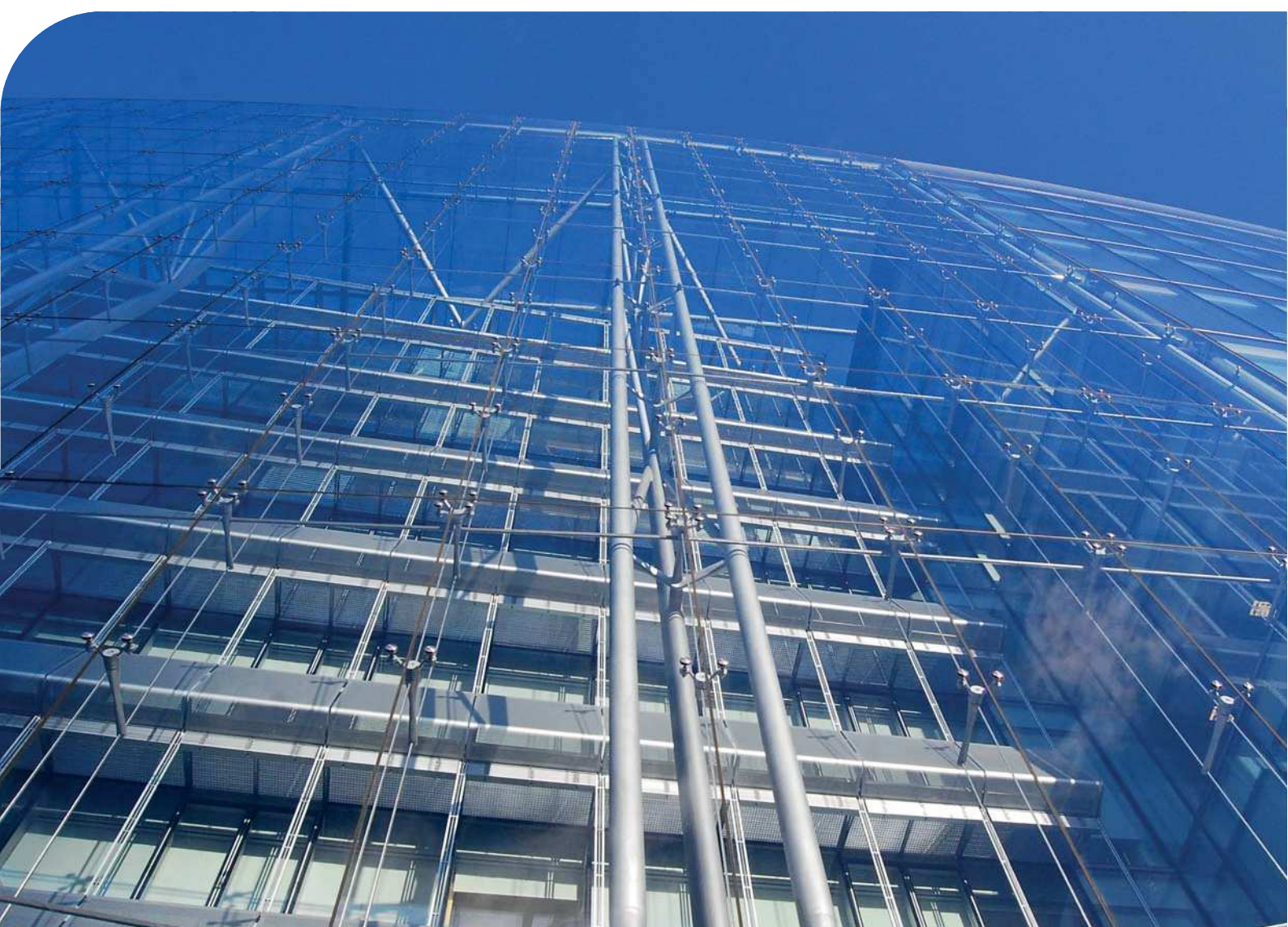


Camden Planning Guidance

Design

London Borough of Camden

CPG **1**



July 2015

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.

