchens and living rooms) above each other; and
- Positioning non-residential uses closer to the noise source in mixed use developments.

Built fabric

- Insulating and soundproofing doors, walls, windows, floors and ceilings;
- Sealing air gaps around windows;
- Double glazing;
- Including architectural fins (where appropriate); and
- Laminated glass.

Landscaping and amenity areas

- Incorporating planting, landscaping, fencing/barriers and solid balconies to reflect sound.

4.5 Our preference for controlling noise:

- Begins with attempting to reduce noise at its source;
- Then to separate the development (or at least the sensitive parts e.g. habitable rooms) from the source or to use noise barriers; and

- Finally construction materials such as acoustic glazing should be used.

- 4.6 When you consider measures to minimise noise and vibration you also need to take into account our policies on design and crime prevention. You should consider the implications of noise and vibration at the beginning of the design process to enable prevention or mitigation measures to be designed into the scheme. Poorly designed schemes will not be acceptable.
- 4.7 Proposals will be expected to include appropriate attenuation to alleviate or mitigate the impact of noise and vibrations to an acceptable level, as set out in policy *DP28 – Noise and vibration* of the Camden Development Policies. Where appropriate, the Council will consider the cumulative impact of noise sources (for example, air conditioning units).
- 4.8 Everyday domestic activities can also generate noise, e.g. communal entrances and roof terraces. Sufficient sound insulation must be provided between dwellings to prevent the transmission of noise between them, particularly in conversions where new partition walls are often deficient in terms of insulation.

Ways to mitigate noise emitted by your development

Engineering

- Reducing the noise emitted at its point of generation (e.g. by using quiet machines and/or quiet methods of working);
- Containing the noise generating equipment (e.g. by insulating buildings which house machinery and/or providing purpose-built barriers around the site); and
- Protecting any surrounding noise-sensitive buildings (e.g. by improving sound insulation in these buildings and/or screening them by purpose-built barriers).

Layout

- Ensuring an adequate distance between source and noise-sensitive buildings or areas; and
- Screening by natural barriers, buildings, or non-critical rooms in the development.

Administrative

- Limiting the operating time of the source;
- Restricting activities allowed on the site; and
- Specifying an acceptable noise limit.

- 4.9 If your proposal could result in noise and vibration that would cause an unacceptable impact to nearby uses or occupiers, or proposes sensitive uses near a source of noise or vibration and cannot be adequately attenuated then planning permission is likely to be refused.

Developments will be assessed against the thresholds set out in policy DP28.

How will the Council manage the impact of noise and vibration?

- 4.10 Detailed acoustic/noise and vibration information in the form of a report will be required if your development proposes:
- The installation of plant, ventilation or air conditioning equipment;
 - A use that will create significant noise (e.g. new industry, nightclub)
 - A noise-sensitive development in an area where existing noise sources are present (e.g. an existing industrial site, busy road, railway line);
 - A use that will generate a significant amount of traffic.

Noise sensitive developments

Those developments located near sources of noise, including housing, schools and hospitals as well as offices, workshops and open spaces.

- 4.11 The list above is a guide only and you may need to provide noise and vibration information for other developments depending on the circumstances of the site or proposal.
- 4.12 The appropriate amount and detail of information required will depend on the specific circumstances of your proposal. At a minimum you will be expected to provide the following information to support your application:
- Description of the proposal;
 - Description of the site and surroundings, a site map showing noise and vibration sources, measurement locations and noise receivers;
 - Background noise levels;
 - Details of instruments and methodology used for noise measurements (including reasons for settings and descriptors used, calibration details);
 - Details of the plant or other source of noise and vibration both on plan and elevations and manufacturers specifications;
 - Noise or vibration output from proposed plant or other source of noise and vibration, including:
 - Noise or vibration levels;
 - Frequency of the output;
 - Length of time of the output;
 - Features of the noise or vibration e.g. impulses, distinguishable continuous tone, irregular bursts;
 - Manufacturers' specification of the plant, supporting structure, fixtures and finishes;

- Location of neighbouring windows (and use if applicable);
- Details of measures to mitigate noise or fume emissions and vibration;
- Details of any associated work including acoustic enclosures and/or screening;
- Cumulative noise levels of all the proposed and existing units;
- Hours/days of operation.

