Camden Development Policies 2010-2025

Local Development Framework

Camden

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Camden

DP6. Lifetime homes and wheelchair housing

6.1 Core Strategy policy CS6 indicates that Council will seek a variety of housing types suitable for people with mobility difficulties. Policy DP6 helps to deliver this by setting out our approach to lifetime homes and wheelchair housing.

6.2 Although mobility difficulties should be considered in the design of all forms of housing, the standards for lifetime homes and wheelchair accessibility relate primarily to the layout of self-contained homes. As occupants of student housing will only stay for a limited period, student housing is not expected to meet lifetime homes standards. The proportion of students who are wheelchair users should reflect the general population, therefore the Council expects 10% of student flats or study-bedrooms (together with supporting communal spaces) to meet wheelchair standards.

DP POLICY

DP6 – Lifetime homes and wheelchair housing

All housing development should meet lifetime homes standards. 10% of homes developed should either meet wheelchair housing standards, or be easily adapted to meet them.

6.3 The Council considers that people with mobility difficulties, including disabled people, should have access to a range of housing types that match the range available to those without mobility constraints. Mobility difficulties can affect children, young people, adults and older people. They can affect people who live in large families, small households and people living alone. Where people have support needs related entirely to a physical disability, the Council will seek to provide them with support in their own home.

6.4 A lifetime home supports the changing needs of a family's lifecycle, from raising children though to mobility issues in old age, essentially allowing people to live in their home for as much of their life as possible. Lifetime homes involve design features that have been tailored to foster accessible living, helping to accommodate old age, injury, disability, pregnancy and pushchairs. These features also allow a dwelling to be easily adapted for even higher levels of accessibility in the future, if the need arises. Lifetime homes exceed the requirements of Part M of the Building Regulations.

6.5 Lifetime homes standards will be applied to all developments of self-contained housing, including conversions, reconfigurations and changes of use (the standards do not apply to student housing). The standards will also be applied to proposals for bedsits or other permanent housing with shared facilities if the development could be occupied lawfully as self-contained dwellings in Use Class C3 without submission of a further planning application (please see paragraphs 9.2 to 9.3 for more details). The Council acknowledges that the design or nature of some existing properties means that it will not be possible to meet every element of the lifetime homes standard, for example in listed buildings, but considers that each scheme should achieve as many features as possible. All housing proposals should be accompanied by a submission showing how each of the lifetime homes standards will be met, with a full justification why any individual element will not be met. New build schemes are expected to incorporate all lifetime homes features. Further information on lifetime homes can be found in our Camden Planning Guidance supplementary planning document.

6.6 To provide independence and quality of life for wheelchair users, the Council will expect 10% of dwellings either to meet wheelchair housing standards, or be designed so a future occupier can easily adapt the dwelling to meet wheelchair housing standards. The percentage will be applied to all developments providing 10 or more self-contained homes, including conversions, reconfigurations and changes of use, and will also be applied to student housing. The percentage

will also be applied to proposals for bedsits or other permanent housing with shared facilities if the development could be lawfully occupied as 10 or more self-contained dwellings in Use Class C3 without submission of a further planning application (please see paragraphs 9.2 to 9.3 for more details). However, where proposals involve re-use of an existing building (particularly a listed building), the percentage will be applied flexibly taking into account of any constraints that limit adaptation to provide entrances and circulation spaces that are level and wide enough for a wheelchair user.

6.7 Ideally, wheelchair housing should be tailored to the specific needs of an individual wheelchair user and their household. Although tailoring housing to the occupier is rarely possible in proposals for speculative market housing, it can be achieved for affordable housing, where future occupiers can be identified by local housing managers, from the Housing Register (waiting list), and from transfer lists.

6.8 The Council will apply the wheelchair housing percentage across each affordability category in a scheme, generally seeking 10% of market housing, 10% of social housing and 10% of intermediate housing. For the 10% of market housing, future occupiers will often be unknown until after the homes have been fitted out. Where the 10% market housing is not fully fitted-out to meet the standards, it should be laid out to provide all the necessary circulation space within and between rooms, including bathrooms and toilets, as subsequent changes to these arrangements can be costly and difficult.

6.9 For social rented housing and intermediate housing, each type should include 10% of homes designed, built and fitted-out to meet wheelchair housing standards. The Council may use its affordable housing fund to support the creation of fully-fitted out affordable wheelchair accessible housing. We may seek to increase the percentage of affordable wheelchair accessible homes and reduce the percentage of market wheelchair accessible homes where this will enable us to meet the needs of identified future affordable housing occupiers. We may also agree to increase the percentage of social rented wheelchair homes and reduce the percentage of intermediate affordable wheelchair homes (or vice versa) where this will better enable us to meet the needs of identified future occupiers. More detailed information is included in our Camden Planning Guidance supplementary development document.

Key evidence and references

- Camden Housing Needs Study Update 2008
- The London Plan (consolidated with Alterations since 2004); Mayor of London; 2008
- Accessible London: achieving an inclusive environment – London Plan Supplementary Planning Guidance; Mayor of London; 2004

Promoting sustainable and efficient transport

16.1 Camden faces significant challenges relating to transport and travel, in particular air pollution and the congestion experienced on its road and public transport networks, as well as the need to address the wider issue of carbon dioxide emissions associated with travel. These issues have significant implications on the health and well being of the community. Camden's Core Strategy aims to promote sustainable and efficient travel (see policy CS11) by supporting strategic infrastructure projects in support of growth, promoting sustainable forms of transport, and making private transport more sustainable. This will support social cohesion and help to address health inequalities by providing better access for all to employment, education, facilities and encouraging more physical activity. In order to meet the challenges we face and to deliver Core Strategy aims, Camden Development Policies includes six policies on transport, covering:

- the transport implications of development (DP16);
- walking, cycling and public transport (DP17);
- parking standards and limiting the availability of car parking (DP18);
- managing the impact of parking (DP19);
- the movement of goods (DP20);
- development connecting to the highway network (DP21).

16.2 Almost every development that affects the transport network will have impacts in more than one of these areas. Therefore there is a need to refer to all relevant policies.

DP16. The transport implications of development

16.3 It is essential that new development is supported by adequate transport infrastructure. Camden Core Strategy policy CS11 states that the Council will pursue the delivery of additional transport infrastructure and promote sustainable transport in order to support growth in the borough, and will manage the impact of growth on the road network. Policy DP16 seeks to help deliver the Core Strategy by ensuring that the transport implications of development are managed, and additional transport infrastructure is delivered where needed, in order to ensure that growth in the borough is integrated with existing places and transport networks, and does not generate excessive demands on transport infrastructure. It should be read in conjunction with Core Strategy Policy CS11 as well as policies DP17 to DP21 below.

16.4 Transport considerations should be integral to a development. Developments should be planned taking into consideration the movement of people and goods, both within the development site and outside it.

DP **POLICY**

DP16 – The transport implications of development

The Council will seek to ensure that development is properly integrated with the transport network and is supported by adequate walking, cycling and public transport links. We will resist development that fails to assess and address any need for:

a) movements to, from and within the site, including links to existing transport networks. We will expect proposals to make appropriate connections to highways and street spaces, in accordance with Camden's road hierarchy, and to public transport networks;

b) additional transport capacity off-site (such as improved infrastructure and services) where existing or committed capacity cannot meet the additional need generated by the development. Where appropriate, the Council will expect proposals to provide information to indicate the likely impacts of the development and the steps that will be taken to mitigate those impacts, for example using transport assessments and travel plans;

c) safe pick-up, drop-off and waiting areas for taxis, private cars and coaches, where this activity is likely to be associated with the development.

Movements to, from and within a site

16.5 Developments should link in well with their surroundings by allowing for movement to and through development sites, in order to contribute to improved accessibility across the borough. Some developments may need to be designed to accommodate public routes across a site, for example because they straddle an existing road or footpath. Designs for large sites should be permeable so that linkages and public through routes are created and the development is integrated into the wider street pattern. Developments should generally be designed to accommodate movements into and across the site rather than as closed blocks with a single entrance/ exit point. The Council expects design of new developments to be safe and accessible to all (see Core Strategy Policy CS17 – *Making Camden a safer place*), and will resist new development designed as a 'gated community' (see also our Camden Planning Guidance supplementary document).

16.6 Creating motor vehicle access from the road network is not sufficient to integrate a development with walking, cycling and public transport networks. To ensure integration into wider networks, development is expected to contribute to off-site measures where existing connections are not appropriate to serve a development. The networks that are relevant, including the Camden road hierarchy, and the measures that many be needed are considered further in policy DP21 – *Development connecting to the highway network* and our Camden Planning Guidance document).

Transport capacity

16.7 It is essential that there is sufficient transport capacity available to allow for travel demands generated by new development, including cumulative demand. Where necessary, proposals should include on-site measures as well as off-site contributions to increase capacity, including contributions towards the delivery of strategic transport infrastructure (see Core Strategy Policy CS11) in accordance with the London Plan. The enhancement of off-site capacity will usually only arise from developments that generate significant travel demand, and for these a formal Transport Assessment and Travel Plan will be required to indicate the measures needed in association with development (see paragraphs 16.9 to 16.19 below). In addition, the Mayor has introduced a policy in the London Plan, and prepared Supplementary Planning Guidance – *Use of planning obligations in the funding of Crossrai*l, to seek financial contributions from new development towards the delivery of Crossrail. Crossrail will help to support growth in London by tacking congestion and the lack of capacity on the existing rail network.

16.8 Development proposals will need to be accompanied by an indication of their implications for the transport network unless they involve minimal trip generation. It will often be possible to address basic issues (movement on and around the site and linkages to transport networks) through the Design and Access Statement, which is a nationally required submission with most planning applications.

Transport assessments

16.9 Where the transport implications of proposals are significant, the Council will require a Transport Assessment to examine the impact on transport movements arising from the development. An indicative threshold for developments that will require a Transport Assessment is set out in Appendix 1.

16.10 The purposes of an assessment are to ensure that a proposal will not cause harm to the transport network or to highway safety, to show that the development will be properly integrated into the network, and indicate the extent to which there is additional capacity available to accommodate new travel patterns.

16.11 Transport assessments should:

- consider all types of movement associated with a proposal, both during construction and after completion, including an analysis of existing and proposed trips generated by the existing site and the proposed development for all transport modes and the impact these trips will have on the transport network;
- identify specific routes over which existing and proposed trips are taking place;
- address the movement of goods and materials, including the removal of spoil and demolition waste, delivery of construction equipment and materials, and servicing the completed development with refuse and goods vehicles;
- consider the cumulative impact of the proposal with any others that will affect the same infrastructure, and whether the existing or committed capacity will be able to accommodate all of them; and
- indicate the steps that a developer will need to take to ensure that a proposal will be connected to existing transport infrastructure and will not have a negative impact on the capacity of existing infrastructure. These steps should include the provision of both on- and off-site measures, as necessary. The enhancements involved are considered further in connection with policy DP17 – *Walking, cycling and public transport*.

16.12 An assessment should only take account of planned transport provision where this has fully secured funding and has a firm start date (see policy CS11 and Appendix 1 in the Camden Core Strategy for further information regarding key planned transport infrastructure projects in the borough). Where existing and proposed public transport provision will not have sufficient capacity to serve the development, the Council will expect to secure funding towards the enhancement of public transport capacity.

16.13 The depth of analysis for a transport assessment will reflect the scale and kind of a development and the nature and capacity of the transport network in the area. Further information about transport assessments is given in our Camden Planning Guidance supplementary document. Transport for London's *Transport Assessment Best Practice Guidance* (May 2006) also provides guidance on the submission of transport assessments: all applications that are referred to the Mayor should comply with this guidance.

