6 Landscape design and trees

KEY MESSAGES

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

6.1 This guidance sets out how to protect trees and vegetation and design high quality landscapes in conjunction with development proposals to ensure an attractive, safe, accessible, sustainable and ecologically diverse environment.

6.2 This chapter sets out:

- how existing trees and landscape should be protected;
- what specific protection is given to some trees;
- how new landscaping should be incorporated into developments; and
- considerations for specific landscaped areas and types of landscaping.

6.3 The green landscape of the Borough is formed by parks and open spaces, railway and canal corridors, trees, gardens, green walls and roofs. These landscape components provide Camden's green infrastructure and play a key role in maintaining the local climate, reducing storm water run off, increasing biodiversity, providing space for urban food production and providing public enjoyment.

6.4 We expect landscape design and the provision of green infrastructure to be fully integrated into the design of development proposals from the beginning of the design process.

6.5 This section sets out further guidance on how we will apply Core Strategy Policy CS14 Promoting high quality places and conserving our heritage and Development Policy DP24 Securing high quality design.

Where does this guidance apply?

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

How should existing Trees and Landscape be protected?

Benefits of retaining vegetation and trees

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

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

How should existing trees and vegetation be protected?

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

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

- site layout and building lines;
- changes in levels;
- foundation design; and

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

NEW UTILITIES

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

6.10 The TCP should also identify the provision of sufficient space, above and below ground for new planting to develop and mature and existing trees to continue to grow (see paragraph 6.42 below regarding soft landscape design).

6.11 Where trees are identified to be retained it is imperative that contracting and site supervision procedures are in place to ensure that there is no damage during and after construction. We will normally seek a Method Statement which sets out how trees that are to be retained, both on and adjacent to the site will be protected. The Method Statement should identify how the provision of site accommodation, storage areas, site access and the positioning, heights and arcs of cranes will not affect the trees and vegetation that are to be protected.

Root zone

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

Crown spread

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

Specific protection for trees

6.12 Where a planning application involves works that affect trees either within the application site or on adjacent land (including street trees) we will require the following information to determine the application:

1. A Tree Survey
   (see section 4.2 of BS5837:2005)
2. A Tree Constraints Plan
   (see sections 5.2 and 5.3 of BS5837:2005)
3. An Arboricultural Implications Assessment
   (see section 6 of BS5837:2005)
4. An Arboricultural Method Statement for the protection of trees to be retained including a Tree Protection Plan
   (see section 7 of BS5837:2005)

6.13 Failure to supply the documents outlined above may lead to a planning application not being validated.

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

Tree preservation orders

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

TREE PRESERVATION ORDER

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

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

6.16 Works (above or below ground) to trees with a TPO require our permission. Application forms for these works are available at www.camden.gov.uk.

6.17 Works to a tree with a TPO required to enable the implementation of a planning permission are dealt with as part of a planning application. A further TPO application is not required.

Trees in Conservation Areas

SECTION 211

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

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

How should new landscaping be included into a development?

General principles

6.19 Urban landscape design encompasses the following types of spaces:

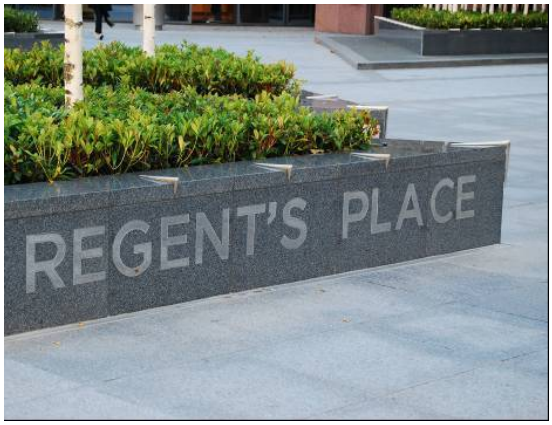
- streets and associated public spaces,
- parks, public and private squares, gardens,
- amenity and servicing space around buildings; and

- buildings themselves.

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

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

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



6.22 Planning applications will be assessed against

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

Specific areas that are landscaped and contain trees

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

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

- building roofs and walls.