4.13 Where appropriate the Council will seek a legal agreement to control or reduce noise levels where this is unlikely to be met through the use of a condition attached to a planning permission.

Further information

PPG24	<p>Planning Policy Guidance Note 24: Planning and Noise provide Government guidance on noise. This guidance defines four Noise Exposure Categories (A-D) and outlines what should be done if your proposal falls into one of these categories. Advice is also provided on how to address noise issues and secure amelioration methods through the planning system.</p> <p>www.communities.gov.uk/publications/planningandbuilding/ppg24</p>
DEFRA	<p>The Department of Food, Environment and Rural Affairs provide a number of publications on noise and noise related issues.</p> <p>www.defra.gov.uk</p>
Camden Council website	<p>Camden's Environmental Health web pages provide strategic information on noise in Camden including the results of monitoring that has taken place</p> <p>www.camden.gov.uk/noise</p> <p>Also see <i>Camden's Guide for Contractors working in Camden</i> on the Camden website.</p>
The Mayor's Ambient Noise Strategy	<p>This provides details on the Mayor of London's approach to reducing noise in London.</p> <p>http://legacy.london.gov.uk/mayor/strategies/noise/docs/noise_strategy_all.pdf</p>

5 Artificial light

KEY MESSAGES:

When considering proposals for artificial lighting the Council will consider the:

- need for planning permission;
- need for the lighting;
- design of the lighting; and
- impacts on biodiversity.

5.1 This section provides guidance on the Council's approach to artificial lighting. This guidance should be read in conjunction with policy *DP26 Managing the impact of development on occupiers and neighbours* of the Camden Development Policies.

5.2 Artificial lighting has many benefits, however excessive or poorly designed lighting can be damaging to the environment and result in visual nuisance including by:

- Having a detrimental impact on the quality of life of neighbouring residents;
- Significantly changing the character of the locality;
- Altering wildlife and ecological patterns; and
- Wasting energy.



5.3 Nuisance often occurs due to glare and 'light spillage' because the lighting has been poorly designed.

5.4 *Planning Policy Statement 23 (PPS23): Planning and Pollution Control* enables the Council to take account of the possible obtrusive impact of

lighting and paragraph 3.25 of PPS23 permits us to use conditions or planning obligations to protect the environment.

WHAT IS LIGHT POLLUTION?

Light pollution is the term used to describe any adverse effect of artificial lighting. Light pollution includes:

- Glare - the uncomfortable brightness of a light source when viewed against a dark sky;
- 'Light trespass' – the spread of light spillage the boundary of the property on which a light is located; and
- 'Sky glow' - the orange glow we see around urban areas caused by a scattering of artificial light by dust particles and water droplets in the sky.

Will planning permission be required for lighting?

- 5.5 Structures supporting, and the installation of lighting equipment may require planning permission, especially if they are substantial or affect the external appearance of a building. Planning permission is not required for the carrying out of maintenance which affects only the interior of the building or does not materially affect the external appearance of the building. Temporary lighting schemes generally do not require planning permission.
- 5.6 Planning permission is normally required for:
- the erection of columns to support lighting or other similar structures;
 - the erection of substantial structures or installations that affect the external appearance of a property;
 - external lighting as part of an industrial or commercial scheme;
 - new lighting structures or works which are integral to other development requiring planning permission; and
 - illuminated advertisements, although there are some exceptions such as those indicating medical services and some commercial advertisements on the front of business premises (See Camden Planning Guidance 1 - Design).
- 5.7 You are advised to check with the Planning Service before installing any lighting scheme. You will need to provide the following details:
- Number of lights;
 - Likely lux output;
 - The height of the lighting columns (if applicable); and
 - The area to be lit.
- In accordance with policy DP26 in Camden Development Policies, schemes that would cause harm to amenity will not be permitted.

What information should accompany a planning application?