16.14 Applicants for developments that are close to London Underground assets should also contact Transport for London's London Underground Infrastructure Protection team at an early stage before the commencement of design work to ensure that any constrains are addressed.

16.15 The concentration of schools in some parts of Camden, including the Hampstead and Belsize Park areas, has led to traffic congestion, road safety and parking problems related to the 'school run'. As part of transport assessments, applications for new schools and for the expansion of existing schools will be expected to provide details of the projected growth in student numbers, how students are likely to travel, their impact on the transport system and any measures to offset transport problems. In areas with an existing problem with the school run, it is unlikely that the Council will grant planning permission for educational facilities that are likely to exacerbate the problem.

16.16 For larger developments that would have implications for transport, but fall below the threshold for transport assessments, the following information will be required from applicants:

- an indication of the scale, mode, type and frequency of all trips associated with the development on a daily basis;
- a description of how this transport demand can be accommodated by walking, cycling, public transport, and any other sustainable alternative modes of travel, as set out in policy DP17 below;
- an overview of how potential highway impacts associated with the construction of the proposed development will be remedied or mitigated, and how local amenity will be preserved during the construction period; and
- an overview of the servicing requirements of the development after occupation and of the servicing provision made to accommodate this.

16.17 The indicative scale of development schemes where this information will be required is set out in Appendix 1.

Travel Plans

16.18 Wherever a Transport Assessment is needed, submission of a travel plan is also expected as one way of mitigating the transport impact of the development. However, travel plans may also be sought from smaller developments if the impacts on transport are considered significant.

16.19 The Transport for London *Guidance for Workplace Travel Planning for Development* (2008) states that a simplified travel plan (an Enterprise Scale Travel Plan) should be provided for businesses and establishments below the Travel Plan thresholds where 20 or more staff will be employed. Transport for London also provides guidance on the production and use of travel plans for residential development in its *Guidance for Residential Travel Planning in London* (2008). Further information is also provided within our Camden Planning Guidance supplementary document, and in *Making residential travel plans work: guidelines for new development* (Department of Transport, 2005).

Other management plans

16.20 Where appropriate, Delivery and Servicing Management Plans, Visitor Management Plans and Construction Management Plans may be required to be submitted alongside planning applications. If these are not required in assessing a planning application but are still considered necessary to mitigate associated impacts, their submission will be secured through legal agreements. Please see policy DP20 for further details regarding the Council's approach to the movement of goods and materials, including the use of Delivery and Servicing Management Plans and Construction Management Plans.

Safe pick-up, drop-off and waiting areas

16.21 Developers will be expected to assess fully the impact of vehicle movements associated with pick-up, drop-off and waiting. Development that is likely to attract significant numbers of taxis, minicabs and coaches should be designed with appropriate passenger pick-up and drop-off points, each providing appropriate spaces and management arrangements to prevent harm to highway safety, pedestrian movements or amenity. Facilities should allow people with disabilities to get safely in and out of taxis and minicabs. Where possible, developments should include the pick-up and drop-off facilities they need on-site, but off-site arrangements will sometimes be necessary. Where it is not possible to provide for a suitable set down point for coaches, the Council may negotiate planning obligations with developers to prevent coach access to these sites.

16.22 Visitor attractions and accommodation can generate significant vehicle movements, particularly by taxi and coach. Further information on the Council's approach to proposals for tourism development and visitor accommodation is set out in policy DP14.

Key evidence and references

- Camden Local Implementation Plan (LIP) 2005/06 – 2010/11
- Draft Camden Green Transport Strategy 2008 – 2012
- Camden Walking Plan Second Edition 2006
- The London Plan (consolidated with Alterations since 2004); Mayor of London; 2008
- Planning Policy Guidance (PPG) 13: Transport; ODPM; 2001
- Transport Assessment Best Practice Guidance; Transport for London; May 2006
- Guidance for Workplace Travel Planning for Development; Transport for London; March 2008
- Guidance for Residential Travel Planning in London; Transport for London; March 2008
- Making residential travel plans work: guidelines for new development; Department of Transport; 2005.

DP17. Walking, cycling and public transport

17.1 The provision of sustainable travel options is essential in order to reduce the environmental impact of travel, to support future growth, to relieve pressure on Camden's existing transport network, and to provide alternatives to the private car. Core Strategy policy CS11 sets out at a strategic level how the Council will promote sustainable transport modes. Policy DP17 sets out in more detail the Council's requirements for new development in terms of provision for walking, cycling and public transport, in conjunction with CS11 and policies DP16 and DP18 – DP21.

DP POLICY

DP17 – Walking, cycling and public transport

The Council will promote walking, cycling and public transport use. Development should make suitable provision for pedestrians, cyclists and public transport and, where appropriate, will also be required to provide for interchanging between different modes of transport. Provision may include:

a) convenient, safe and well-signalled routes including footways and cycleways designed to appropriate widths;

b) other features associated with pedestrian and cycling access to the development, where needed, for example seating for pedestrians, signage, high quality cycle parking, workplace showers and lockers;

c) safe road crossings where needed;

d) bus stops, shelters, passenger seating and waiting areas, signage and timetable information.

The Council will resist development that would be dependent on travel by private motor vehicles.

The Council will seek to secure travel interchange facilities in locations that maximise travel benefits and minimise environmental harm. Passenger transport interchanges should provide for the co-ordination of arrival and departure timetabling on different services as far as possible. Interchanges catering for longer distance journeys should include toilets, baby changing facilities and facilities to provide refreshment for travellers.

17.2 Accessibility in Camden is generally good, with the majority of the borough already served by frequent public transport services through London Underground, London Overground, rail and bus links. There are few areas in the borough where development would have relatively limited accessibility to public transport (for example at the fringes of Hampstead Heath). In such areas, private cars may be the only practical option for some journeys. However, it is possible throughout Camden to provide for some journeys to be made in more sustainable ways. Developments will be dependent on travel by private motor vehicles if they are designed without a safe means of access to footways, nearby bus-stops, and a road or other route appropriate for cyclists. These will therefore be minimum requirements for all development.

17.3 The design of a development and the way it relates to transport networks will be major factors influencing the transport choices of future occupiers and visitors. To encourage people to make sustainable transport choices, the options available will need to form a continuous network of convenient and pleasant routes that make people feel safe, link to all parts of the borough, are easy to use by people with mobility difficulties, and be integrated by facilities to make it easy to change between one form of transport and another.

Footpaths and cycle routes

17.4 The Council will expect new developments to provide appropriate, safe pedestrian and cycle links as part of schemes in order to promote sustainable travel and enhance accessibility, including for vulnerable users. The provision of pedestrian and cycle links also helps to promote more active, healthy lifestyles. In order to maintain pedestrian and cyclist safety, links should be designed to prevent conflict between motor vehicles, cyclists and pedestrians. Footpaths need to be wide enough for the number of people who will use them so they do not spill onto roads. They should also include features to assist vulnerable road users, including the provision of dropped kerbs and textured paving where appropriate.

17.5 Safe facilities for cyclists, either fully segregated or on the road, offer the best prospect for reducing the level of cycling on pavements. Measures for walking and cycling will often need to extend beyond the site if development will increase flows nearby, for example, footway widening, new pedestrian crossing facilities, and improved sightlines for cyclists. Our Camden Planning Guidance supplementary document and Streetscape Design Manual include guidance on designing spaces for pedestrians and cyclists. Where appropriate, developments will be expected to contribute towards the walking and cycling initiatives set out in Core Strategy policy CS11.

17.6 We will seek shared surfaces in appropriate circumstances, and where it will be safe for all users, for example at locations with high levels of pedestrian activity and where traffic speeds and volumes are low. Shared surfaces are unlikely to be appropriate on through-routes for cyclists.

17.7 Transport for London's *Walking Plan* (2004) and *Improving Walkability* (2005) good practice guidance documents set out strategic guidance and objectives to improve the pedestrian environment and encourage walking in the capital.

Other features for pedestrians and cyclists

17.8 The availability of routes alone is not sufficient to provide access to a development for pedestrians and cyclists, and many developments will need to make other provisions.

17.9 The nature and quality of features for pedestrians and cyclists is also highly important in order to create pleasant public spaces that are accessible to all, including people with mobility difficulties. Developments should provide features for pedestrians and cyclists that contribute towards the Council's objectives for promoting walking and cycling (see Core Strategy policy CS11 – *Promoting sustainable and efficient travel*), and to the creation of high quality public spaces, as required in Core Strategy policy CS14 – *Promoting high quality places and conserving our heritage* (see also policy DP21 – *Development connecting to the highway network* below).

17.10 At origins and destinations, cyclists will need storage for bicycles, equipment and protective clothing, and will often need to shower. High quality cycle parking is required in accordance with policy DP18 – *Parking standards and limiting the availability of car parking* and guidance in our Camden Planning Guidance supplementary document.

17.11 Contributions towards wider cycle initiatives may also be sought from new developments. See Core Strategy Policy CS11 for further information on cycle hire and cycle stations, which are integral elements of the Council's approach to promoting cycling.



Buses

17.12 In most developments, measures to enable use of buses will focus on provision of information within the development, improving the route to a stop, and enhancing bus-stop facilities: possible measures include signing the route, seating and shelters. There may be occasions when there is no spare capacity on existing bus services, and to enable a development to benefit from public transport services, a financial contribution to increase capacity would be necessary (for example, additional bus lane provision, or priority for buses at traffic lights). It may sometimes be necessary to pool contributions, particularly where there are cumulative impacts from nearby developments and an increase in capacity is needed.

Provision for interchange between transport modes

17.13 Most journeys involve changing between one form of travel and another and developments will sometimes need to cater for this. The creation of convenient and pleasant interchanges will encourage people to use alternatives to the car. A number of existing interchange points in the borough are likely to be developed in conjunction with the borough's growth areas (see Camden Core Strategy policy CS2) and with programmed transport investment. Interchanges around which additional development is expected to come forward include Euston Station, Tottenham Court Road Station, West Hampstead and Camden Town Underground Station.

17.14 Where development is proposed at an interchange between public transport services, the Council will expect the inclusion of facilities to make interchange easy and convenient for all users, and maintain passenger comfort. In line with Camden Core Strategy policies CS14 – *Promoting high quality places and conserving our heritage* and CS17 – *Making Camden a safer place*, works affecting interchanges should seek to provide high quality spaces that are safe for all users, and encourage people to use public transport and walk and cycle to destinations.

Key evidence and references

- Draft Camden Green Transport Strategy 2008 – 2012
- Camden Walking Plan Second Edition 2006
- Camden Cycling Plan: fourth annual review (2008)
- Camden Local Implementation Plan (LIP) 2005/06 – 2010/11
- Camden Interim Parking and Enforcement Plan 2005/11
- Camden Road Network Management Plan
- Camden Streetscape Design Manual 2005
- The London Plan (consolidated with Alterations since 2004); Mayor of London; 2008
- Planning Policy Guidance (PPG) 13: Transport; ODPM; 2001

DP20. Movement of goods and materials

20.1 Transport of goods and materials is essential to the economy, but if not managed sustainably it can be harmful to the environment, and cause congestion. As a dense, urban inner London borough the movement of goods in Camden can have particularly strong impacts in terms of traffic movement, noise and air pollution and, in some circumstances, impact on the quality of life of residents. Core Strategy Policy CS11 – Sustainable and efficient travel states that the Council will seek to minimise the movement of goods and materials by road, encourage the use of more sustainable modes of freight movement, and to minimise the impact of the movement of goods and materials on local amenity, traffic and the environment.