Gardens

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

Front Gardens

6.25 The design of front gardens and forecourt parking areas make a large impact on the character and attractiveness of and area and in particular the streetscene. The design of front gardens and other similar forecourt spaces should:

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

Paving of front gardens

CHANGES TO PERMITTED DEVELOPMENT

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

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

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

Creating a cross over

6.27 For single family dwellings planning permission is not required for the creation of a cross over unless the property is affected by an Article 4 Direction or the cross over is to a classified road. However permission is required for the formation of a cross over from the Highways Authority. The Highways Authority will generally refuse permission where it would result in the loss of on street car parking spaces.

6.28 Planning permission is required for forecourt parking at the fronted of buildings divided into flats. Listed Building Consent is required to alterations to structures affecting listed buildings including structures within their curtilage.

Listed building consent

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

Rear Gardens

6.29 Rear gardens are important as they:

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

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

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

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

Root protection zone

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

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

Access and servicing areas

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

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

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

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

Boundary Walls, Fences and Railings

6.35 Boundary walls, fences and railings form the built elements of boundary treatments. They should be considered together with the potential for elements of soft landscaping. For example, we encourage the combination of low brick boundary walls and hedges as a boundary treatment. Boundary treatments should:

- delineate public and private areas;
- contribute to qualities of continuity and enclosure within the street scene; and
- provide site security and privacy.

6.36 Due to the prominence of the boundary treatments in the streetscene we will expect the design, detailing and materials used to provide a strong positive contribution to the character and distinctiveness of the area and integrate the site into the streetscene.

6.37 With regards to boundary walls, fences and railings, we will expect that:

- you consider repairing boundary walls, fences and railings before they are replaced;
- they make a positive contribution to the appearance and character of the development site and to the streetscene;
- you consider designs to be effective for their function.
- the design and construction does not damage any on site or off site trees that are identified for retention (See paragraphs 6.15 to 6.18 above).

6.38 For boundary treatments around listed buildings or in a conservation area we will expect:

- the elements are repaired or replaced to replicate the original design and detailing and comprise the same materials as the original features
- the works preserve and enhance the existing qualities and context of the site and surrounding area

6.39 Planning Permission is not required for the erection of a boundary treatment no higher than 1m where it abuts the highway or 2m on any other boundary. These heights are measured from ground level and include any structure that may be attached for example a trellis attached to the top of boundary wall.

6.40 Listed Building consent may be required for any works to boundary treatments within the curtilage of a listed building.

Types of landscaping

6.41 Landscaping are divided into the following broad types:

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

Soft Landscape Details (Planting)

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

6.43 Functional objectives include:

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

Ecological Objectives include:

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

Aesthetic Objectives include:

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

Crown canopy

The uppermost layer in a forest or group of trees.

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

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

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

6.46 Maintenance requirements should be considered at the design stage in terms of ensuring there is access for maintenance, whether maintenance materials need to be stored on site and that there are available sources of water. Water conservation should be intrinsic to the design of a planting scheme whether it is by selecting drought tolerant plants, maintaining soil conditions conducive to water retention with, for example, mulching or providing for on site water harvesting and grey water recycling.

6.47 Planning applications will be assessed against the degree to which planting schemes meet their objectives and that the chosen objectives are appropriate for the site. Planning applications should be accompanied by:

1. a statement of the design objectives of planting plans;
2. planting plans indicating species, planting patterns, planting size and density; and
3. where appropriate managements plans.

Hard Landscape Details

6.48 Hard landscape is a term used to describe the hard materials used in landscape design such as paving, seating, water features, lighting, fences, walls and railings (see paragraphs 6.35 to 6.38 above for guidance on boundary walls, fences and railings and the chapter on Design excellence regarding the design of public space).

6.49 Hard landscape makes a significant contribution to the character of the Borough. The scale, type, pattern and mix of materials help define different uses and effects the perception of the surrounding buildings and soft landscape and overall quality of an area. To help integrate the development with its surroundings and contribute to the sustainability of the project we will expect:

- the selection of materials, patterning and methods of workmanship to consider those already at use in the area;
- traditional and natural materials to be used, especially in Conservation Areas (Guidance can be found in Conservation Area Statements, Appraisals and Management Plans); and
- the use of salvaged and re used materials, where appropriate.