- 5.8 Where planning permission for lighting schemes is required you will need to submit the information required by paragraph 5.7. We will also expect the submission of the following additional information:
- The design of lights and infrastructure;
 - A plan or plans showing layout of the lights, including orientation of the beams of light;
 - Lighting levels, lumen details, lamp type, wattage;
 - Control systems including types and location of sensors, times lighting will be on; and
 - The need for the lighting, that is, an explanation of what activity the lighting is supporting.

- 5.9 All light installations must be energy efficient and 'Dark Sky' compliant, thereby not causing obtrusive light pollution, glare or spillage (by reference to the British Astronomical Association Campaign for Dark Skies).

Lumen

This is a measurement of the light output from a light source.

Lux

This is a measurement of the light intensity falling on a surface.

Dark sky compliance

To design lighting schemes in order to avoid lighting that extends beyond its intended target and would be inefficient and waste energy. It also avoids glare and light in unwanted areas.

What should you consider when designing lighting?

General lighting requirements

- 5.10 To minimise obtrusive light you should follow the general principles taken from the Institution of Lighting Engineers, Guidance Notes for the Reduction of Obtrusive Light (2005):
- a) Lighting is to be directed downwards wherever possible to illuminate its target. If there is no alternative to up lighting, then the use of shields will help reduce the spill of light to a minimum. Up lighting is a particularly bad form of obtrusive light and contributes to sky glow.
 - b) Lighting is to be designed to minimise the spread of light near to, or above, the horizontal. Again, any light that shines above the horizontal line of the light adds to the sky glow effect.
 - c) Lighting should be designed to the correct standard for the task. Over-lighting is a cause of obtrusive light and also represents a waste of money and energy.
 - d) The main beam angle of all lights proposed directed towards any potential observer is to be kept below 70°. It should be noted that the higher the mounting height, the lower the main beam angle could be. This will help reduce the effect of glare and light spill on neighbouring dwellings, passing motorists, pedestrians, etc.
 - e) Lighting should be directed to minimise and preferably avoid light spillage onto neighbouring properties. Wherever possible use floodlights with asymmetric beams that permit the front glazing to be kept at, or near parallel to, the surface being lit.
 - f) The lights used should be the most efficient taking into account cost, energy use, and the purpose of the lighting scheme required. All lighting schemes should meet British Standards.
- 5.11 We will seek to ensure that artificial lighting is sited in the most appropriate locations to cause minimal disturbance to occupiers and wildlife, while still illuminating the intended area. This includes considering any occupiers located above the lighting source.

- 5.12 Consideration should be given to lighting associated with buildings of special historic and architectural interest in order to protect their special interest and that of the wider area. This applies both to the lighting of such buildings and the impact of the lighting installation when seen by day.

Lighting Infrastructure

- 5.13 The visual effect of lighting infrastructure when viewed in the daytime needs to be considered. These elements can include junction boxes, poles, brackets and cabling. The design, size and colours of the physical infrastructure needs to be carefully considered and should relate to the building it is located on.

Use

- 5.14 The design of lighting should be specific to the use it supports (e.g. for recreation facilities). Hours of lighting should be limited to the times needed to support the use (both in summer and winter) and be restricted through the use of timers and sensors where relevant (e.g. for security lighting).
- 5.15 The Council may seek to secure conditions to any planning permission in order to control the hours of operation of any approved lighting scheme.

Why do impacts on biodiversity need to be considered?

- 5.16 Artificial lighting can often impact on wildlife habitats, particularly where lighting is proposed in open spaces, for example to provide lighting for sports courts and pitches or to improve security (such as along Regents Canal). Artificial lighting can have particularly severe implications for the natural daily rhythms of a range of animals and plants, and therefore sites and habitats identified for their nature conservation value should not be adversely affected by lighting. (See the Local Development Framework Proposals Map for a list of nature conservation sites).
- 5.17 If your proposed lighting is located within or adjacent to areas of open space we will expect that any biodiversity impacts arising from the installation or operation of the lighting is mitigated. This may require a survey to identify if there are any nesting birds in the immediate vicinity or if it is close to an area where bats may hibernate or emerge at feeding time. This is particularly important if the operation of the lighting extends beyond dusk, which is roughly the time bats will come out to forage. See Camden Planning Guidance 3 – Sustainability for further information on our approach to protecting biodiversity.
- 5.18 You should contact Camden's Biodiversity Officer at an early stage to discuss measures to mitigate the impact of lighting schemes on biodiversity.