20.2 Policy DP20 builds on this by setting out the Council's requirements for new developments in relation to the movement of goods and materials both during construction and when in operation. It should be read in conjunction with policy DP16 – Development and transport implications and Core Strategy policy CS11.

DP **POLICY**

DP20 – Movement of goods and materials

Minimising the movement of goods and materials by road

In order to minimise the movement of goods and materials by road the Council will:

a) expect development that would generate significant movement of goods or materials both during construction and in operation to minimise the movement of goods and materials by road, and consider the use of more sustainable alternatives such as rail and canal links;

b) promote the development and use of freight consolidation facilities and other initiatives with potential to reduce the impact of goods vehicles, and encourage the use of cycle courier services for local deliveries; and

c) seek to promote and protect facilities for the movement of goods by rail and water, including facilities for transfer between road, rail and canal.

Minimising the impact of the movement of goods and materials by road

The Council will expect development that would generate significant movement of goods or materials by road, both during construction and in operation, to:

d) be located close to the Transport for London Road Network or other Major Roads;

e) avoid any additional need for movement of vehicles over 7.5 tonnes in predominantly residential areas;

f) accommodate goods vehicles on site; and

g) seek opportunities to minimise disruption for local communities through effective management, including through the optimisation of collection and delivery timings and the use of low emission vehicles for deliveries.

Minimising the movement of goods and materials by road

Movement of goods by rail and water

20.3 The Council recognises the problems that are caused by long distance movement of goods by road, and the potential advantages of using rail and water as an alternative. The North London Line, the Gospel Oak to Barking Line and the West Coast Mainline are already used for significant volumes of rail freight. The Regent's Canal provides the potential for more sustainable, lower impact water borne movement of freight. It is the only navigable waterway in Camden, and is not currently used for any significant volume of freight movement.

20.4 Per tonne carried, rail freight produces nearly 90% fewer emissions than HGVs (London Rail Freight Strategy 2007). No equivalent figures are available for canal freight, but canal movement has minimal social and environmental costs compared with the noise/vibration, air pollution and visual intrusion that can be created by heavy goods vehicles.

20.5 Regent's Canal is thought to be an economically viable route for some freight movements, notably the removal of demolition waste from canal-side sites. The Council will expect new developments along or close to the Canal to consider its use for the movement of goods and materials, and to contribute to the improvement of the Canal towpath, where appropriate. Developers should also make the most of opportunities to use rail links to move goods and materials.

20.6 We will protect the existing aggregate handling facility at King's Cross, which is a modern facility re-engineered in association with works for the Channel Tunnel Rail Link. We will also protect other track-side and canal-side sites that are brought forward for transfer use or processing rail and canal freight if their benefits outweigh any harm.

Efficient freight movement

20.7 The Camden Core Strategy promotes the use of freight consolidation as a key measure in reducing the number of trips made by goods vehicles, and indicates that there may be potential for a freight consolidation facility serving Camden's Central London Area (Core Strategy paragraph 11.23). The Council will expect developments to take advantage of existing freight consolidation facilities for service deliveries, where they exist. The Council will support proposals for freight consolidation facilities, subject to the other policy measures set out in our Local Development Framework.

20.8 As part of its approach to minimising road freight, the Council will discourage frequent deliveries of biomass fuel associated the sustainability and renewable energy requirements set out in policy DP22 and Core Strategy policy CS13 and in relation to climate change and sustainable design and construction. Paragraph 32.6 below addresses the air quality impacts associated with the burning of biomass fuel.

Cycle freight

20.8 The Council will promote the use of cycle-freight as an extension to cycle courier services by encouraging developers to make provision for cycle freight as part of Delivery and Servicing Management Plans. This provides the potential to manage deliveries in a way that is zero carbon, has little or no noise or air pollution implications, and has a minimal impact on congestion.

Minimising the impact of the movement of goods and materials by road

20.9 Goods vehicles, particularly heavy goods vehicles, can have negative impacts on local amenity and traffic movement in certain areas. Examples are areas suffering from poor air quality, areas where many delivery points are located close together (such as town centres), residential areas and narrow roads. Goods vehicles manoeuvring, loading and unloading add to pollution, and may cause obstructions and congestion, inconvenience and danger to pedestrians and other road users, and damage to pavements. The Council actively encourages a number of measures with potential to mitigate these impacts.

Moving goods and materials on appropriate roads

20.10 Policy DP21 – *Development connecting to the highway network* seeks to guide all forms of transport to the appropriate parts of Camden's road hierarchy. The roads considered to be most suitable for use by lorries and other heavy goods vehicles are those in the Transport for London Road Network and others designated as Major Roads. It will not usually be possible for development to directly access or be loaded from the Transport for London Road Network, but new development that will be served by heavy goods vehicles should be located to minimise the use of district and local roads for the movement of goods, particularly roads which provide primarily for access to residential properties.

20.11 The majority of service trips in central and inner London are made by freight vehicles of less than 7.5 tonnes gross vehicle weight, and this is the maximum size of vehicle that should be accommodated in residential areas on a daily basis. A number of weight limits have been introduced across largely residential parts of the borough, the largest of which covers an area between Camden Road and Kentish Town Road, and between Fortess Road and Highgate Road, extending up to Highgate. In this area, goods vehicles exceeding 7.5 tonnes are not permitted except for access.

Accommodating goods vehicles on site

20.12 The impact of goods vehicles can be reduced where a loading and unloading bay is included within a development, particularly where the bay can be enclosed. Developments that will need to be serviced by vehicles other than bicycles or cars should incorporate space within the site for goods vehicles wherever it is feasible to do so. The space required for service vehicles is set out in the Council's Parking Standards at Appendix 2.

Construction management plans

20.13 Where appropriate, the Council will ensure that applicants provide Construction Management Plans to demonstrate how a development will minimise impacts from the movement of goods and materials during the construction process. Construction Management Plans should deal with the hours of site activity; pick-up and delivery times for materials and equipment; limits on construction vehicle size; trip numbers and routes; the safety of road users during construction; and any temporary use of the highway for siting of construction plant. They should also deal with any temporary disruption or severance of highway links needed during the development process, as well as any other relevant measures needed to manage the construction phase.

20.14 Our Camden Planning Guidance supplementary document sets out further details regarding the Council's requirements for Construction Management Plans. See also policy DP26 for information regarding the Council's approach to managing the impact of the construction process on local amenity.

Effective management of servicing and deliveries

20.15 The Council will seek Delivery and Servicing Management Plans for developments that are likely to generate a significant need for the movement of goods and materials when occupied, in order to ensure that potential impacts are minimised.

20.16 The way that trips are managed will influence their impact on local communities, traffic movement and the environment. Delivery timings can also have a significant influence on the impact of goods movement, both on the highway network (including site specific and cumulative impacts), and on residential amenity from deliveries made out of working hours. The Council will therefore ensure that delivery timings are managed to optimal effect through the use of Delivery and Servicing Management Plans. We will also control the impact of goods vehicles through waiting and loading restrictions.

20.17 The Council will promote the use of quiet and low-pollution vehicles such as electric vehicles by encouraging developers to make provision for the use of such vehicles as part of Delivery and Servicing Management Plans. Low emission vehicles can significantly reduce noise and air pollution, and therefore offer the opportunities for necessary freight trips to be undertaken using vehicles that have a much lower impacts than standard freight vehicles.

20.18 Our Camden Planning Guidance supplementary document sets out further details regarding the Council's requirements for Delivery and Servicing Management Plans.

Key evidence and references

- Camden Local Implementation Plan (LIP) 2005/06 – 2010/11
- Camden Green Transport Strategy 2008 – 2012
- The London Plan (consolidated with Alterations since 2004); Mayor of London; 2008
- Planning Policy Guidance (PPG) 13: Transport; ODPM; 2001
- West London Canal Network Study – Phase 1 & 2: Developing Water Borne Freight on the West London Canal Network; Transport for London/ British Waterways London; September 2005

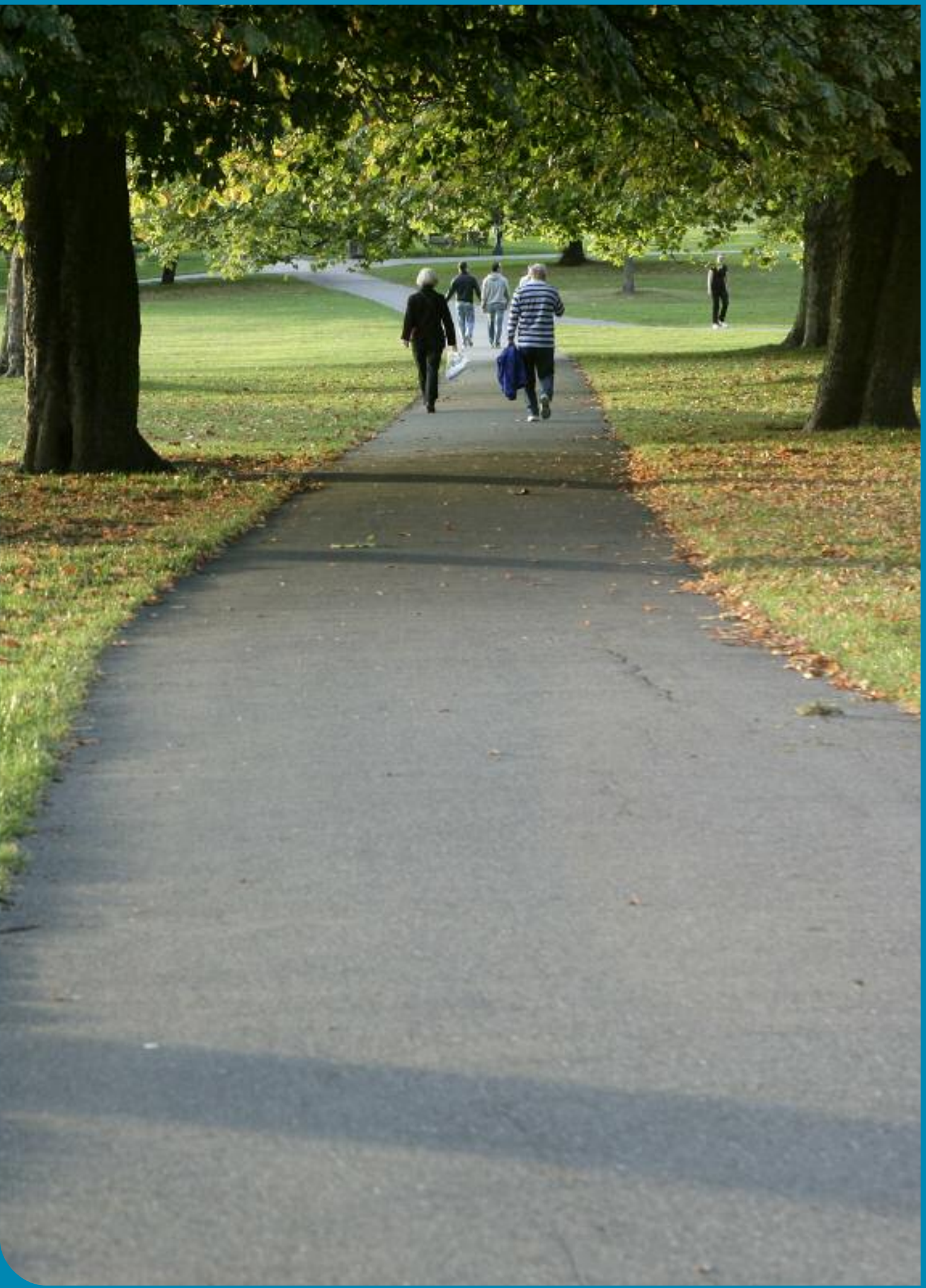
Section 3

A sustainable and attractive Camden – Tackling climate change and improving and protecting Camden's environment and quality of life

2.1 The Core Strategy sets out our overall approach to managing Camden's growth so that it is sustainable, meets our needs for homes, jobs and services, and protects and enhances quality of life and the borough's many valued and high quality places. This helps to achieve *A Sustainable Camden that adapts to a growing population* – one of the elements in the vision in the Camden Community Strategy.