6.50 The Council will discourage the replacement of soft landscaping with hard landscaping in order to preserve the environmental benefits of vegetation identified above. However where hard landscape is unavoidable we will seek sustainable drainage solution to any drainage (see CPG3 Sustainability chapter on Flooding).

Lighting

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

Landscaping on buildings

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

9 Designing safer environments

KEY MESSAGES

- You should demonstrate that all impacts of your proposal on crime and safety have been considered;
- Security features should be considered early in the design process.
- Designing out crime features should complement other design considerations.

9.1 Good design, where due consideration is given to community safety, can create safe and attractive places to live and work and also prevent the need for security measures which can be expensive, unattractive and reactive in nature.

9.2 The aim of this guidance is to ensure that development contributes towards breaking down the link between the built environment and crime and anti-social behaviour (ASB), wherever possible, by ensuring that all developments consider and address any impact on crime and the perceptions of crime that may arise.

9.3 This guidance relates to Core Strategy policy CS17 Making Camden a safer place, and Development Policy DP24 Securing high quality design.

9.4 This guidance applies to all planning applications that will result in a physical alteration to the built environment that may have an impact on crime, anti-social behaviour or community safety.

How can I design safer environments?

General principles

9.5 In accordance with Core Strategy policy CS17 Making Camden a safer place, we will require applicants to demonstrate that all impacts of their proposal on crime and community safety have been considered and addressed. Applicants should be able to demonstrate that they have consulted the Police Crime Prevention Design Adviser (details of which can be found at www.securedbydesign.com and that proposals take into account the advice given, where appropriate.

Police Crime Prevention Design Officer

Can provide professional risk management advice, at the design stage, on all aspects of security of a development.

Urban design

Urban design is concerned with improving the quality, appearance and functionality of places, particularly the public realm. It works on a scale larger then architecture and smaller then town planning.

Designing out crime

A method of minimising crime by designing or organising the environment in such a way that the opportunity for crime is reduced and potential offenders feel exposed and uncomfortable.

9.6 Good urban design will significantly reduce opportunities for crime and anti social behaviour. Security features should be considered early in the design process as it can be more difficult to incorporate features in a sensitive way at a later stage. It is important to take a proactive approach at an early stage to reduce risks and opportunities for crime and ASB to occur, rather than relying on reactive measures such as CCTV, which should be used as part of a package of measures to reduce crime. Incorporating designing out crime features into a development should complement other key design considerations. High quality architecture and design should still be achieved.

9.7 You should consider:

- good urban design principles, including active frontages to buildings and interesting and innovative design treatments that can reduce the need for physical barriers;
- using a local assessment of design to ensure that places are both well connected and secure;
- the effect of designing against crime on properties adjacent to and in the vicinity of a development, and the personal safety of people who will use the locality; and
- avoiding a ‘fortress approach’ as it tends to be unattractive and can result in an oppressive environment for both residents and passing pedestrians.

Active frontage

Building frontages which add interest and life to public spaces, through the use of doors and windows or shopfronts and lively uses.

9.8 We expect developments to reflect the considerations contained within the publication Safer Places – The Planning System and Crime Prevention (ODPM April 2004). This identifies seven attributes of sustainable communities that are particularly relevant to crime prevention. Therefore, we expect the following elements to be considered in planning proposals:

Access and movement	to, from and within any development
Structure	layout, type and design of buildings, and of public space
Surveillance	maximisation of overlooking, lighting, the promotion of active frontages and through the introduction of crime prevention measures
Ownership	clear delineation between public, communal, semi-private and private space
Physical protection	strengthening of the security of building in order to reduce or minimising the risk of attack or theft
Activity	compatible mix of uses and attractiveness and sustainability of any public realm components
Management and maintenance	inclusion of details of management and maintenance systems where appropriate

9.9 We require a crime impact assessment as part of the Design Statement to be included with all applications of 10 residential units or more or for sites of 1000 sq m or more. This should demonstrate that any impact on crime and antisocial behaviour has been considered, addressed and where appropriate designed out. For smaller schemes it will be expected that designing against crime principles will be incorporated into the scheme. These designing against crime principles are set out in Safer Places: The Planning System and Crime Prevention, ODPM, 2004.

Design Statement:

Documents that explain the design thinking behind a planning application. They should show that you have thought carefully about how everyone will be able to use the places you want to build.