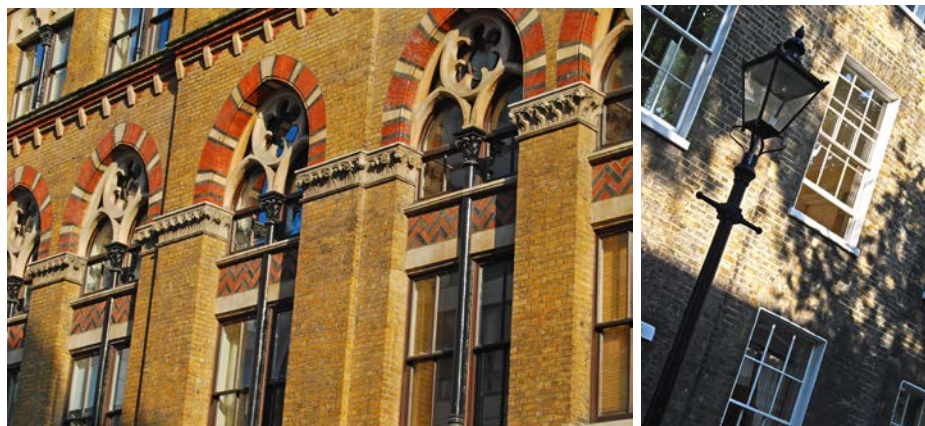
- We will only permit development within conservation areas that preserves and enhances the character and appearance of the area
- Our conservation area statements, appraisals and management plans contain more information on all the conservation areas
- Most works to alter a listed building are likely 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 are 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.

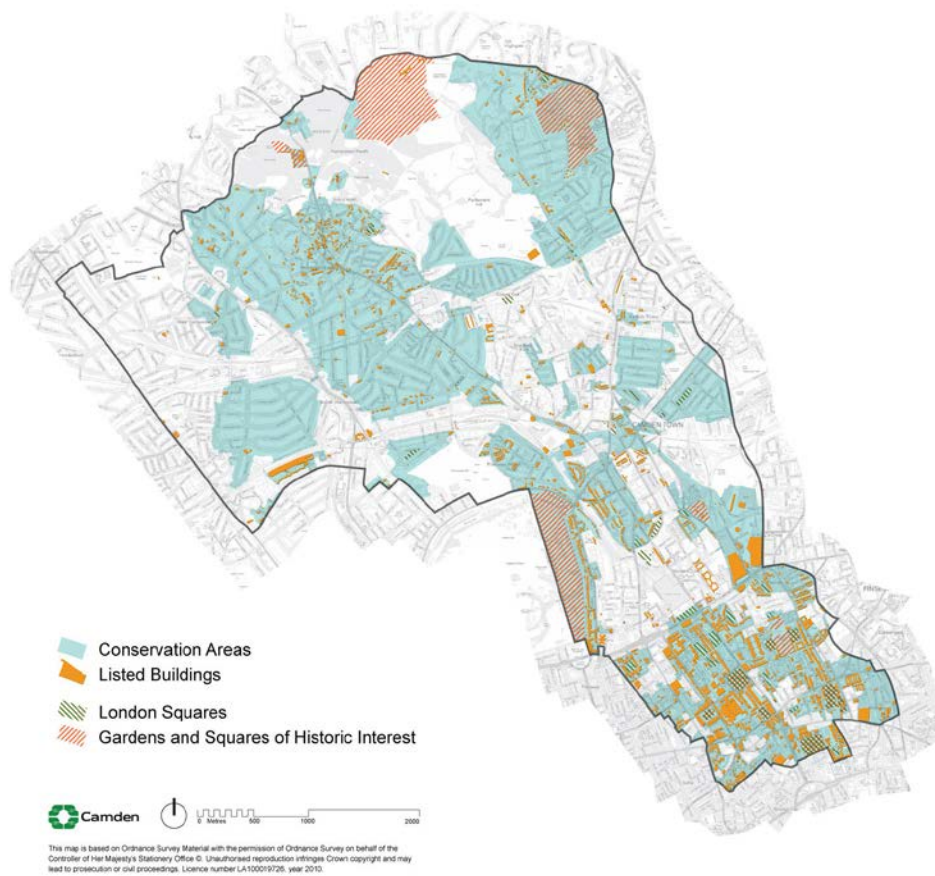


Conservation Areas

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.