2.2 This section of Camden Development Policies contributes to delivering the Core Strategy by providing detailed policies that we will use when determining applications for planning permission to ensure that development contributes towards a sustainable and attractive Camden. In particular, it supports the Core Strategy by focussing on:

- promoting sustainable design and construction;
- reducing our water consumption and the risk of surface water flooding;
- securing high quality design and conserving our heritage;
- managing the impact of development and noise and vibration;
- providing and improving open space, sport and recreation; and
- our approach to basements and lightwells, improving access, shopfront design and air quality and Camden's Clear Zone.



Promoting sustainability and tackling climate change

DP22. Promoting sustainable design and construction

22.3 Promoting a sustainable Camden is an integral element of our Local Development Framework strategy. Core Strategy policy CS13 – *Tackling climate change through promoting higher environmental standards* sets out a key part of our overall approach to tackling climate change, which includes promoting higher environmental standards in design and construction. Policy DP22 – *Promoting sustainable design and construction* contributes towards delivering the strategy in policy CS13 by providing detail of the sustainability standards we will expect development to meet. DP22 should be read in conjunction with Core Strategy policy CS13 and policy DP23 – *Water*. Core Strategy policy CS11 and policies DP16 to DP21 in this document set out our approach to sustainable transport.

22.4 Although the need for sustainable design and construction is not specific to Camden, the borough's highly built-up, inner urban environment means that we face specific environmental issues such as poor air quality and surface water flooding but have fewer options on how we can implement sustainable development and minimise our carbon emissions. The measures we can take to minimise the impacts of climate change and adapt to its effects need to consider, and be appropriate to, Camden's dense and historic character and sensitive environments. They should also take opportunities to build on the borough's past high performance on requiring sustainable measures within developments.

22.5 Core Strategy policy CS13 states that the Council will have regard to the costs and feasibility of measures to tackle climate change within developments (paragraph 13.4). This approach also applies to policy DP22. We will also take into account the cumulative costs of not responding to the need to mitigate and adapt to climate change as well as the long term cost savings, such as on energy and water bills, to future occupiers. Measures to tackle climate change are integral in the development process and are a priority of the Council. Therefore they should not be seen as 'add-ons'.

DP POLICY

DP22 – Promoting sustainable design and construction

The Council will require development to incorporate sustainable design and construction measures. Schemes must:

a) demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5 below, have been incorporated into the design and proposed implementation; and

b) incorporate green or brown roofs and green walls wherever suitable.

The Council will promote and measure sustainable design and construction by:

c) expecting new build housing to meet Code for Sustainable Homes Level 3 by 2010 and Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016.;

d) expecting developments (except new build) of 500 sq m of residential floorspace or above or 5 or more dwellings to achieve "very good" in EcoHomes assessments prior to 2013 and encouraging "excellent" from 2013;

e) expecting non-domestic developments of 500sqm of floorspace or above to achieve "very good" in BREEAM assessments and "excellent" from 2016 and encouraging zero carbon from 2019.

The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:

f) summer shading and planting;

g) limiting run-off;

h) reducing water consumption;

i) reducing air pollution; and

j) not locating vulnerable uses in basements in flood-prone areas.

Sustainable design and construction measures

22.6 The construction and occupation of buildings are major consumers of resources and can produce large quantities of waste and carbon emissions. The possibility of sensitively altering or retro-fitting buildings should always be strongly considered before demolition is proposed. All proposals for demolition and reconstruction should be fully justified in terms of the use of resources and energy, and the energy and water efficiency of the existing and proposed buildings. Where the demolition of a building cannot be avoided we will expect either the re-use of materials on-site or the salvage of appropriate materials to enable their re-use off-site. Where materials cannot be salvaged whole and where aggregate is required on-site, this demolished material should be crushed on-site for re-use, with measures taken to minimise dust and noise. Policy DP26 – *Managing the impact of development on occupiers and neighbours* sets out how we will expect development to limit the disturbance from dust due to demolition.

22.7 When a building is constructed, the accessibility of its location; its density and mix of uses; its detailed design taking into account the orientation of the site; and the mechanical services and materials chosen can all have a major impact on its energy efficiency. The Council will require all schemes to consider these general sustainable development principles, along with the detailed elements identified in the table below, from the start of the design process. Developments of 5 or more dwellings or 500sqm of any floorspace should address sustainable development principles in their Design and Access statements or in a separate Energy Efficiency Statement, including how these principles have contributed to reductions in carbon dioxide emissions. When justifying the chosen design with regards to sustainability the following appropriate points must be considered:

Design	Fabric/Services
• the layout of uses • floorplates size/depth • floor to ceiling heights • location, size and depth of windows • limiting excessive solar gain • reducing the need for artificial lighting • shading methods, both on or around the building • optimising natural ventilation • design for and inclusion of renewable energy technology • impact on existing renewable and low carbon technologies in the area • sustainable urban drainage, including provision of a green or brown roof • adequate storage space for recyclable material, composting where possible • bicycle storage • measures to adapt to climate change (see below) • impact on microclimate	• level of insulation • choice of materials, including - responsible sourcing, re-use and recycled content • air tightness • efficient heating, cooling and lighting systems • effective building management system • the source of energy used • metering • counteracting the heat expelled from plant equipment • enhancement of/provision for biodiversity • efficient water use • re-use of water • educational elements, for example visible meters • on-going management and review

22.8 Our Camden Planning Guidance supplementary document contains detailed guidance on further elements of sustainable design and construction. Please also see Core Strategy policies CS16 – *Improving Camden's health and well-being* and CS18 – *Dealing with our waste and encouraging recycling*, and policies DP32 – *Air quality and Camden's Clear Zone* and DP28 – *Noise and vibration* in this document.

Green and brown roofs and green walls

22.9 Green and brown roofs and green walls play important roles in achieving a sustainable development. They retain rainfall and slow its movement, provide additional insulation, provide valuable habitat to promote biodiversity, provide opportunities for growing food, reduce the heating up of buildings and the wider city and provide valuable amenity space. They should be designed to enable the benefits that are most suitable for the site. This will include ensuring a sufficient soil depth is provided and selecting the correct substrate and vegetation. The design of green walls should ensure sufficient irrigation for plants without the need for excessive energy consumption for pumping water.

22.10 Green and brown roofs can be easily incorporated into a flat roof and, where carefully designed, on a pitched roof. Therefore, it is important that the inclusion of a green or brown roof is considered at the initial design stage. In historic areas where a specific roof form dominates, it may be possible to incorporate a green or brown roof at the rear of buildings where they would not be visible from the street. Further details on our expectation for green and brown roofs and green walls can be found in our Camden Planning Guidance supplementary document.

Sustainable design and construction assessment tools

22.11 The government has set environmental targets for all new build dwellings, in *Building a Greener Future: Towards Zero Carbon*, and produced the Code for Sustainable Homes as the tool to assess these targets. BREEAM (Building Research Establishment Environmental Assessment Method) and EcoHomes assessments, which apply to non-residential developments and residential development arising from conversions and changes of use respectively, are other tools which enable us to assess the environmental sustainability of a development.

22.12 These assessment tools contain several categories (such as Energy, Water, Materials, Waste, Surface Water, Management, Transport, Land use, Ecology, Health and Well-being, and Pollution). Each category contains credits that can be obtained by implementing a sustainable design or construction measure. All the credits obtained are weighted and added together to achieve the overall score, which relates to a rating of either Pass, Good, Very Good, Excellent or Outstanding.

22.13 For developments in Camden it is generally easy to obtain the transport credits in BREEAM and EcoHomes assessments as the borough is well served by public transport and services. The credits in the management category are also reasonably easy to obtain. Therefore, in recent years we have been successfully applying sub-targets, which we developed in consultation with the Building Research Establishment in 2006, within the assessment categories of Energy, Water and Materials. The securing of the credits in these categories is considered to have the greatest environmental benefits. These sub-targets ensure that developments have fully addressed the main issues of sustainable design and construction and climate change relevant to the borough. They can be found in our Camden Planning Guidance supplementary document. The Council will also expect developments to achieve any higher energy/carbon reduction, water and environmental sustainability targets set by the government in the future.

22.14 We have been successfully applying a minimum standard of Level 3 for the Code for Sustainable Homes and Very Good for EcoHomes for residential developments of 5 dwellings or more in the borough. As Camden receives some applications for particularly large dwellings with a relatively higher energy and water use, we will apply this approach to developments of 500sqm or more of residential floorspace. For new build housing we will continue to require developments to achieve Level 3 of Code for Sustainable Homes and encourage improvements in environmental sustainability performance in line with the government's timetable towards zero carbon housing. For EcoHomes assessments (for dwellings resulting from conversions and changes of use) we will continue to expect the existing target of Very Good. The government is consulting on ways to improve energy use in existing buildings and, therefore, we will encourage homes resulting from conversions and changes of use to meet a higher EcoHomes target in 2013, in line with the next stage of the government's timetable towards zero carbon for new housing. Works to listed buildings and development within conservation areas should also consider the policies set out in Core Strategy policy CS14 – *Securing high quality design* and DP25 – *Conserving Camden's heritage*.

22.15 We will also apply the 500sqm threshold to non-residential developments to ensure all developments of the same size make a minimum contribution to environmental sustainability. If feasible at the time, we will expect non-residential development to achieve a BREEAM rating of 'excellent' from 2016 so that such schemes make an increasing contribution to environmental sustainability, in line with that expected from housing development.

22.16 BREEAM and EcoHomes assessments and the Code for Sustainable Homes provide a good overall guide to the environmental sustainability of a development. However, the largest group of credits in the Energy category of these assessments do not consider the energy efficiency of the initial design. To ensure that developments firstly incorporate energy efficient design, we will require schemes to adopt appropriate energy efficiency principles as highlighted in paragraph 22.7 above. An example of energy efficiency principles are the Passivhaus standards. PassivHaus includes:

- very good levels of insulation with minimal thermal bridges;
- good utilisation of solar and internal heat gains;
- an excellent level of air tightness; and
- good indoor air quality, provided by a whole house mechanical ventilation system with highly efficient heat recovery.

The Council will strongly encourage schemes to meet Passivhaus standards. Further details on energy efficient design and principles and PassivHaus are set out in our Camden Planning Guidance supplementary document.

Designing to adapt to climate change

22.17 It is predicted that in the future we will experience warmer and wetter winters and hotter and drier summers. These changes could lead to more intense rainfall and local flooding; subsidence due to increased shrinking and expanding of Camden's clay base; poorer air quality; a hotter micro-climate; and increased summer electricity use due to increased demand for cooling. Alongside the measures to reduce the effects of climate change set out above, we will require developments to incorporate appropriate measures to enable occupants to adapt and cope with climatic changes. Measures include:

- natural ventilation;
- summer shading;
- planting trees and vegetation;
- openable windows;
- the provision of external space; and
- the inclusion of pervious surfaces to enable water to infiltrate the ground to reduce clay shrinking and flooding.