Addressing Community Safety Concerns

9.10 To enhance community safety, we would like to see developments consider:

- maximising accessibility by encouraging usage of safe routes to, from and through developments;
- the design and layout of pedestrian, cycle and vehicular routes into and within the site, including how these integrate with existing patterns; and
- lighting and the use of CCTV where appropriate, accessibility and ease of movement through a development scheme, which can enhance overlooking, thereby reducing the opportunity for crime and anti-social behaviour and increasing perceptions of personal safety.

Movement and Gating

9.11 Gating can be seen as a solution to problems of crime and anti social behaviour. Gating and other ways of restricting access to developments

can have a divisive effect on communities, creating separate residential areas and often necessitating long alternative routes. It can create and reinforce negative perceptions of an area and for these reasons gating should be seen as a last resort.

9.12 We expect that developments will demonstrate the accepted principles of good urban design as laid out by the Commission for Architecture and the Built Environment (CABE) in 'By Design', a companion guide to Planning Policy Statement 1, which sets out the 7 objectives of urban design. One of these that is particularly relevant to movement and gating is "Ease of movement – a place that is easy to get to and move through. To promote accessibility and local permeability by making places that connect with each other and are easy to move through, putting people before traffic and integrating land use and transport."

9.13 We will not support applications for restricting access to, from or gating of, the public highway or designated open spaces that are currently accessible to the public. All applications which seek to reduce access to, from or through the public spaces will need to:

- explain clearly the rationale for the reduction in access and be able to demonstrate that it is an appropriate solution, which minimises negative impacts in, adjacent to and in the vicinity of the development;
- provide evidence of anti-social behaviour and crime to support the proposed restricted access; and
- demonstrate the alternative steps they have taken to address the problems.

9.14 We will consider whether the proposed restriction will:

- have an adverse impact on accessibility in the local area by reducing the opportunity for local people to use established routes. For further information refer to CPG4 Protecting and improving the quality of life (Access for all chapter);
- result in the loss of natural surveillance by neighbours and passers-by thereby increasing the opportunity for crime and ant-social behaviour;
- necessitate long alternative routes to take account of the proposed restriction;
- have an adverse impact on the community cohesion and security of the local environment by creating separate residential areas;
- have an unacceptable adverse impact on the safety or perception of safety adjacent to and in the vicinity of the development;
- prevent the type of anti-social behaviour crime evidenced by the applicant; and
- prevent unauthorised entry into the development.

9.15 In all cases we will consider time limiting permissions for gating, thereby allowing flexibility should any incidents of crime and anti-social behaviour decrease.

9.16 Rather than gating we wish to see developments enhance community safety by maximising accessibility through encouraging the usage of routes to, from and through development. Good design, lighting, the use of CCTV where appropriate and public accessibility can reduce the opportunity for crime and anti-social behaviour.

Licensed premises and alcohol related violence

9.17 Licensed premises, because of their nature can be the location of alcohol related violence. This can be limited by good design, employing open layouts and maximising natural surveillance where possible. Where an application is received for alterations to new or existing licensed premises, we will seek to:

- maximise visibility into the premises by ensuring, where possible, clear glass is used on all street elevations; and
- reduce the number of entry points to a minimum.

Recesses

Recesses
Set-backs in the line of building frontages.

9.18 Recesses, including recessed doorways, can provide the opportunity for anti-social behaviour and can have an impact on crime and the perception of crime.

9.19 In consultation with our Building Control Service and the Fire Authority, opportunities can be taken to reduce the number of emergency exit doors within recesses or minimise their impact. Bringing the doors forward should be investigated when schemes are being designed, by:

- allowing the doors to open inwards, where there are 60 users or less of emergency exit doors and it is not a licensed premises;
- allowing the door to continue to open outwards if there is a private forecourt which it can open onto. Measures must be put in place to divert pedestrians away from the opening arc of the doors; and
- allowing for the outward opening of the door where there are 60 or more users and the footway is very wide.

9.20 Where bringing the doors forward is deemed unacceptable, it should be ensured that:

- the recess is no deeper than 600mm or no greater than required for the opening of the door within the recess;
- the edges of the recess are angled to improve visibility;
- transparent elements are incorporated into the door;
- the recess is widened so that it does not create hidden spaces; and
- where appropriate and if the building is unoccupied for periods of time, open-weave grille shutters or collapsible gates are installed, to be opened when the building is occupied.