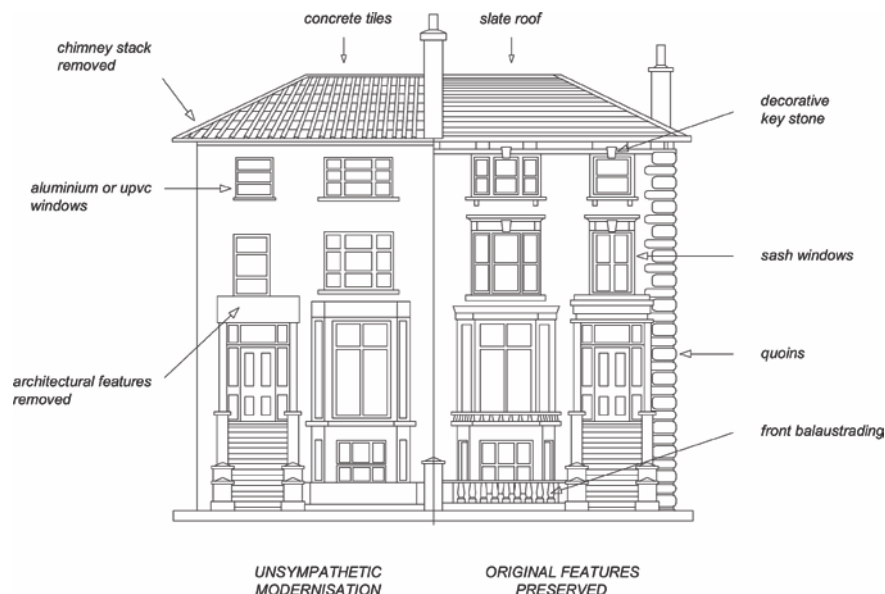
External pipework

- 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

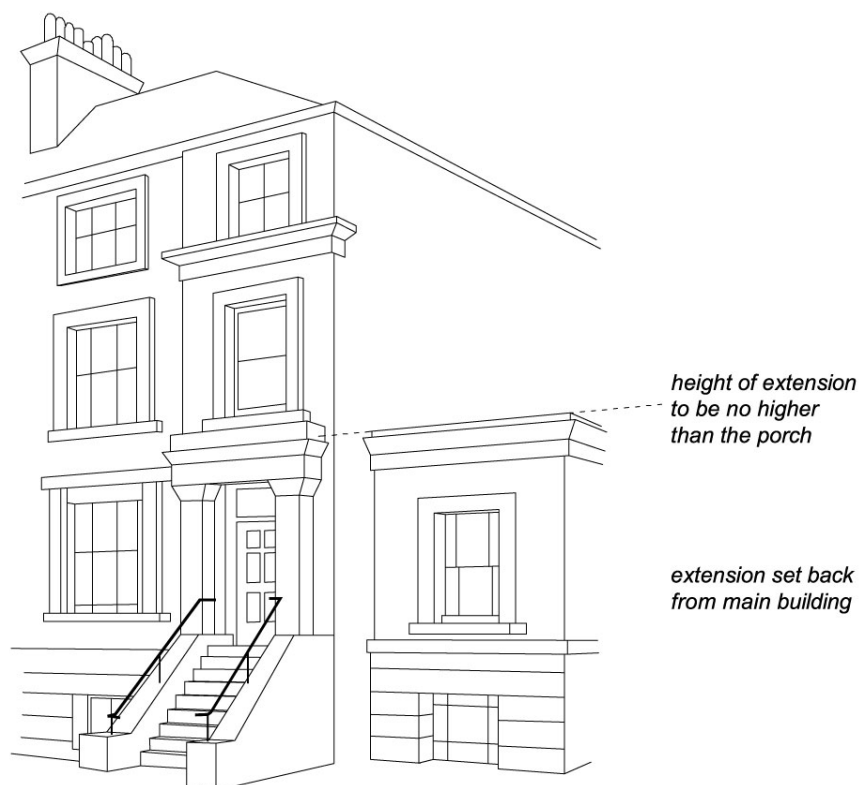
- 4.12 In order for new extensions to be subordinate to the original building, their heights should respect the existing pattern of rear extensions, where they exist. Ground floor extensions are generally considered preferable to those at higher levels. The maximum acceptable height of an extension should 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).