22.18 The Council will discourage the use of air conditioning and excessive plant equipment. In addition to increasing the demand for energy, air conditioning and plant equipment expel heat from a building making the local climate (microclimate) hotter. Where the use of this equipment is considered acceptable by the Council, for example where sterile internal air is required, we will expect development to make a contribution towards cooling the local environment. This could be through the provision of green or brown roofs, green walls and the planting of trees and vegetation, on or off-site. For further details on the methods that can be incorporated within a development to enable it and its occupants to adapt to climate change and on green and brown roofs and green walls, please refer to our Camden Planning Guidance supplementary document. For further details on how to consider microclimate see policy DP26 – *Managing the impact of development on occupiers and neighbours* and Camden Planning Guidance.

22.19 Our expectations on designing for water efficiency and addressing extreme rainfall can be found in policy DP23 – *Water*. Policy DP27 – *Basements and lightwells* sets out our expectations for basement development. Our approach to improving Camden's air quality is set out in policy DP26 – *Air quality and Camden's Clear Zone* and Core Strategy policy CS16 – *Improving Camden's health and well-being*. Please see policy DP24 – *Securing high quality design* for further details on other aspects of design.

Key evidence and references

- Towards a Sustainable Camden. Camden' Environmental Sustainability Delivery Plan 2008-2012
- Camden Sustainability Task Force Report on Energy and Energy Efficiency; 2007
- Planning Policy Statement: Planning and Climate Change – Supplement to Planning Policy Statement 1; Communities and Local Government; 2007
- Building A Greener Future; Communities and Local Government; 2006
- Sustainable Design and Construction – Supplementary Planning Guidance; Mayor of London; 2006
- Building A Brighter Future. A Guide to Low Carbon Building Design; Carbon Trust; 2005
- Building Research Establishment Environmental Assessment Method (BREEAM); Building Research Establishment; 2006 and 2008
- Strategy for Sustainable Construction; BERR; 2008
- Definition of Zero Carbon Homes and Non-domestic Buildings Consultation; CLG; 2008
- Heat and energy saving strategy Consultation; Department of Communities and Local Government & Department of Energy and Climate Change; 2009

DP23. Water

23.1 Our built environment plays a large role in the way water is consumed, distributed and disposed of. The way water is used in a building and the pollutants it picks up running across a site affect the quality of the water that reaches our combined storm water and sewer system. In addition, the location of a development, and any flood mitigation measures used, can have an impact on local and downstream surface water flooding. For example, by capturing surface water on-site so that the flood risk to downstream properties is reduced or, in poorly located and designed schemes, by diverting surface water onto adjoining sites, increasing the risk of flooding on those sites.

23.2 As noted in paragraph 22.4 above, although the need for sustainable design and construction is not specific to Camden, our dense built-up environment limits the ways sustainability can be addressed. The efficient use and disposal of water and the minimisation of surface water run-off are elements of sustainable design and construction that need to be addressed sensitively taking into account Camden's specific characteristics.

23.3 Core Strategy policy CS13 – *Tackling climate change through promoting higher environmental standards* sets out our overall approach to tackling climate change which includes reducing our water consumption and reducing the risk of surface water flooding. Map 2 and policy CS13 identify areas of the borough that have been affected by sewer or surface water flooding in the past as well as areas identified as being at risk of surface water flooding.

23.4 Policy DP23 contributes to the implementation of the strategy set out in policy CS13 by seeking to reduce water consumption and limit the amount of waste water entering the combined storm water and sewer network. Policy DP23 should be read in conjunction with policy Core Strategy CS13, policy DP22 – *Sustainable design and construction* above and the North London Strategic Flood Risk Assessment.

DP **POLICY**

DP23 – Water

The Council will require developments to reduce their water consumption, the pressure on the combined sewer network and the risk of flooding by:

a) incorporating water efficient features and equipment and capturing, retaining and re-using surface water and grey water on-site;

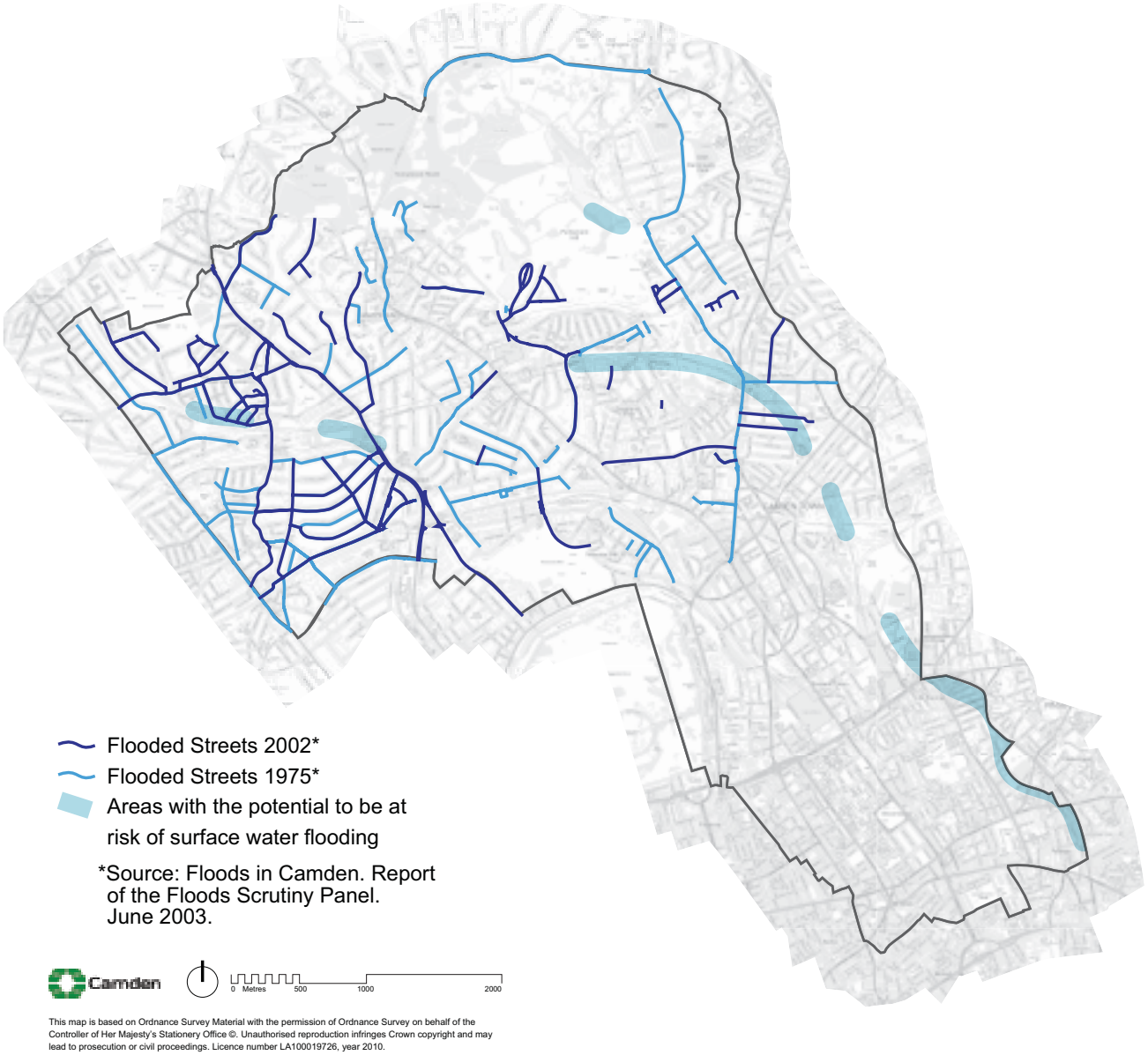
b) limiting the amount and rate of run-off and waste water entering the combined storm water and sewer network through the methods outlined in part a) and other sustainable urban drainage methods to reduce the risk of flooding;

c) reducing the pressure placed on the combined storm water and sewer network from foul water and surface water run-off and ensuring developments in the areas identified by the North London Strategic Flood Risk Assessment and shown on Map 2 as being at risk of surface water flooding are designed to cope with the potential flooding;

d) ensuring that developments are assessed for upstream and downstream groundwater flood risks in areas where historic underground streams are known to have been present; and

d) encouraging the provision of attractive and efficient water features.

Map 2: Flood Risk



23.5 We only consume a small proportion of water that enters a building. Most of the water we use is for washing and flushing the toilet and therefore leaves the site again. The pumping and cleaning of water to drinking level consumes energy. In order to save energy and drinking water, water should be consumed efficiently and, where possible, treated and consumed close to source. Most of the water we do not consume, including rainfall, ends up in the combined storm water and sewer system. Our increased use of water, along with a growing population and increasing use of impervious surfaces, means more waste water is entering the combined storm water and sewer system, putting pressure on it.

Efficient use of water

23.6 Developments must be designed to be water efficient to minimise the need for further water infrastructure. This can be through the installation of water efficient appliances and by capturing and re-using rain water and grey water on-site. Rainwater harvesting systems are discussed in paragraph 23.8 below. Grey water use captures water from sinks, showers and washing machines for its re-use. Major developments and high or intense water use developments, such as hotels, hostels and student housing, should include a grey water harvesting system. Where such a system is not feasible or practical, developers must demonstrate to the Council's satisfaction that this is the

case. We will assess the performance of water-saving measures against the Water category in BREEAM, EcoHomes or the Code for Sustainable Homes assessments (see our Camden Planning Guidance supplementary document for further details).

Reducing surface water run-off

23.7 The water efficient methods expected above will help reduce the overall amount of waste water entering the combined storm water and sewer system so it retains some capacity to deal with heavy rainfall. The volume and rate of run-off from heavy rainfall can be reduced through the use of sustainable urban drainage systems (SUDS), including green and brown roofs, pervious paving and detention ponds or tanks. We will seek to achieve the most sustainable methods of SUDS wherever possible. The Council's expectations for the design and location of green and brown roofs are set out in policy DP22 – *Promoting sustainable design and construction*. Where green or brown roofs are provided we will expect them to be designed to reduce run-off.

23.8 Some sustainable urban drainage methods enable captured water to be re-used, and are generally known as 'rainwater harvesting systems'. These systems capture water falling on a site, in particular on roofs and impervious paved areas, and use the water for irrigation, flushing of toilets and, where the water is clean enough, washing clothes. With appropriate filtration, the capture of rainwater can also be incorporated into a grey water system.

23.9 It is important that water is captured from the top of the water catchment area, which generally starts at the top of a hill, to prevent flooding of more susceptible sites below. We will require all new build developments where run-off is likely to have an impact on buildings downstream (see Map 2) to include a green or brown roof and/or a rainwater harvesting system, with the aim of achieving a 'greenfield' rate of run-off. A greenfield run-off rate is one that reflects the natural rate of water run-off from a site before it was developed. All other development that increases the amount of impervious surface will be expected to minimise the amount and rate of run-off from the site to at least the existing rate. The size of a rainwater harvesting system should take into account annual rain yield, consumption rates and the need for on-site detention to prevent flooding. Information on sizing based on annual yield and consumption rates can be obtained from the Environment Agency.

Minimising flood risk

23.10 All sites over one hectare are required by government Planning Policy Statement (PPS) 25 – *Development and Flood Risk* to produce a site specific Flood Risk Assessment. In Camden these assessments should focus on the management of surface water run-off and should address the amount of impermeable surfaces resulting from the development and the potential for increased flood risk both on site and elsewhere within the catchment.