9.21 In all circumstances, overlooking of the recess should be maximised where possible by considering replacing the emergency exit door with an all glazed or top half glazed door with thick laminated glass. An open weave grille can be installed internally for additional security. Further guidance is contained within chapter 7 Shopfronts, in this guidance.

Walls and fences

9.22 Careful consideration should be given to walls and fences, or other boundary treatments. If boundary walls are used in certain locations, where anti-social behaviour is identified as a problem, they should not have a flat horizontal top, which is inviting to sit on. Angled tops could be used to avoid the wall being used as an informal seat. Further guidance is contained within chapter 6 Landscape design and trees, in this guidance.

Public realm and street furniture

Street furniture

A collective term for objects and pieces of equipment installed on streets and roads, including benches, bollards, post boxes, phone boxes, streetlamps, traffic lights, traffic signs, bus stops etc

9.23 Well designed street furniture and public art in streets and public places can contribute to a safe and distinctive urban environment. Street furniture should not obstruct pedestrian views or movement or be positioned to encourage anti social behaviour.

9.24 All features within public space and elements of street furniture should be designed to make a positive contribution to community safety and discourage anti-social behaviour. Careful consideration should therefore be given to their location and detailed design.

Cash machine boxes

9.25 Cash Machine boxes are stand-alone structures located on the footway, which house Automatic Teller Machines (ATMs). We will refuse the siting of these in areas of high crime. Permission will only be granted where the police designing out crime advisors believe that it would not act encourage crime or interrupt important sightlines. Where they are allowed, the design should ensure maximum visibility into and through the proposed structure. Please see chapter 7 Shopfronts, in this guidance for further information.

Telephone boxes

9.26 Although we have only limited and discretionary control over the siting and appearance of public call boxes, we are consulted on the siting of new telephone boxes on the public highway. In all cases we will request that the provider demonstrates the need for the siting of the new facility. In certain areas of the Borough, public call boxes can be seen as crime generators and in these areas we will consider whether the proposed location will have an impact on crime levels.

9.27 All new phone boxes should have a limited impact on the sightlines of the footway. The size of the box or other supporting structure that the phone box is in should be minimised to limit its impact on the streetscene and to decrease the opportunities for crime and anti-social behaviour. There should be a minimum footway width of 2m adjacent to the phone box. Designs which are dominated by advertising space are not acceptable. Any advertising should not be placed where it significantly reduces natural surveillance or CCTV coverage of, or into, the call box. Designs should seek to maximise views into and through the phone box and along the footway.

Lighting

9.28 Good lighting can have a number of benefits, including:

- enhancing the built environment by increasing the potential for natural surveillance;
- reducing the opportunity for criminal activity to take place;
- where crime does occur, increasing the likelihood of it being challenged and/or reported; and
- ensuring that CCTV footage is of sufficient quality to assist in the detection of crime.

9.29 Where used inappropriately, however, it can result in light pollution which is intrusive and can have an impact on residential amenity. It can also result in pooling of light which means that pedestrians walk from areas well lit to those with little light. This impacts on their perceptions of their own safety and can influence the way in which they use their environment.

9.30 We will seek to encourage good quality lighting provision in all developments to use metal halide lamps or the equivalent and high quality refractors where appropriate to maximise the perception of colour and increase the controllability of where light falls. This will encourage uniformity of light provision. Uniformity of light is very important in people's perception of how well an environment is lit and has a greater impact than absolute lighting levels. It is also necessary for people with sight impairments, whose eyes adjust to different light levels more slowly than fully sighted people. Lighting should be designed so as to minimise glare and reflection problems.

Metal halide lamp

A type of light source used in a variety of applications which produces a large amount of quality light without being a huge, bulky light bulb.

9.31 Where lighting is provided to increase on-site security, this should not have an adverse effect on the perception of lighting levels in areas adjacent to the site and where possible should enhance this provision.

9.32 Mounting of lighting should be considered to ensure that it is resistant to vandalism and does not act as a climbing aid.

Landscaping

9.33 Where landscaping is created it can be important to consider sightlines as the landscaping matures. There may be a requirement for a maintenance agreement to ensure that planting as it matures does not impact on sightlines or CCTV coverage.