6 Landscape design and trees

KEY MESSAGES

- Camden's trees and green spaces are integral to its character.
- Landscape design and green infrastructure should be fully integrated into the design of schemes from the outset.
- We require a survey of existing trees and vegetation to be carried out prior to the design of a scheme.

- 6.1 This guidance sets out how to protect trees and vegetation and design high quality landscapes in conjunction with development proposals to ensure an attractive, safe, accessible, sustainable and ecologically diverse environment.
- 6.2 This chapter sets out:
- how existing trees and landscape should be protected;
 - what specific protection is given to some trees;
 - how new landscaping should be incorporated into developments; and
 - considerations for specific landscaped areas and types of landscaping.
- 6.3 The green landscape of the Borough is formed by parks and open spaces, railway and canal corridors, trees, gardens, green walls and roofs. These landscape components provide Camden's green infrastructure and play a key role in maintaining the local climate, reducing storm water run off, increasing biodiversity, providing space for urban food production and providing public enjoyment.
- 6.4 We expect landscape design and the provision of green infrastructure to be fully integrated into the design of development proposals from the beginning of the design process.
- 6.5 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 DP24 Securing high quality design.

Where does this guidance apply?

- 6.6 This guidance applies to all proposals affecting or including landscape design on and around buildings and proposals relating to on and off site trees.

How should existing Trees and Landscape be protected?

Benefits of retaining vegetation and trees

- 6.7 Vegetation of all types is at a premium in Camden given the Borough's dense urban environment. Camden's tree canopy and other existing vegetation are integral to its character. If you maintain existing trees and

vegetation on a development site it will help provide a sense of maturity to a development and integrate a development into its setting. Existing trees and vegetation are a key component in adapting to climate change and conserving biodiversity. See CPG3 Sustainability chapters on Climate change adaptation and Biodiversity. Existing species can serve as an indicator of what might be successfully grown on the site when selecting additional plants. The retention of existing mature trees and vegetation also make an important contribution to the sustainability of a project. For example by reducing the impacts and energy demand associated with the provision of new plants such as in their transportation and the irrigation required.

How should existing trees and vegetation be protected?

- 6.8 We will require a survey of existing trees and vegetation to be carried out prior to the design of a scheme in order to identify what trees and vegetation should be retained and protected on site. We will expect developers to follow the principles and practices set out in BS 5837: 2005 Trees in relation to construction to integrate existing trees into new developments.



- 6.9 BS5837: 2005 Trees in relation to construction outlines the survey method for identifying which trees should be retained and protected. Once the survey has identified the important trees and vegetation a Tree Constraints Plan (TCP) needs to be prepared for the site. The TCP is essential to site planning as it provides the limitations for development including:
- site layout and building lines;
 - changes in levels;
 - foundation design; and

- service provision where the root zones and crown spread of trees are to be protected.