23.11 The area shown on Map 2 is known to be at risk from local surface water flooding. It is especially important for development within this area to be designed to cope with being flooded without placing additional pressure on adjoining sites and on the combined sewer system. For example, development should not prevent the flow of water across its site where this would lead to water build up or divert water onto an adjoining site. Instead, water should be captured and stored for re-use or for slow release to the combined sewer. Where a site is known to have a particular drainage issue, development should not place additional strain on the existing drainage infrastructure. Within the areas shown on Map 2 we will expect water infrastructure to be designed to cope with a 1 in 100 year storm event (including an appropriate allowance for climate change) in order to limit the flooding of, and damage to, property. Please see Planning Policy Statement 25 and its Practice Guide for further guidance on managing flood risk. The Council's Camden Planning Guidance supplementary document also contains further information on water and sustainable design and construction.

23.12 Development can have an impact on the water environment beyond the site where it takes place by altering the flow of water above and below ground and changing where water is absorbed or rises to the surface. For example, the construction of a basement could cause surface water flooding if its location forces water to the surface or could cause flooding elsewhere if the movement of water below ground is altered. Changing water movements can alter soil conditions in the wider area. Applications for developments in areas where historic underground streams are known to have been present will be required to include assessments of the potential for, and management of, groundwater flood risk (see our Camden Planning Guidance supplementary document for further information). Basements also affect the ability of the ground to absorb rain when soil is replaced by an impervious structure and can be particularly susceptible to flooding due to their underground location. In certain circumstances the use of basements may be restricted to non-habitable uses. For further detail on our approach to basements please see policy DP27-*Basements and lightwells*.

Water features

23.13 Water features can celebrate the importance of water and can be used as an educational tool. We will expect any water feature provided to be of a high quality and, where possible, provide some interpretation of the local environment or community. For example, any water feature provided along the route of the old Fleet River, which used to run from Hampstead Heath to the City of London, could take the opportunity to provide an interpretation of this lost watercourse. Any proposed water feature should also be water and energy efficient.

Key evidence and references

- Camden Sustainability Task Force Report on Food, Biodiversity and Water; 2008
- Towards a Sustainable Camden – Camden's Environmental Sustainability Delivery Plan 2008-2012
- Sustainable Design and Construction Supplementary Planning Guidance; Mayor of London; 2006
- Planning Policy Statement 25 – Development and Flood Risk; CLG, 2006
- Planning Policy Statement 25 – Development and Flood Risk – Practice Guide; CLG, 2008
- North London Strategic Flood Risk Assessment; Mouchel; 2008
- Greywater: An information guide; Environment Agency; 2008
- Harvesting Rainwater for domestic uses; Environment Agency; 2008

Improving and protecting our environment and quality of life

DP24. Securing high quality design

24.1 Core Strategy policy CS14 – *Promoting high quality places and conserving our heritage* sets out the Council's overall strategy on promoting high quality places, seeking to ensure that Camden's places and buildings are attractive, safe, healthy and easy to use and requiring development to be of the highest standard of design that respects local context and character. Camden has a unique and rich built and natural heritage, with many areas with their own distinct character, created by a variety of elements including building style and layout, history, natural environment including open spaces and gardens, and mix of uses. We have a duty to respect these areas and buildings and, where possible, enhance them when constructing new buildings and in alterations and extensions.

24.2 Policy DP24 contributes to implementing the Core Strategy by setting out our detailed approach to the design of new developments and alterations and extensions. These principles will ensure that all parts of Camden's environment are designed to the highest possible standards and contribute to providing a healthy, safe and attractive environment.

24.3 The Core Strategy also sets out our approach to other matters related to design, such as tackling climate change through promoting higher standards (CS13), the importance of community safety and security (CS17) and protecting amenity from new development (CS5). Further guidance on design is contained in our Camden Planning Guidance supplementary document.

DP POLICY

DP24 – Securing high quality design

The Council will require all developments, including alterations and extensions to existing buildings, to be of the highest standard of design and will expect developments to consider:

a) character, setting, context and the form and scale of neighbouring buildings;

b) the character and proportions of the existing building, where alterations and extensions are proposed;

c) the quality of materials to be used;

d) the provision of visually interesting frontages at street level;

e) the appropriate location for building services equipment;

f) existing natural features, such as topography and trees;

g) the provision of appropriate hard and soft landscaping including boundary treatments;

h) the provision of appropriate amenity space; and

i) accessibility.



Promoting good design

24.4 The Council is committed to design excellence and a key strategic objective of the borough is to promote high quality, sustainable design. This is not just about the aesthetic appearance of the environment, but also about enabling an improved quality of life, equality of opportunity and economic growth. We will therefore apply policy DP24 to ensure that all developments throughout the borough, including alterations and extensions to existing buildings, are of the highest standard of design. In accordance with government guidance in Planning Policy Statement (PPS) 1 – *Delivering Sustainable Development* we will not accept design that is inappropriate to its context or which fails to take opportunities to improve the character and quality of an area and the way that it is used by residents and visitors.

24.5 Camden is a densely built-up borough where most development involves the replacement, extension or conversion of existing buildings. Design should respond creatively to its site and its context. This concerns both smaller-scale alterations and extensions and larger developments, the design and layout of which should take into account the pattern and size of blocks, open spaces, gardens and streets in the surrounding area (the 'urban grain').

24.6 The Council seeks to encourage outstanding architecture and design, both in contemporary and more traditional styles. Innovative design can greatly enhance the built environment and, unless a scheme is within an area of homogenous architectural style that is important to retain, high quality contemporary design will be welcomed. When assessing design, we will take into account government/CABE guidance *By Design – Urban Design in the planning system: towards better practice* and our own Camden Planning Guidance supplementary document.

24.7 Development should consider:

- the character and constraints of its site;
- the prevailing pattern, density and scale of surrounding development;
- the impact on existing rhythms, symmetries and uniformities in the townscape;
- the compatibility of materials, their quality, texture, tone and colour;
- the composition of elevations;
- the suitability of the proposed design to its intended use;
- its contribution to public realm, and its impact on views and vistas; and
- the wider historic environment and buildings, spaces and features of local historic value.

24.8 Buildings should be designed to be as sustainable as possible. Environmental design and construction measures are set out in Policy DP22 – *Promoting sustainable design and construction*. Sustainable development also embraces principles of social sustainability which can be addressed by new development which:

- provides comfortable, safe, healthy and accessible space for its users;
- is fit for purpose and can accommodate future flexibility of use;
- provides a mix of uses and types of accommodation and provides for a range of needs within the community; and
- provides sufficient amenity space for the promotion of health and wellbeing.

24.9 The re-use of existing buildings preserves the 'embodied' energy expended in their original construction, minimises construction waste and reduces the use of new materials. Many historic buildings display qualities that are environmentally sustainable and have directly contributed to their survival, for example the use of durable, natural, locally sourced materials, 'soft' construction methods, good room proportions, natural light and ventilation and ease of alteration. The retention and adaptation of existing buildings will be encouraged.

24.10 Due to the dense nature of Camden with extensive range and coverage of heritage assets, such as conservation areas, numerous listed buildings and five strategic views and two background views crossing the borough, the Council does not consider that it is practical to identify broad areas either suitable, or not suitable, for tall buildings. In the borough, a site may be suitable for a tall building while adjacent sites are not, due to impact on either views, conservations areas or listed buildings. Indeed, in some cases, suitability for a tall building differs across a single site. Given Camden's strategic environmental characteristics, the entire borough is considered as being within the 'sensitive' category, as defined by the English Heritage/CABE Guidance on Tall Buildings (2007). Tall building proposals in Camden will therefore merit detailed design assessments. As part of the revision of the Camden Planning Guidance SPD further clarity will be provided on tall buildings and design issues in Camden.

Respecting local character

24.11 Given the highly built-up nature of Camden, careful consideration of the characteristics of a site, features of local distinctiveness, and the wider context is needed in order to achieve high quality development which integrates into its surroundings.

24.12 In order to best preserve and enhance the positive elements of local character within the borough, we need to recognise and understand the factors that create it. Designs for new buildings, and alterations and extensions, should respect the character and appearance of the local area and neighbouring buildings. Within areas of distinctive character, development should reinforce those elements which create the character. Where townscape is particularly uniform attention should be paid to responding closely to the prevailing scale, form and proportions and materials. In areas of low quality or where no pattern prevails, development should improve the quality of an area and give a stronger identity.

24.13 Development should not undermine any existing uniformity of a street or ignore patterns or groupings of buildings. Overly large extensions can disfigure a building and upset its proportions. Extensions should therefore be subordinate to the original building in terms of scale and situation unless, exceptionally, it is demonstrated that this is not appropriate given the specific circumstances of the building. Past alterations or extensions to surrounding properties should not necessarily be regarded as a precedent for subsequent proposals for alterations and extensions.

24.13 Design and Access statements should include an assessment of local context and character, and set out how the development has been informed by, and responds to it. We have prepared a series of Conservation Area Statements, Appraisals and Management Plans which describe the character and appearance of individual conservation areas and set out how the Council considers each can be conserved and enhanced. These should be used by developers to inform their understanding of the special character of the area, and we will take these into account when assessing development proposals in conservation areas. Development Policy DP25 – *Conserving Camden's heritage* provides further guidance on the preservation and enhancement of the historic environment.

Detailing and materials

24.15 Architectural detailing should be carefully integrated into a building. In new development, detailing should be carefully considered so that it conveys quality of design and creates an attractive and interesting building. Architectural features on existing buildings, such as cornices, mouldings, architraves, porches and chimneys should be retained wherever possible, as their loss can harm a building by eroding its detailing. The insensitive replacement of windows and doors and the cladding and painting of masonry can also spoil the appearance of buildings and can be particularly damaging if the building forms part of a uniform group.

24.16 Schemes should incorporate materials of an appropriately high quality. The durability and visual attractiveness of materials will be carefully considered along with their texture, colour and compatibility with existing materials. Alterations and extensions should be carried out in materials that match the original or neighbouring buildings, or, where appropriate, in materials that complement or enhance a building or area.

Contributing to the street frontage

24.17 Buildings should be visually interesting at street level, with entrances and windows used to create active frontages, which allow overlooking of public areas, provide a sense of vitality and contribute to making Camden a safer place (see Core Strategy policy CS17). Ground floors should be occupied by active uses and should not turn their back on streets and other public spaces.

Incorporating building services equipment

24.18 Building services equipment, such as air cooling, heating, ventilation and extraction systems, lift and mechanical equipment, as well as fire escapes, ancillary plant and ducting should be contained within the envelope of a building or be located in a visually inconspicuous position.

Responding to natural features

24.19 New developments should respond to the natural assets of a site and its surroundings, such as slopes and height differences, trees and other vegetation. Extensions and new developments should not cause the loss of any existing natural habitats, including private gardens. Core Strategy policy CS15 – *Protecting and improving our parks and open spaces and encouraging biodiversity* provides further guidance on nature conservation in Camden and the Council's strategy for trees.

24.20 Development within rear gardens and other undeveloped areas can often have a significant impact upon the amenity and character of an area. Gardens help shape their local area, provide a setting for buildings and can be important visually. Therefore they can be an important element in the character and identity of an area (its 'sense of place'). We will resist development that occupies an excessive part of a garden, and where there is a loss of garden space which contributes to the character of the townscape.