Further information

PPS23	Planning Policy Statement 23: Planning and Pollution Control. Office of the Deputy Prime Minister, November 2004. www.odpm.gov.uk
DEFRA	The Department of Food, Environment and Rural Affairs has published a number of documents on light pollution. These can be found at: http://www.defra.gov.uk/environment
Environment Act 1995	Available at the Stationary Office: www.opsi.gov.uk/acts/acts1995/Ukpga_19950025_en_1.htm

Useful Contacts

Camden Planning Service www.camden.gov.uk/planning

The Institution of Lighting Professionals www.theilp.org.uk promotes good practice and excellence in lighting schemes.

The Chartered Institute of Building Services Engineers www.cibse.org provides information on appropriate lighting designs and mechanisms.

6 Daylight and sunlight

KEY MESSAGES:

- We expect all buildings to receive adequate daylight and sunlight.
- Daylight and sunlight reports will be required where there is potential to reduce existing levels of daylight and sunlight.
- We will base our considerations on the Average Daylight Factor and Vertical Sky Component.

6.1 Access to daylight and sunlight is important for general amenity, health and well-being, for bringing warmth into a property and to save energy from reducing the need for artificial lighting and heating. The Council will carefully assess proposals that have the potential to reduce daylight and sunlight levels for existing and future occupiers.

6.2 This guidance relates to:

- Camden Core Strategy policy CS5 - *Managing the Impact of Growth and Development*;
- Core Strategy policy CS14 - *Promoting high quality places and conserving our heritage*; and
- Policy DP26 – *Managing the impact of development on occupiers and neighbours* of the Camden Development Policies.

DP26 sets out how the Council will protect the quality of life of building occupiers and neighbours by only granting permission for development that does not cause harm to amenity.

When will a daylight/sunlight report be required?

6.3 The Council expects that all developments receive adequate daylight and sunlight to support the activities taking place in that building.

6.4 A daylight and sunlight report should assess the impact of the development following the methodology set out in the most recent version of Building Research Establishment's (BRE) "Site layout planning for daylight and sunlight: A guide to good practice". Reports may be required for both minor and major applications depending on whether a proposal has the potential to reduce daylight and sunlight levels. The impact will be affected by the location of the proposed development and its proximity to, and position in relation to, nearby windows.

WHAT DOES THE COUNCIL REQUIRE?

The Council will require a daylight and sunlight report to accompany planning applications for development that has the potential to reduce levels of daylight and sunlight on existing and future occupiers, near to and within the proposal site.

Daylight and sunlight reports should also demonstrate how you have taken into consideration the guidance contained in the BRE document on passive solar design; and have optimised solar gain. Please refer to the BRE guidance on daylight and sunlight.

- 6.5 While we strongly support the aims of the BRE methodology for assessing sunlight and daylight we will view the results flexibly and where appropriate we may accept alternative targets to address any special circumstances of a site. For example, to enable new development to respect the existing layout and form in some historic areas. This flexible approach is at the Council's discretion and any exception from the targets will be assessed on a case by case basis.

Daylight

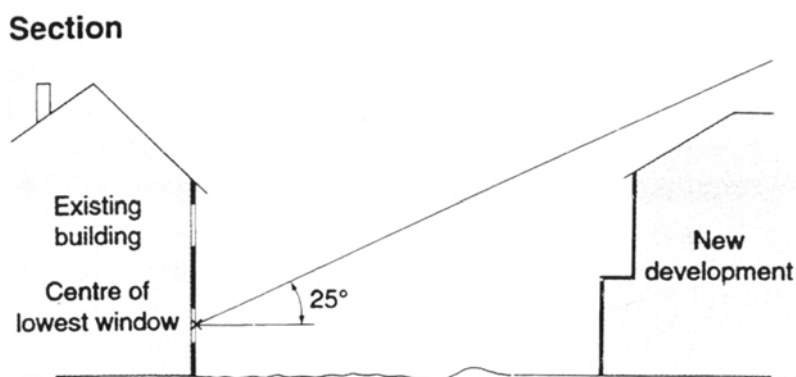
- 6.6 We will aim to minimise the impact of the loss of daylight caused by a development on the amenity of existing occupiers and ensure sufficient daylight to occupiers of new dwellings taking in account overall planning and site considerations. If your proposal will have an unreasonable impact on amenity the planning application will be refused. When assessing daylight issues, we will use the guidelines and methods contained in the BRE's *Site layout planning for daylight and sunlight: A guide to good practice*.
- 6.7 There are two quick methods that can be used to assess access to daylight:

Daylight to new development

- project a 25 degree line, starting 2m above ground level from a wall of your proposed development;
- if none of the existing surrounding buildings extend above this line, then there is potential for good daylighting to be achieved in the interior of your new development.

Daylight to existing development

- project a 25 degree line from the centre of the lowest window on the existing building;
- if the whole of your new development is lower than this line then it is unlikely to have a substantial effect on the daylight enjoyed by occupants in the existing building.



Source: BRE, Site layout planning for daylight and sunlight: A guide to good practice.

- 6.8 For either test, if buildings extend above the 25 degree line a more detailed test needs to be carried out to fully assess either the loss of daylight in existing buildings or the level of daylight achievable in the new development. The two most common measurements of daylight of the more detailed test are the Vertical Sky Component (VSC) and the Average Daylight Factor (ADF).

Vertical Sky Component

The amount of light striking the face of a window

- 6.9 The Vertical Sky Component is expressed as a ratio of the maximum value of daylight achievable for a completely unobstructed vertical wall. The maximum value is almost 40%. This is because daylight hitting a window can only come from one direction immediately halving the available light. The value is limited further by the angle of the sun. This is why if the VSC is greater than 27% enough sunlight should be reaching the existing window. Any reduction below this level should be kept to minimum.
- 6.10 Windows to some existing rooms may already fail to achieve this target under existing conditions. In these circumstances it is possible to accept a reduction to the existing level of daylight to no less than 80% of its former value. Any greater reduction than this is likely to have a noticeable affect on amenity. If this occurs then applications may be refused.

Average Daylight Factor

Average Daylight Factor is a measure of the level daylight in a room. It can be used to establish whether a room will have a predominantly daylight appearance. It provides light levels below which a room should not fall even if electric lighting is provided.

- 6.11 The Average Daylight Factor can be used as a measure to determine whether a room will receive adequate daylight (expressed as a percentage). The ADV takes into account the:
- net glazed area of windows;

- the total area of the room surfaces (ceiling, floor, walls, and windows);
 - the average reflectance; and
 - the angle of visible sky.
- 6.12 If a predominately daylit appearance is required, then the daylight factor should be 5% or more if there is no supplementary electric lighting, or 2% or more if supplementary electric lighting is provided. This figure should be as high as possible to enable occupiers to rely on as much natural light and not use artificial lighting, but as a minimum for dwellings the figures should be 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.
- 6.13 These minimum figures may not be applicable when measuring the impact of new buildings on existing dwellings as the simple preservation of minimum ADFs will not necessarily be seen as an indication of acceptability, especially if the VSC demonstrates a significant worsening in daylight levels. For existing dwellings the Council will consider the overall loss of daylight as opposed to the minimum acceptable levels of daylight. As the BRE guidance suggests, the readings will be interpreted flexibly as their aim is to support rather than constrain natural lighting. However, daylight is only one of the many factors in site layout design. Therefore, when applying these standards in Camden, we will take into consideration other site factors and constraints.
- 6.14 The calculation of the VSC and the ADF is complex. For full details on how these calculations are carried out you should refer to the most up to date version the BRE's "Site layout planning for daylight and sunlight: A guide to good practice". For more complex and larger developments we will expect a daylight study to be submitted with the planning application showing the windows that will be affected and provide before development and post development figures for VSC and ADF.
- 6.15 Other methods can be used to measure daylight and these can be incorporated in daylight and sunlight reports, where necessary, as a supplement to VSC and ADF measurements, such as the No Sky Line (NSL) test contained within BRE guidance.

Sunlight

- 6.16 The design of your development should aim to maximise the amount of sunlight into rooms without overheating the space and to minimise overshadowing.