NEW UTILITIES

Useful guidance for the installation of new utilities in the vicinity of trees is also provided in National Joint Utilities Group (NJUG) Vol 4 - Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees

- 6.10 The TCP should also identify the provision of sufficient space, above and below ground for new planting to develop and mature and existing trees to continue to grow (see paragraph 6.42 below regarding soft landscape design).
- 6.11 Where trees are identified to be retained it is imperative that contracting and site supervision procedures are in place to ensure that there is no damage during and after construction. We will normally seek a Method Statement which sets out how trees that are to be retained, both on and adjacent to the site will be protected. The Method Statement should identify how the provision of site accommodation, storage areas, site access and the positioning, heights and arcs of cranes will not affect the trees and vegetation that are to be protected.

Root zone

The area and volume of soil around the tree in which roots are found. May extend to three or more times the branch spread of the tree, or several times the height of the tree.

Crown spread

The extent of the branches, twigs and leaves that form the top of the tree

Specific protection for trees

- 6.12 Where a planning application involves works that affect trees either within the application site or on adjacent land (including street trees) we will require the following information to determine the application:
1. A Tree Survey
(see section 4.2 of BS5837:2005)
 2. A Tree Constraints Plan
(see sections 5.2 and 5.3 of BS5837:2005)
 3. An Arboricultural Implications Assessment
(see section 6 of BS5837:2005)
 4. An Arboricultural Method Statement for the protection of trees to be retained including a Tree Protection Plan
(see section 7 of BS5837:2005)
- 6.13 Failure to supply the documents outlined above may lead to a planning application not being validated.

- 6.14 To obtain a copy of BS5837:2005 please visit www.StandardsUK.com and for a list of arboricultural consultants visit www.trees.org.uk, www.charteredforesters.org and www.consultingarboristssociety.co.uk.

Tree preservation orders

- 6.15 Many trees in Camden are covered by a Tree Preservation Order (TPO). Please contact the Council to find out if a tree is protected by a TPO.

TREE PRESERVATION ORDER

A tree preservation order is made by the Council to legally protect specific trees or groups of trees that provide public amenity.

Unauthorised works to a tree with a TPO is a criminal offence and may result in prosecution and, upon conviction, a fine.

- 6.16 Works (above or below ground) to trees with a TPO require our permission. Application forms for these works are available at www.camden.gov.uk.
- 6.17 Works to a tree with a TPO required to enable the implementation of a planning permission are dealt with as part of a planning application. A further TPO application is not required.

Trees in Conservation Areas

SECTION 211

Under Section 211 of the Town & Country Planning Act 1990, anyone proposing to cut down or carry out work on a tree in a Conservation Area must provide the Council 6 weeks notice of their intention to do so.

- 6.18 All trees in Conservation Areas with a trunk diameter of 75mm or greater measured at 1.5m above ground level are protected under section 211 of the Town and Country Planning Act 1990 (as amended). If you are proposing works to a tree in a Conservation Area, above or below ground, you are required to give Camden Planning Services six weeks notice of your proposals (See above link for forms). Works to a tree in a Conservation Area required to facilitate the implementation of a planning permission are dealt with as part of a planning application. A further section 211 Notification is not required. If you carry out unauthorised works to a tree in a Conservation Area is a criminal offence and may result in prosecution and, upon conviction, a fine.

How should new landscaping be included into a development?

General principles

- 6.19 Urban landscape design encompasses the following types of spaces:
- streets and associated public spaces,
 - parks, public and private squares, gardens,
 - amenity and servicing space around buildings; and

- buildings themselves.

6.20 The principle components of landscape design are soft landscape details (planting) and hard landscape details (the constructed aspects of design) for example surfaces, lighting, seating, water features and boundary treatments.

6.21 Urban spaces have particular character which results from a combination of factors including geology, ecology, topography and the history of their development and use. We will expect new landscape design to respond to, preserve and enhance local character, including through the:

- preservation of existing trees and hedges;
- planting of new trees and hedges; and
- detailed design of boundary treatments and spaces within the site particularly where they are visible to the public domain.