24.21 Development will not be permitted which fails to preserve or is likely to damage trees on a site which make a significant contribution to the character and amenity of an area. Where appropriate the Council will seek to ensure that developments make adequate provision for the planting and growth to maturity of large trees.



Incorporating Landscaping

24.22 As with buildings, consideration of context is essential in the design of new hard and soft landscaping. Hard landscape elements (surfaces, boundary treatments etc), and the materials from which they are made, play a significant role in defining the character and attractiveness of a site or area and reinforcing local distinctiveness. New planting can contribute to the attractiveness of a development, soften and balance the impact of buildings and contribute to the biodiversity value of a site. Effective maintenance is often essential to the success of soft landscaping (shrubs, grass etc) and, where appropriate, the Council will expect planting plans to be accompanied by a maintenance schedule. New hard and soft landscaping should be of high quality and should positively respond to its local character.

Providing amenity space

24.23 Private outdoor amenity space can add significantly to resident's quality of life and applicants are therefore encouraged to explore all options for the provision of new private outdoor space. Gardens, balconies and roof terraces are greatly valued and can be especially important for families. However, the densely built up nature of the borough means that the provision of private amenity space can be challenging, and the Council will require that the residential amenity of neighbours be preserved, in accordance with policy DP26 – *Managing the impact of development on occupiers and neighbours* and Core Strategy policy CS5 – *Managing the impact of growth and development.*

Accessibility

24.24 In line with policy DP29 – *Improving access* the Council will expect all buildings and places to meet the highest practicable standards of access and inclusion. Any adaptation of existing buildings must therefore address this issue and respond to access needs whilst ensuring that alterations are sympathetic to the building's character and appearance. Policy DP25 – *Conserving Camden's heritage* provides further guidance on providing access to listed buildings.

Key evidence and references

- By Design: Urban Design in the Planning System – Towards Better Practice; DETR/CABE; 2000
- Planning Policy Statement (PPS) 1 – Delivering Sustainable Development, 2005
- Planning Policy Statement (PPS) 12 – Local Spatial Planning, 2008
- Making design policy work, CABE; 2005
- The London Plan (consolidated with alterations since 2004); Mayor of London; 2008
- Building in Context, CABE/English Heritage, 2002
- Tree and Woodland Framework for London, Mayor of London, 2005

DP26. Managing the impact of development on occupiers and neighbours

26.1 Camden's Core Strategy seeks to sustainably manage growth so that it takes place in the most appropriate locations and meets our needs while continuing to conserve and enhance the features that make Camden such an attractive place to live, work and visit (see policy CS1). Promoting and protecting high standards of amenity is a key element in this and will be a major consideration when the Council assesses development proposals. Core Strategy policies CS5 – *Managing the impact of growth and development* and CS14 – *Promoting high quality places and conserving our heritage* set out our overall approach to protecting the amenity of Camden's residents, workers and visitors, a major factor in people's quality of life. Policy DP26 contributes to the implementation of the Core Strategy by making sure that the impact of a development on occupiers and neighbours is fully considered.

DP POLICY

DP26 – Managing the impact of development on occupiers and neighbours

The Council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. The factors we will consider include:

a) visual privacy and overlooking;

b) overshadowing and outlook;

c) sunlight, daylight and artificial light levels;

d) noise and vibration levels;

e) odour, fumes and dust;

f) microclimate;

g) the inclusion of appropriate attenuation measures.

We will also require developments to provide:

h) an acceptable standard of accommodation in terms of internal arrangements, dwelling and room sizes and amenity space;

i) facilities for the storage, recycling and disposal of waste;

j) facilities for bicycle storage; and

k) outdoor space for private or communal amenity space, wherever practical.

26.2 Development should avoid harmful effects on the amenity of existing and future occupiers and to nearby properties. When assessing proposals the Council will take account the considerations set out in policy DP26. The Council's Camden Planning Guidance supplementary document contains detailed guidance on the elements of amenity.

Visual privacy, overlooking, overshadowing, outlook, sunlight and daylight

26.3 A development's impact on visual privacy, overlooking, overshadowing, outlook, access to daylight and sunlight and disturbance from artificial light can be influenced by its design and layout, the distance between properties, the vertical levels of onlookers or occupiers and the angle of views. These issues will also affect the amenity of the new occupiers. We will expect that these elements are considered at the design stage of a scheme to prevent potential negative impacts of the development on occupiers and neighbours. To assess whether acceptable levels of daylight and sunlight are available to habitable spaces, the Council will take into account the standards recommended in the British Research Establishment's Site Layout Planning for Daylight and Sunlight – *A Guide to Good Practice (1991)*.

Artificial lighting levels

26.4 Lighting creates a sense of safety and can enable activities in the evenings and at night. It can be used to highlight landmark buildings and add vitality to our streets. Lighting can increase the potential for natural surveillance and, where used correctly, can reduce the opportunity for criminal activity and increase the likelihood of it being challenged and/or reported. However, poorly designed internal and external lighting or lighting that operates for an excessive period of time is a form of pollution that can harm the quality of life for those living nearby, affect wildlife and waste energy. Camden's dense character means that light pollution can be a bigger problem in the borough than in lower density areas where uses are not so close together. For example, lighting from conservatories can affect neighbours living above, as well as to the sides and rear, and the lighting of advertisements can affect people living nearby. Glare and light spillage from poorly designed lighting can make it less easy to see things at night and effect wildlife as well as people. Lighting should only illuminate the intended area and not affect or impact on its surroundings. Schemes involving floodlighting and developments in sensitive areas, such as adjacent to sites of nature conservation importance, should employ a specialist lighting engineer accredited by the Institute of Lighting Engineers to ensure that artificial lighting causes minimal disturbance to occupiers and wildlife. For further details on lighting and occupiers and biodiversity please see our Camden Planning Guidance supplementary document.

Noise and vibration

26.5 Noise/vibration pollution has a major effect on amenity and health and can be a particularly significant issue in Camden given the borough's dense urban nature. More detail on how to prevent disturbance from noise and vibration, including the requirement for mitigation measures can be found in policy DP28.

Odours, fumes and dust

26.6 Camden suffers from extremely poor air quality which has a harmful impact on health and the environment. More detail on how the Council is tackling poor air quality can be found in policy DP32. Camden Planning Guidance provides information on how developments should be designed to prevent occupants from being exposed to air pollution, including mitigation measures.

26.7 Odours, fumes and dust can be generated from commercial cooking, industrial process and construction and demolition. We will require all development likely to generate odours to prevent them from being a nuisance by installing appropriate extraction equipment and other mitigation measures. Further details on mitigation measures and where extraction equipment should be located can be found in Camden Planning Guidance. Further details on limiting noise from extraction equipment can be found in DP28. The Council will limit the disturbance from dust due to construction and demolition by expecting developers and their contractors to follow the London Councils' Best Practise Guidance *The control of dust and emissions from construction and demolition*. We will also expect developers to sign up to the Considerate Constructors Scheme. Details of how these will be implemented should be provided in a Construction Management Plan. Please see below for further details on Construction Management Plans.

Microclimate

26.8 Developments, especially when large, can alter the local climate. For example, a light coloured building that reflects heat will stay cool on the inside and the outside, whereas a dark building will absorb heat during the day to raise internal temperatures and slowly release this heat as the temperature cools, keeping the local air temperature warmer. Buildings can also affect the flow of air and cause wind tunnels. All developments should consider local topography and the local microclimate in their design. Developments large enough to alter the local climate will be required to submit a statement demonstrating how the design has considered local conditions. Detail of what is expected in such a statement can be found in the Camden Planning Guidance.

Attenuation measures and Construction Management Plans

26.9 Most potential negative effects of a development can be designed out or prevented through mitigation measures. For example, appropriately located and insulated extraction equipment can prevent nuisance caused by strong odours and fumes. An air tight building with mechanical ventilation and good insulation can make living adjacent to railways and busy roads acceptable with regards to noise, vibration and internal air quality. We will require any attenuation measures to be identified prior to planning permission being granted and secured for the lifetime of the development.

26.10 Disturbance from development can also occur during the construction phase. Measures required to reduce the impact of demolition, excavation and construction works must be outlined in a Construction Management Plan. We will require Construction Management Plans to identify the potential impacts of the construction phase of the development and state how any potential negative impacts will be mitigated. Construction Management Plans may be sought for:

- major developments;
- basement developments;
- developments involving listed buildings or adjacent to listed buildings;
- developments that could affect wildlife;
- developments on sites with poor or limited access; and
- developments that could cause significant disturbance due to their location or the anticipated length of the, demolition, excavation or construction period.

For further details on construction management plans please refer to our Camden Planning Guidance supplementary. Please see policy DP27 for more on our approach to basements.

Standards of accommodation

26.11 The size of a dwelling and its rooms, as well as its layout, will have an impact on the amenity of its occupiers. Residential standards and guidance are contained in our Camden Planning Guidance supplementary document. Policy DP6 outlines our approach to Lifetime Homes and further detail can be found in Camden Planning Guidance. Details on our approach to providing facilities for waste and for bicycle storage can also be found in Camden Planning Guidance. Details on our requirements for the provision of cycle parking can be found in DP18 – *Parking standards and limiting the availability of car parking.*

26.12 Outdoor amenity space provides an important resource for residents, which is particularly important in Camden given the borough's dense urban environment. It can include private provision such as gardens, courtyards and balconies, as well as communal gardens and roof terraces. The Council will expect the provision of gardens in appropriate developments, and particularly in schemes providing larger homes suitable for families. However, we recognise that in many parts of the borough this will not be realistic or appropriate. In these locations, the provision of alternative outdoor amenity space, for example, balconies, roof gardens or communal space will be expected. These amenity spaces should be designed to limit noise and disturbance of other occupiers and so not to unacceptably reduce the privacy of other occupiers and neighbours.

Key evidence and references

- Air Quality Action Plan 2009-13
- Camden's Noise Strategy, 2002
- Planning Policy Guidance (PPG) 24: Planning and Noise
- The London Plan (consolidated with alterations since 2004); Mayor of London; 2008
- Cleaning London's Air: The Mayor's Air Quality Strategy (2002)
- Sounder City – The Mayor's Ambient Noise Strategy; Mayor of London; 2004
- Institution of Lighting Engineers web-site, http://www.ile.org.uk

DP27. Basements and lightwells

27.1 The Core Strategy policy CS14 outlines our overall strategy to promoting high quality places. It seeks to secure development of the highest standard of design which respects local context and character. Policy DP27 helps to deliver this by setting out our detailed approach to basements and lightwells. With a shortage of development land and high land values in the borough, the development of basements is becoming increasingly popular as a way of gaining additional space in homes without having to relocate to larger premises. Basements are often also included in developments in the Central London part of Camden and used for various purposes including commercial, retail and leisure uses, servicing and storage.

DP POLICY

DP27 – Basements and lightwells

In determining proposals for basement and other underground development, the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability, where appropriate. The Council will only permit basement and other underground development that does not cause harm to the built and natural environment and local amenity and does not result in flooding or ground instability. We will require developers to demonstrate by methodologies appropriate to the site that schemes.

a) maintain the structural stability of the building and neighbouring properties;

b) avoid adversely affecting drainage and run-off or causing other damage to the water environment;

c) avoid cumulative impacts upon structural stability or the water environment in the local area;

and we will consider whether schemes:

d) harm the amenity of neighbours;

e) lead to the loss of open space or trees of townscape or amenity value;

f) provide satisfactory landscaping, including adequate soil depth;

g) harm the appearance or setting of the property or the established character of the surrounding area; and

h) protect important archaeological remains.

The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding.