Maintenance

9.34 How an area is maintained can have a major impact on people's perceptions of crime and anti-social behaviour. Where a development creates public space we may seek to agree a management and maintenance plan with the applicant.

Car parks

9.35 Applications for car parks should demonstrate that they are well lit and secured in order to discourage anti-social behaviour. Underground car parks in particular should be securely designed and access limited to users.

Anti-terrorism

9.36 Terrorism can pose a very real threat in some areas of the borough. It is beyond the scope of this document to deal with these threats in detail but we will work with counter terrorism security advisors (CTSAs) on a case by case basis. Where appropriate the principles of the Government guidance, Crowded Places: The Planning System and Counter-Terrorism should be applied.

Conservation Areas and Listed Buildings

9.37 Incorporating designing out crime features into a development should complement other key design considerations such as the character and appearance of conservation areas and listed buildings. Measures for designing our crime will require careful consideration in these often more sensitive settings and some may not be considered appropriate within conservation areas or within the setting of a listed building. In these cases imagination should be used to come to a sensitive alternative solution.

Design and access statements

9.38 In situations where crime and anti-social behaviour is a concern, applicants should demonstrate within Design and Access Statements their understanding of the local issues relating to crime, and how the design will address them. In these situations, Design and Access statements should outline:

- Current levels of crime and anti-social behaviour in the immediate area;
- Activity levels in the streets and public spaces at all times of the day and night;

- The extent of natural surveillance of neighbouring properties, streets and public spaces; and
- Any other relevant local characteristics.

Further information

9.39 For further guidance on designing against crime:

- Safer Places: The Planning System and Crime Prevention, ODPM, 2004.

10 Waste and Recycling Storage

KEY MESSAGES

Planning for waste recycling and storage should ensure that developments accommodate:

- adequate space (designed) for the storage of waste and recyclables;
- safe location - accessible for all users and collectors and minimise nuisance to occupiers and neighbours (and their amenity space) e.g. noise, obstruction, odours, pests, etc;
- refuse collection for any waste contractor (and allow for reasonable changes to collection services in the future);
- containers should have designated storage areas; and
- sensitively designed/located, especially in conservation areas/or listed buildings.

10.1 This section seeks to ensure that appropriate storage for waste and recyclables is provided in all developments in Camden. Its key aim is to ensure that assists those involved in the design and management of buildings to best provide for the storage of waste and maximise the amount that can be sent for recycling.

10.2 This guidance relates to Core Strategy Policy – CS18 - Dealing with our waste and encouraging recycling and Development Plan Policies - DP26 – Managing the impact of development on occupiers and neighbours and DP22 – promoting sustainable design and construction.

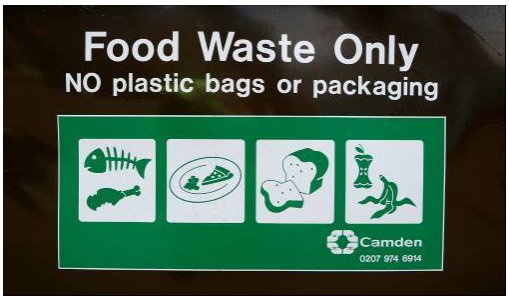
10.3 The preceding section provides detailed guidance on the space requirements for both internal and external storage features – these are set out in two parts:

Residential developments – internal/external features

- 6 dwellings or fewer
- 7 dwellings or more

Non-residential and commercial development

- internal/external features



10.4 A summary table (Figure 13) for the locational requirements is provided as well details of additional considerations depending on the type of development.

10.5 This guidance applies to:

- all new build development;
- development that significantly increases amount of floor space and on-site waste; and
- other activities that significantly increases the amount of waste generated on-site.

10.6 This guidance does not cover construction and demolition waste, or hazardous waste. For further information on these topics please refer to CPG4 Sustainability, particularly the chapter Sustainable use of Materials and Hazardous substances and Construction Management Plans.

Guidance on standards for waste storage

10.7 This section provides detailed guidance on the requirements for both internal and external waste and recycling facilities to ensure designs allow sufficient space for the storage of waste and recyclable material in developments. To encourage occupants to recycle waste, internal storage areas should be designed into each unit of a new development. This will enable occupants to segregate their waste into refuse and recyclables, and store it temporarily, until it can be transferred to external bins.