6.22 Planning applications will be assessed against

- the successful resolution of the above elements into the design of the site
- whether the site design has optimised opportunities to increase a site's sustainability and function in adapting to climate change (see CPG3 Sustainability for further details on Biodiversity and Climate change adaptation)
- the need to reduce opportunities for criminal behaviour (see the chapter in this guidance on Designing safer environments)
- the need to provide inclusive environments (see CPG6)

Specific areas that are landscaped and contain trees

6.23 Areas within a development site that are generally landscaped include:

- gardens;
- access and servicing routes;
- parking spaces and cycle stores;
- boundary walls, fences and railings; and

- building roofs and walls.

Gardens

- 6.24 Front, side and rear gardens make an important contribution to the townscape of the Borough and contribute to the distinctive character and appearance of individual buildings and their surroundings. Gardens are particularly prone to development pressure in the Borough with their loss resulting in the erosion of local character and amenity, biodiversity and their function in reducing local storm water run off.

Front Gardens

- 6.25 The design of front gardens and forecourt parking areas make a large impact on the character and attractiveness of an area and in particular the streetscene. The design of front gardens and other similar forecourt spaces should:
- consider a balance between hard and soft landscaping. Where changes take place no more than 50% of the frontage area should become hard landscape. Where parking areas form part of the forecourt enough of the front boundary enclosure should be retained to retain the spatial definition of the forecourt to the street and provide screening;
 - retain trees and vegetation which contribute to the character of the site and surrounding area;
 - retain or re-introduce original surface materials and boundary features, especially in Conservation Areas such as walls, railings and hedges where they have been removed. If new materials are to be introduced they should be complementary to the setting; and
 - prevent the excavation of lightwells as a means of providing access to basements where this does not form part of the historical means of access to these areas.



Paving of front gardens

CHANGES TO PERMITTED DEVELOPMENT

The General Permitted Development Order no longer allows the creation of more than 5 square meters of impermeable surfaces at the front of dwelling houses that would allow uncontrolled runoff of rainwater from front gardens onto roads without first obtaining planning permission.

Changes to frontages incorporating hard standings may also be affected by Article 4 Directions. Article 4 Directions are issued by the Council in circumstances where specific control over development is required, primarily where the character of an area of acknowledged importance would be threatened, such as conservation areas

- 6.26 Planning Permission will not be granted for hard standings greater than five square metres that do not incorporate sustainable urban drainage systems (SUDS) into the design. SUDS incorporate permeable surfaces to allow water to soak into the subsoil, rather than being diverted into the stormwater system. SUDS are particularly appropriate in the parts of the borough north of Euston Road as this area has predominantly clay soils. Methods for choosing the appropriate design of a SUDS are provided in “Responsible rainwater management around the home” available from www.paving.org.uk. Planning applications which incorporate car parking areas into developments will be required to demonstrate that the chosen solution is appropriate to the underlying soil type.

Creating a cross over

- 6.27 For single family dwellings planning permission is not required for the creation of a cross over unless the property is affected by an Article 4 Direction or the cross over is to a classified road. However permission is required for the formation of a cross over from the Highways Authority. The Highways Authority will generally refuse permission where it would result in the loss of on street car parking spaces.
- 6.28 Planning permission is required for forecourt parking at the fronted of buildings divided into flats. Listed Building Consent is required to alterations to structures affecting listed buildings including structures within their curtilage.

Listed building consent

Legally required in order to carry out any works to a Listed Building which will affect its special value. This is necessary for any major works, but may also be necessary for minor alterations and even repairs and maintenance. Listed Building Consent may also be necessary for a change of use of the property.

Rear Gardens

- 6.29 Rear gardens are important as they:
- form part of the semi public domain where they are over looked by large numbers of properties and the occupants of surrounding buildings benefit from the outlook.

- form the character of an area in terms of the relationship between buildings and spaces and the resulting openness or sense of enclosure
- provide a sense of the greenery where they can be viewed through gaps between buildings
- provide a sense of visual separation and privacy
- soften the impact of buildings and integrate them into their setting
- play a significant role in maintaining the biodiversity of the borough (see CPG3 Sustainability for further details on Biodiversity). In particular groups of trees and vegetation along the rear boundaries of garden provide important wild life corridors within existing development patterns.