In determining applications for lightwells, the Council will consider whether:

i) the architectural character of the building is protected;

j) the character and appearance of the surrounding area is harmed; and

k) the development results in the loss of more than 50% of the front garden or amenity area.

27.2 Although basement developments can help to make efficient use of the borough's limited land it is important that this is done in a way that does not cause harm to the amenity of neighbours, affect the stability of buildings, cause drainage or flooding problems, or damage the character of areas or the natural environment.

27.3 For larger schemes, where a basement development extends beyond the footprint of the original building or is deeper than one full storey below ground level (approximately 3 metres in depth) the Council will require evidence, including geotechnical, structural engineering and hydrological investigations and modelling, from applicants to ensure that basement developments do not harm the built and natural environment or local amenity. The level of information required will be commensurate with the scale and location of the scheme. These larger schemes will be expected to provide evidence against each of the considerations (a) to (h) in policy DP27. Smaller schemes will

be expected to submit information which relates to any specific concerns for that particular scheme or location (e.g. any history of flooding at the site or in the vicinity of the site, the presence of underground watercourses, proximity to water bodies such as the ponds on Hampstead Heath, structural instability of the developed or of neighbouring properties, or unstable land). The Council will assess whether any predicted damage to neighbouring properties from the development is acceptable or can be satisfactorily ameliorated by the developer. Applicants should contact the Council's Duty Planning Service about the level of information that should be provided for a particular scheme. Where hydrological and structural reports are required, they should be carried out by independent professionals (e.g. Chartered Structural Engineers). As there is potential for the effects of a basement development on the water environment, subsoil etc to extend beyond the site itself and its neighbouring properties, such reports should also consider the potential wider impacts of basement schemes.

27.4 Many potential impacts to the amenity of adjoining neighbours are limited by underground development. However, the demolition and construction phases of a development can have an impact on amenity and this is a particular issue for basements. The Council will seek to minimise the disruption caused by basement development and may require Construction Management Plans to be submitted with applications. Please see our Camden Planning Guidance supplementary document for further information on Construction Management Plans.

27.5 When considering applications for basement extensions, Building Control will need to be satisfied that effective measures will be taken during excavation, demolition and construction works to ensure that structural damage is not caused to the subject building. (Demolition is only a planning consideration for listed buildings and buildings which make a positive contribution to conservation areas.)

27.6 Government Planning Policy Statement (PPS) 25 – *Development and Flood Risk* states that inappropriate development should be avoided in areas at risk of flooding and categorises basement dwellings as "highly vulnerable" to flooding. The Council will not allow habitable rooms and other sensitive uses for self contained basement flats and other underground structures in areas at risk of flooding. No parts of the borough are currently identified by the Environment Agency as being prone to flooding from waterways although some areas are subject to localised surface water flooding, as identified in the North London Strategic Flood Risk Assessment. Please see Core Strategy policy CS13 – *Tackling climate change and promoting higher environmental standards* and DP23 – *Water* for more on the location of these areas and our approach to flooding. The Council will require the submission of a development-specific flood risk assessment with applications for basements on streets identified as being at flood risk or in an area where historic underground watercourses are known to have been present, in line with the criteria set out in PPS25, unless it can be demonstrated that the scale of the scheme is such that there is no, or minimal, impact on drainage conditions (see our Camden Planning Guidance supplementary document for further information).

27.7 Some parts of Camden contain unusual and unstable subsoils, along with many underground streams and watercourses, making drainage and structural safety key concerns (including around Hampstead Heath). In such areas, applications for basement developments may be required to show through hydrological modelling whether it will be possible through the inclusion of drainage systems to prevent any significant harm from changes to groundwater levels or flow.

27.8 The use of sustainable urban drainage systems (SUDS) will be encouraged in all basement developments that extend beyond the profile of the original building. For basements that consume more than 50% of the garden space, and are considered otherwise to be acceptable, the use of SUDS will be required to mitigate any harm to the water environment. Further guidance on sustainable urban drainage is contained in policy DP23 – *Water*.

27.9 A basement development that does not extend beyond the footprint of the original building and is no deeper than one full storey below ground level (approximately 3 metres in depth) is often the most appropriate way to extend a building below ground. Proposals for basements that take up the whole rear and/or front garden of a property are unlikely to be acceptable. Sufficient margins should be left between the site boundaries and any basement construction to sustain growth of vegetation and trees. Developments should provide an appropriate proportion of planted material above the structure to mitigate the reduction in the natural storm water infiltration capacity of the site and/or the loss of biodiversity caused by the development. This will usually take the form of a soft landscaping or detention pond on the top of the underground structure, which is designed to temporarily hold a set amount of water while slowly draining to another location. It will be expected that a minimum of 0.5 metres of soil be provided above the basement development, where this extends beyond the footprint of the building, to enable garden planting.

27.10 Consideration should also be given to the existence of trees on or adjacent to the site, including street trees, and the root protection zones needed by these trees. Where there are trees on or adjacent to the site, the Council will require an arboricultural report to be submitted as part of a planning application.

27.11 In the case of listed buildings, applicants will be required to consider whether basement and underground development preserves the existing fabric, structural integrity, layout, inter-relationships and hierarchy of spaces, and any features that are architecturally or historically important. Listed buildings form an intrinsic element of the character of conservation areas and therefore basement development which harms the special architectural and historic interest of a listed building is also likely to fail to preserve or enhance the character or appearance of the conservation area in which it is located. Further guidance on design and heritage is contained in policies DP24 – *Securing high quality design* and DP25 – *Conserving Camden's heritage*.

27.12 The Council has produced a guidance note on its approach to basement development – New Basement Development and Extensions to Existing Basement Accommodation Guidance – which contains information on planning matters and other relevant regulations and requirements. Many other policies in Camden Development Policies and Camden's Core Strategy are relevant to basement development and will be taken into account when assessing such schemes, for example Core Strategy policies CS13 – *Tackling climate change and promoting higher environmental standards*, CS14 – *Promoting high quality places and conserving our heritage* and CS15 – *Protecting and improving open spaces and encouraging biodiversity*, and Development Policies DP22 – Promoting sustainable design and construction, DP23 – *Water*, DP24 – *Securing high quality design* and DP25 – *Conserving Camden's heritage*.

Key evidence and references

- North London Strategic Flood Risk Assessment, Mouchel; 2008
- Floods in Camden – Report of the Floods Scrutiny Panel; London Borough of Camden; June 2003
- Planning Policy Statement 9: Biodiversity and Geological Conservation
- Planning Policy Statement 25: Development and Flood Risk

DP32. Air quality and Camden's Clear Zone

32.1 The Core Strategy highlights the need to promote higher standards of air quality within the borough. It is recognised that parts of Camden have some of the poorest air quality levels in London and consequently the whole of the borough has been declared an Air Quality Management Area. The Council has produced an Air Quality Action Plan that identifies actions and mitigating measures necessary to improve air quality in the borough.

32.2 A key challenge therefore is to make our local environment better by reducing air pollution. This underpins many of the Core Strategy policies, including CS9 – *Achieving a successful Central London*, CS11 – *Promoting sustainable and efficient travel*, CS13 – *Tackling climate change through promoting higher environmental standards* and CS16 – *Improving Camden's health and well-being*.

32.3 The designation of Central London as a Clear Zone region is a key way to reduce congestion and promote walking and cycling as a way of improving the borough's air quality.

DP POLICY

DP32 – Air quality and Camden's Clear Zone

The Council will require air quality assessments where development could potentially cause significant harm to air quality. Mitigation measures will be expected in developments that are located in areas of poor air quality.

The Council will also only grant planning permission for development in the Clear Zone region that significantly increases travel demand where it considers that appropriate measures to minimise the transport impact of development are incorporated. We will use planning conditions and legal agreements to secure Clear Zone measures to avoid, remedy or mitigate the impacts of development schemes in the Central London Area.

Air Quality

32.4 The Council will take into account impact on air quality when assessing development proposals. Regard will be paid to Camden's Air Quality Action Plan and to Cleaning London's Air: The Mayor's Air Quality Strategy. Where development could potentially cause significant harm to air quality, we require an air quality assessment. Where the assessment shows that a development would cause significant harm to air quality, planning permission will be refused unless mitigation measures are adopted to reduce the impact to acceptable levels. Further guidance on air quality and when assessments will be required is provided in the Council's Camden Planning Guidance supplementary planning document.

32.5 Our growth areas of Euston, Kings Cross, Holborn, Tottenham Court Road and West Hampstead (see Core Strategy policy CS2) are located along busy roads and currently experience poor levels of air quality and disturbance from noise. Developments in these areas will need to be well protected against air and noise pollution to ensure they are suitable for occupation. Where mechanical ventilation is required due to poor environmental conditions we will expect developments to incorporate high standards of energy efficient design, for example 'Passivhaus' principles. Policy DP22 – *Promoting sustainable design and construction* gives more guidance on energy efficient design and Passivhaus. Our Camden Planning Guidance supplementary document gives more information on mitigating against poor air quality and Passivhaus principles.

32.6 Core Strategy policy CS13 promotes the use of renewable energy technologies to reduce carbon emissions and tackle climate change. The burning of biomass in a boiler is identified as a renewable energy resource in the Mayor's Energy Strategy. Boilers can burn solid biomass or liquid biofuels and are popular on high density sites with small footprints as their use can be the only way for development to reduce their carbon emissions by 20%. However, in central London there are air quality implications for the use of biomass as higher levels of nitrogen oxides (NOx) and particulates are released than conventional gas boilers or gas-fired community heating facilities. Given the existing poor air quality in Camden, the use of biomass as a renewable energy source will be the Council's least preferred option for the provision of renewable energy. We will expect developments to focus on energy efficiency and an efficient energy supply. Details on potential low carbon and renewable energy technologies can be found in the Camden Planning Guidance and also within policy DP22 – *Promoting sustainable design and construction*.

Camden's Clear Zone

32.7 Camden has been a leading council in the development of policies and initiatives to reduce the impact of transport on the environment. We are the lead borough in the Clear Zone Partnership, which covers the Central London part of Camden, with the City of Westminster and the Corporation of London. The Clear Zone Partnership aims to reduce congestion, noise and air pollution; encourage a shift to walking, cycling and public transport; and improve the urban realm. It uses partnership working, innovative technologies and sustainable transport measures to achieve these aims. The Council will expect development schemes to contribute to Clear Zone measures where appropriate.

32.8 The objectives of the Clear Zone region are to:

- reduce congestion and pollution through piloting sustainable transport measures and innovative technologies;
- improve air quality;
- reduce noise pollution;
- improve accessibility and mobility for walking, cycling and public transport;
- improve our streets, places and open spaces;
- make it easier for people to find their way around through installing pedestrian and cycling signage systems;
- encourage cycling by promoting secure cycle stations and city bike hire schemes;
- promote car-free and traffic reduced areas and developments, complemented by car clubs;
- reduce the amount of through traffic;
- promote good management in development schemes through construction, servicing and waste management plans; and
- promote alternatively fuelled and low emission vehicles for freight distribution and servicing.

32.9 More detail on the Clear Zone and the types of measures we will promote within it, such as travel plans, car clubs, construction, servicing and waste management plans, pedestrian and cycle facilities, is set out in the Council's Camden Planning Guidance supplementary document.

Key evidence and references

- Camden's Noise Strategy, 2002
- The London Plan (Consolidated with Alterations since 2004), 2008
- Planning Policy Guidance 24: Planning and noise
- Camden's Air Quality Action Plan
- Cleaning London's Air: The Mayor's Air Quality Strategy