Residential development of 6 dwellings or fewer

Space requirements

10.8 Residential development of 6 dwellings or fewer are usually serviced by a kerbside waste and recyclables collection. The designs for waste and recycling facilities need to ensure that:

- internal and external storage areas are designed into each unit;
- internal space is provided for recycling storage, i.e. kitchens and utility rooms are generally the most appropriate locations;
- storage for both mixed recyclables, organic kitchen waste and non-recyclable waste.
- recycling waste storage comprises either a box or bag which are normally stored inside and taken to the kerbside on collection days;
- organic waste (food) kitchen caddies are stored inside the property and emptied into larger external, free-standing organic waste receptacles;
- external space for the storage of garden waste i.e. in large hessian sacks; and
- external storage for both waste and recyclables outside the buildings within the curtilage (for waste collector).

Dwellings above shops

10.9 Dwellings above shops can only be provided with green recycling bags due to restricted access to them. Therefore, there must be sufficient letterbox space to post these bags through the letterbox to avoid recycling/waste bags being left on the pavement after collection. The Designs need to make adequate space for storage, outlined in Figure Figure 13.

Figure 13. Waste Storage Requirements for new developments

Internal storage	External storage
Mixed recyclables are collected in either: • green bags/inserts (30 litre bin - W320 x H453 x D265) or from • green boxes (55 litre box - W445 x H375 x D585) These must be provided in the same location as the bin for the non-recyclable waste; and or organic kitchen waste: • 7 litre (W252 x H252 x D229) kitchen caddy	• Adequate space for 27 litre external organic kitchen waste receptacle (W320 x D400 x H405)

Residential development of 7 dwellings or more

10.10 Collection services for developments with 7 or more residential dwellings vary depending on the individual circumstances of the premises. The design of the building and space requirements will be determined on a case-by-case basis by the Council's Street Environment Service - and need to be consulted prior to lodging an application. For this type of development a kerbside collection is preferred, where possible. For external storage requirements, the guidance for Residential development of 6 or fewer units (see Figure 16) should be used.

Space requirements

10.11 Internal storage:

Developments this size needs to ensure that Internal storage, i.e.:

- be located in an accessible and communal area inside each dwelling;
- the location should also be easily accessible from external storage areas, near to areas of high waste production, and hard wearing and washable - kitchens and utility rooms are generally the most appropriate; and
- recyclables must be able to be separated at the source, and dwellings should be provided with capacity for receptacles for each recyclable component (including food waste), according to the separation at the relevant "bring" facility e.g. glass (3 banks as colour separated at

source – clear, green, brown), cans, plastic bottles, paper (single banks for mixed collections), etc, and for non-recyclable waste.

10.12 Space considerations:

- provide for both mixed recyclables, organic kitchen waste and non-recyclable waste; and
- storage for recycling must have at least twice, if not three times, the capacity of storage for non-recyclable waste to account for the separation requirements and the frequency of removal from the dwelling.

10.13 External storage - by rooms per dwelling:

- Must be provided to allow for recyclables and waste that is expected to be produced by the size of development. For external storage requirements, Figure 16 should be used.

Figure 14. Amount of internal storage space required by the number of rooms in dwelling

Number of habitable rooms in dwelling	Capacity of external storage space required for that dwelling (for weekly collection)
1	0.15 m^3
2	0.20 m^3
3	0.25 m^3
4	0.30 m^3
5	0.35 m^3
6	0.40 m^3

NB: The figures include both recyclable and non-recyclable waste

External Bins for waste and recycling storage:

10.14 Bins for waste and recycling storage vary in size and an appropriate combination must be provided to accommodate the needs of the development.

10.15 The following is a summary of the bins currently used in waste and recyclables storage to provide a guide to the space requirements.

10.16 Normally, recycling bins are provided in one of the following combinations:

- 5 x 1280L Eurobin (separated recyclables);
- 5 x 360L Wheelie Bin (separated recyclables);
- 1 or 2 x 1280L Eurobin (mixed recyclables).