6.30 The potential detrimental affects of new structures in gardens can be reduced by:

- carefully siting structures away from vegetation and trees,
- designing foundation to minimises damage to the root protection zones of adjacent trees,
- including green roofs, green walls on new development and vegetation screens.

Root protection zone

The area around the base or roots of the tree that needs to be protected from development and compaction during construction to ensure the survival of the tree.

6.31 Planning permission is unlikely to be granted for development whether in the form of extensions, conservatories, garden studios, basements or new development which significantly erode the character of existing garden spaces and their function in providing wildlife habitat (See the chapters on Extensions, Alterations and Conservatories in this guidance document, and CPG4 on Basements).

Access and servicing areas

6.32 Where underground parking and/or servicing forms part of a larger development, access should be integral to the design of the development. Entrances and ramps should be discrete.

6.33 Entrances and adjoining areas of buildings are often spaces which require the integration of a number of competing needs such as the provision of bins, cycle storage, meters and inspection boxes and external lighting. These elements should be constructed with materials sympathetic to the site and surroundings. You can minimise the visual impact of storage areas by careful siting and incorporating planters to screen developments and incorporating green roofs as part of their structure.

6.34 Space and location requirements for the storage of waste and recycling can be found in this guidance in chapter on Waste and recycling

storage. Further guidance on how access to site and parking areas should be designed can be found in CPG6 Transport.

Boundary Walls, Fences and Railings

- 6.35 Boundary walls, fences and railings form the built elements of boundary treatments. They should be considered together with the potential for elements of soft landscaping. For example, we encourage the combination of low brick boundary walls and hedges as a boundary treatment. Boundary treatments should:
- delineate public and private areas;
 - contribute to qualities of continuity and enclosure within the street scene; and
 - provide site security and privacy.
- 6.36 Due to the prominence of the boundary treatments in the streetscene we will expect the design, detailing and materials used to provide a strong positive contribution to the character and distinctiveness of the area and integrate the site into the streetscene.
- 6.37 With regards to boundary walls, fences and railings, we will expect that:
- you consider repairing boundary walls, fences and railings before they are replaced;
 - they make a positive contribution to the appearance and character of the development site and to the streetscene;
 - you consider designs to be effective for their function.
 - the design and construction does not damage any on site or off site trees that are identified for retention (See paragraphs 6.15 to 6.18 above).
- 6.38 For boundary treatments around listed buildings or in a conservation area we will expect:
- the elements are repaired or replaced to replicate the original design and detailing and comprise the same materials as the original features
 - the works preserve and enhance the existing qualities and context of the site and surrounding area
- 6.39 Planning Permission is not required for the erection of a boundary treatment no higher than 1m where it abuts the highway or 2m on any other boundary. These heights are measured from ground level and include any structure that may be attached for example a trellis attached to the top of boundary wall.
- 6.40 Listed Building consent may be required for any works to boundary treatments within the curtilage of a listed building.

Types of landscaping

- 6.41 Landscaping are divided into the following broad types:

- soft landscaping (planting);
- hard landscaping; and
- landscaping on building.

Soft Landscape Details (Planting)

6.42 Soft Landscape is a term to describe the organic, vegetative or natural elements of Landscape Design. There are three main objectives in planting design (1) Functional (2) Ecological and (3) Aesthetic. Each of these objectives is likely to be inter related however one may be prioritised over another for the purpose of a particular project.

6.43 Functional objectives include:

- integrating a site with its surroundings;
- providing spatial definition and enclosure;
- directing pedestrian and vehicular movement;
- providing shelter,
- providing micro climatic amelioration and
- providing SUDS.

Ecological Objectives include:

- maintaining and enhancing natural processes; and
- increasing the biodiversity value of a site.

Aesthetic Objectives include:

- creating or contributing to the character of a place; and
- adding to people's sensory enjoyment in the use of a space.