WHAT DOES THE COUNCIL EXPECT?

New developments should be designed to provide at least one window to a habitable space facing within 90 degrees of south, where practical. This window should receive at least 25% of Annual Probable Sunlight Hours, including at least 5% of Annual Probable Sunlight Hours between 21 September and 21 March, where possible.

Annual Probable Sunlight Hours

The annual amount of sunlight a window receives in an average year.

- 6.17 The BRE's "Site layout planning for daylight and sunlight: A guide to good practice" provides guidance on access to sunlight in relation to:
- site layout, building orientation and overshadowing for new buildings;
 - protecting sunlight to existing buildings, and
 - new and existing gardens and open spaces.
- 6.18 Design for access to sunlight will be specific to the orientation of your site, and the specific design and uses within your proposed development. You should follow the detailed design requirements recommended in the "Sunlighting" section of the BRE document. The Council recognises that not all of the guidance contained within the BRE document, particularly orientation, can be adhered to in all developments due to the dense and constrained urban nature of Camden.

Other considerations**Right to Light**

- 6.19 The right to light is a legal right which one property may acquire over the land of another. If a structure is erected which reduces the light to an unobstructed property to below sufficient levels this right is infringed. A right to light can come into existence if it has been enjoyed uninterrupted for 20 years or more, granted by deed, or registered under the Rights of Light Act 1959. Planning permission does not override a legal right to light, however where a right to light is claimed, this is a matter of property law, rather than planning law. The Council will have no role or interest in any private dispute arising and it will be for the owner or occupier affected to seek a legal remedy.

Supporting documents

- 6.20 For further information on daylight and sunlight please refer to:
Building Research Establishment (BRE). Site layout planning for daylight and sunlight: A guide to good practice.
Copies of this are available directly from BRE.

BRE Bookshop, 151 Roseberry Avenue, London, EC1R 4GB
020 7505 6622
brebookshop@emap.com
www.constructionplus.co.uk

9 Access for all

KEY MESSAGES:

- Well designed, accessible buildings and spaces ensure that local services and facilities are accessible to everyone and increase equality of opportunity and social inclusion. We will seek to ensure the highest standards of access and inclusion in Camden's built environment and public realm.
- We expect all development of buildings and places, including changes of use and alterations to or refurbishment of existing buildings where practical and reasonable, to be designed to be accessible and useable by all to promote equality of opportunity.
- Access should be considered at the beginning of the design process.

- 9.1 A successfully accessible and inclusive environment is one that everyone can benefit from by being able to move freely, independently and uninhibited within the built environment regardless of age or disability.
- 9.2 This guidance applies to all development in Camden that may affect the accessibility of buildings and spaces.
- 9.3 All new developments should incorporate a suitable level of access for everyone and be inclusively designed.
- 9.4 Changes of use, alterations and extensions to existing buildings and spaces should, where practicable and reasonable, be designed to improve access for all.
- 9.5 The planning system is not able to require existing buildings or areas to retrospectively improve access where alterations are not being made.
- 9.6 For developments involving housing, reference should also be made to Camden Development Policies policy DP6 – *Lifetime homes & wheelchair housing* and Camden Planning Guidance on Lifetime homes and wheelchair housing. The accessibility needs are lower for certain sectors of the population, such as students, and so the Council will assess each development proposal on its own merits to determine a suitable level of accessible accommodation to be provided.
- 9.7 Guidance on the provision of parking spaces for drivers with disabilities is contained in Camden Planning Guidance on Vehicle access.
- 9.8 This guidance provides general advice on accessibility and advises on further sources of more detailed information. In particular this guidance relates to Core Strategy policy CS14 - *Promoting High Quality Places and conserving our heritage*; CS6 - *Providing quality homes* and policy DP29 - *Improving access* of the Camden Development Policies.
- 9.9 It is more effective to consider access arrangements from the beginning of the design process as they are an integral aspect of building design.

Overcoming access barriers at a later stage in the project can result in a building or space that is not inclusive and may be inaccessible to many people.