Crown canopy

The uppermost layer in a forest or group of trees.
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6.44 Landscaping schemes need to maintain and plant large canopy trees as a means of countering the negative effects of increasing urban temperatures due to climate change. Existing large canopy trees are part of the character of several areas in the Borough. In these areas in particular and other areas where the opportunity arises space should be made for the growth and development of large canopy trees. Large canopy trees are usually considered to be trees which reach a mature height of 15-20m+. Site design should make provision for the expansion of the crown canopy of these trees and sufficient soil volume to support a trees growth to maturity. As a general rule the soil volume required to support a healthy large canopy tree is 6m x 6m x 1m depth. The detailed requirements for the growth and development of large canopy urban trees can be found in "Up by the Roots" by James Urban (International Society for Arboriculture, 2008).

6.45 The long term success of planting schemes will determine species selection suitable for local growing conditions (soil conditions, temperature ranges, rainfall, sun light and shade) and provision for on

going maintenance. Generally native species are considered to be most adapted to local conditions however there are a range of exotic plants which are at least equally adaptable to the unique ecology of urban areas and which provide an important contribution to a site's biodiversity.

- 6.46 Maintenance requirements should be considered at the design stage in terms of ensuring there is access for maintenance, whether maintenance materials need to be stored on site and that there are available sources of water. Water conservation should be intrinsic to the design of a planting scheme whether it is by selecting drought tolerant plants, maintaining soil conditions conducive to water retention with, for example, mulching or providing for on site water harvesting and grey water recycling.
- 6.47 Planning applications will be assessed against the degree to which planting schemes meet their objectives and that the chosen objectives are appropriate for the site. Planning applications should be accompanied by:
1. a statement of the design objectives of planting plans;
 2. planting plans indicating species, planting patterns, planting size and density; and
 3. where appropriate managements plans.

Hard Landscape Details

- 6.48 Hard landscape is a term used to describe the hard materials used in landscape design such as paving, seating, water features, lighting, fences, walls and railings (see paragraphs 6.35 to 6.38 above for guidance on boundary walls, fences and railings and the chapter on Design excellence regarding the design of public space).
- 6.49 Hard landscape makes a significant contribution to the character of the Borough. The scale, type, pattern and mix of materials help define different uses and effects the perception of the surrounding buildings and soft landscape and overall quality of an area. To help integrate the development with its surroundings and contribute to the sustainability of the project we will expect:
- the selection of materials, patterning and methods of workmanship to consider those already at use in the area;
 - traditional and natural materials to be used, especially in Conservation Areas (Guidance can be found in Conservation Area Statements, Appraisals and Management Plans);
 - the use of salvaged and re used materials, where appropriate; and
 - all paving to be level and accessible where used by pedestrians, this needs careful consideration where the use of historic materials is proposed.
- 6.50 The Council will discourage the replacement of soft landscaping with hard landscaping in order to preserve the environmental benefits of vegetation identified above. However where hard landscape is

unavoidable we will seek sustainable drainage solution to any drainage (see CPG3 Sustainability chapter on Flooding).

Lighting

- 6.51 Lighting can make an important contribution to the attractiveness of an area. It is also important for the security and safety of an area. The design and siting of columns and lights can provide a significant role in the creation of the character of a place. Other lighting techniques include wall mounting, bollards with integral lights and ground level up lighters. While adequate lighting is required, the intensity of lighting should be appropriate to its function. Care should be taken not to over light which can lead to unnecessary light pollution and energy consumption and in some cases become a nuisance to neighbouring residential properties. Lightning can also become a disturbance to local wildlife, particularly bats, and can affect the wildlife that uses and lives on the canal.

Landscaping on buildings

- 6.52 Landscaping on buildings includes both soft and hard landscaping and occurs in the forms of green and brown roofs and green walls. Green roofs, brown roofs and green walls can provide important landscape detail, biodiversity improvements, prevent local flooding and keep a building insulated. See CPG3 Sustainability (Green roofs and walls chapter).