- 9.10 Applicants are advised to consult the Council's Building Control Service at an early stage in the formulation of development proposals to ensure conformity with the relevant requirements relating to access. Satisfying some of the requirements of Part M of the building regulations can affect the size and design of the building and needs to be taken into account at the early design stage.
- 9.11 The following table sets out four key principles which, if put together successfully, should help create an accessible environment:

Principles of access

Key Principle	Features to be considered
1. Approach Parking	<ul style="list-style-type: none"> • Level or adequately ramped • Sufficient width and obstacle free • Firm, durable, slip resistant surfaces • Well lit and clearly identified • Dropped kerbs with tactile surfaces • Contrasting colour on bollards and street furniture • Suitably designed and marked spaces • Spaces as close as possible to all accessible entrances • Dropped kerbs onto a level obstruction free route to the accessible entrance • Appropriately located and signed dropping off point
2. Entrances Lobbies Receptions	<ul style="list-style-type: none"> • Level or adequately ramped and stepped if necessary with appropriately designed handrails • Ramped gradients as shallow as possible • Level area in front of the door • Level threshold • Canopy over manual doors • Easy to open doors • Provision of electronic entrance doors • Sufficiently wide doors • Doors to have contrast. • Need to be of a size and shape to allow a wheelchair user to move clear of one door before opening the second door • Floor surface that does not impede movement, avoid dips or changing surfaces, including mats • Provide hearing enhancement systems and lowered wheelchair accessible counters. • Should be easily identifiable
3. Levels Circulation	<ul style="list-style-type: none"> • Provide a lifting device and suitable stairs to all storeys above and below ground • Ramps for internal changes within a storey • Any raised areas to be accessible to everyone • Adequately wide corridors. • Sufficiently wide doors • Clear, well lit signs • Colour contrast within the building • Corridors free of obstructions
4. Facilities	<ul style="list-style-type: none"> • Adequate provision of wheelchair accessible unisex toilets • Provision of an enlarged cubicle in separate sex toilets • Where shower and changing facilities are included provide wheelchair accessible facilities • Provision of wheelchair accessible hotel bedrooms • Appropriately designed sockets and switches

Additional information

- 9.12 Level access should be provided to the principal entrance in all developments, and is a requirement for all new dwellings. Any new works must not make access any worse than what may have previously existed, in line with Approved Document M of the Building Regulations.
- 9.13 The design of routes around buildings should be clear and free from obstruction, especially to the entrance. Any obstructions should be made clear and avoidable, for example by changes in surface texture.
- 9.14 The above access principles apply mainly to non-residential developments – although the first two will also be applicable to residential developments. In the case of residential development, proposals must meet Lifetime Home Standards as set out in policy *DP6 – Lifetime Homes and wheelchair homes* of the Camden Development Policies. Reference should also be made to Camden Planning Guidance 2 and the section on Lifetime Homes and wheelchair housing.

Design and Access Statements

- 9.15 A Design and Access Statement is a short written and illustrated report which accompanies and supports a planning application. It explains the thinking behind a design and its context in a proposal in a structured way. A Design and Access Statement should:
- Show how the applicant has analysed the site, its setting, and as a result of this assessment, formulated and applied design principles to achieve a good, inclusive design for buildings and public spaces;
 - Include the specific needs of disabled people, by showing how they have been integrated into the proposed development, and how inclusion will be maintained and managed; and
 - Be flexible, adaptable and be able to change with the design of the proposal should any amendments or changes occur.
- 9.16 The level of detail appropriate in an access statement will depend on the size, nature and complexity of the proposal, as a minimum, all should include:
- A short illustrated statement setting out the site and context appraisal, the purpose of the proposed development, a list of design principles and a description of the proposal explaining how the design responds to the appraisal and design principles;
 - A plan of the site, surrounding area or natural form and key features as identified in the appraisal;
 - Annotated sketches and photographs;
 - Important elements of the context that inform the design principles;
 - Plans and elevations of the proposal;
- 9.17 The following points should be taken into account when preparing a Design and Access statement:

- A brief explanation of the applicant's approach to access, with particular reference to the inclusion of disabled people;
- A description of how the sources of advice on accessibility and technical issues will be, or have been, followed;
- Details of any consultations undertaken or planned, including the number of users, particular user need groups (for example, visually impaired, deaf or hard of hearing, ethnic groups, people with learning disabilities and mental health) and the degree to which the process has been influenced by it;
- Details of any professional advice that has been followed, or will be sought, including recommendations from access audits or appraisals;
- An explanation of any specific issues affecting accessibility to, or within, the particular environment being considered, and/or service provision, employment or educational opportunities.
- Details of access solutions adopted to overcome any issues, including those which deviate from recognised good practice;
- Details of the management and maintenance practices adopted, or to be adopted, to maintain features enhancing accessibility (for example, lighting, colour and luminance contrast, door closing forces etc), specialist equipment (for example, induction loops, audible and visual fire alarm systems etc), and staff training; and
- A plan illustrating features such as routes in, out and around the outside of the building, vertical and horizontal circulation routes, positions of accessible car parking bays, the location of public transport, and any other features relevant to the proposal.

9.18 Where good practice cannot be met, the Access Statement should say why this is the case, set out the implications for users, and explain what other measures are being taken to ensure access is provided to the facilities available. See Further Information at the end of this section for links to more detailed guidance.

Listed buildings

- 9.19 Design and access statements are also required for a listed building consent. Where a planning application is submitted in parallel with an application for listed building consent a single combined statement can be submitted which should address the requirements for both.
- 9.20 Measures to facilitate dignified and easy access to and within listed buildings can often be sensitively incorporated without damage to their special architectural or historic interest. However, the Disability Discrimination Act 1995 does not override other legislation such as listed building or planning legislation. Listed Building Consent will almost always be required for works to improve access and in formulating proposals; applicants are encouraged to undertake early discussions with the Council.

- 9.21 English Heritage has produced guidance on this topic titled Easy Access to Historic Buildings (see Further Information for the link). Additional information is also contained in Circular 01/06.

Other considerations

- 9.22 Applicants should note that Design and Access Statements differ from the requirements for Access statements set out in Approved Document M of the Building Regulations, which are only required when specific building control regulations can not be met. Approved Document M of the Building Regulations sets out the requirements to ensure access to and use of a building's facilities are accessible to all.
- 9.23 It may also be appropriate to combine the Design and Access Statements with other statements requested in other sections of Camden Planning Guidance, provided that the requirements of all such statements are adequately addressed.
- 9.24 Part 3 of the Disability Discrimination Act 1995 gives disabled people a right of access to goods, facilities and services. This requires service providers to:
- Alter a barrier feature so that it no longer has effect;
 - Provide a reasonable means of avoiding that feature; or
 - Provide a reasonable alternative method of making the service available.
- 9.25 These requirements apply to all buildings where services are provided to the public and to transportation infrastructure.

Further information

<p>Design and Access Statements</p>	<p>Department for Communities and Local Government (March 2010) Guidance on information requirements and validation: www.communities.gov.uk/publications/planningandbuilding/validationguidance</p> <p>ODPM publication: Planning and Access for Disabled People: A Good Practice Guide www.communities.gov.uk/publications/planningandbuilding/planningaccess</p> <p>Department for Communities and Local Government Circular 01/2006: Guidance on Changes to the Development Control System: Section 3 provides guidance on the legislative position and information required www.communities.gov.uk/publications/planningandbuilding/circularcommunities2</p> <p>The Commission for Architecture and the Built Environment (CABE) 'Design and access statements: how to write, read and use them' www.cabe.org.uk</p> <p>Mayor of London's Supplementary Planning Guidance: Accessible London: Achieving an Inclusive Environment http://legacy.london.gov.uk/mayor/strategies/sds/docs/spg_accessible_london.pdf</p>
<p>Access and the historic environment</p>	<p>English Heritage have published guidance on 'Easy Access to Historic Landscapes' and 'Easy Access to Historic Buildings' which can be found on their website at: www.english-heritage.org.uk/publications/easy-access-to-historic-buildings/</p>
<p>Lifetime Homes and wheelchair housing standards</p>	<p>Lifetime Homes www.lifetimehomes.org.uk</p> <p>Accessible London: Achieving an Inclusive Environment, GLA (April 2004)</p>