10.17 Consultation must be undertaken with Camden Street Environment Services to confirm the bin requirements and standards:

Figure 15. Storage containers and dimensions

Bin Type	Use	External Dimensions mm H x L x D (H + open lid)
360L Wheelie Bin	Recyclables	1100 x 650 x 880
240L Wheelie Bin	Food Waste	1070 x 580 x 740
500L Eurobin	Food Waste	1145 x 1305 x 745
Wheelie bin housing (Broxap)	Food Waste	1290 x 650 x 750
660L Eurobin	Non-recyclable waste	1310 x 1260 x 730 (2040)
1100L Eurobin	Recyclables or non-recyclable waste	1370 x 1260 x 990
1280L Eurobin	Recyclables or non-recyclable waste	(2360)
Paladin	Non-recyclable waste	1610 x 900 diameter
940L Box Paladin	Non-recyclable waste	1500 x 1020 x 975

(NB: This list, including the bin dimensions, is subject to change. It is only to be used for preliminary design purposes)

Non-residential and commercial buildings

10.18 The volume of waste generated and thus the number and type of containers that a commercial development requires is ultimately dependent on the use of the building. Where an extension or change of use to an existing property is proposed, this may result in the removal of existing container storage areas, typically, to the rear of a property. This may be acceptable provided that an alternative storage area is designated as part of the proposed development, in line with this guidance. For external storage requirements, Figure 16 should be used.

Space requirements

- Internal collection and storage points should always be considered for all types of waste to maximise the amount of recyclable material.
- External storage must be provided in most cases. As a guide, approximately one cubic metre storage space is required for every 300-500sq m of commercial space (includes both recyclable and non-recyclable waste). Storage space must be designed to accommodate bins to hold this amount of waste, separated, and should be designed in consultation with the waste collection contractor.
- Even if a recyclables collection program is not proposed, space must be allocated to locate bins for storage of likely recyclable waste. For example, in any office development, space should be allocated for storage of recycling bins for waste paper.

- Waste and recyclables from residential and commercial components of a development must be stored separately, but they should be stored using the same container type to facilitate ease of collection.
- For summary of external waste storage requirements (see Figure 16)

RESTAURANTS AND FOOD WASTE

Special consideration must be given to the location and nature of external storage areas. The volume of waste generated is generally high and has a high biodegradable content, therefore can potentially cause nuisance from odour, visual blight, and through attraction of vermin and scavengers. Storage of such waste should be in solid receptacles which ameliorate negative environmental impacts

From the 1st January 2006 developments that generate food waste will have to comply with the requirements of the Animal By-Products Regulations 2005. The Regulations place controls on the collection, handling, transport, storage and disposal of animal by-products, which includes catering waste. This may have implications for the design of the building and the waste containers required. Further information on The Animal By-Products Regulations 2005 should be sought from DEFRA – www.defra.gov.uk/animalh/by-prods/default.htm

Location Requirements

10.19 The table below summarises the key external storage requirements. In particular, the first six features apply to all developments regardless of size and type of units.

Figure 16. External storage requirements

	External storage area features:	**Less than 6 residential units**	**7 or more residential units**	**Non-residential (commercial) Development**
1	Should not be located near ground storey windows. They should be located within 10 metres of an external access.	✓	✓	✓
2	External storage areas and collection points must be as close as possible to, and preferably within 10 metres of, a place suitable for a collection vehicle to stop.	✓	✓	✓
3	Storage facilities must be at or near street level, and should be accessible via appropriately sized and graded ramps to allow bins to be wheeled to and from the collection point easily.	✓	✓	✓
4	Must be safe for users by being well lit and visible from public vantage points and nearby dwellings / tenancies.	✓	✓	✓
5	Should be unroofed, unless they are fully enclosed and secured (ideally inaccessible to animals).	✓	✓	✓
6	Should be accessible for collection purposes and not impede pedestrian or vehicular access on public thoroughfares or to and from buildings.	✓	✓	✓
7	Should be located as close to the front property boundary as possible, preferably behind the front boundary wall, without detracting from the street scene.		✓	
8	Consideration should be given to the • allocation of additional external storage space in the future, e.g. additional bins, • composting facilities - in residential development with a garden or landscaping, • provision of onsite storage for bulky waste (i.e. furniture) items and potential opportunities for re-use of these items.		✓	
9	Should be in an enclosed chamber that can be accessed from outside the building.			✓
10	Large developments in areas that are deficient in recycling banks (“bring”) facilities will be expected to incorporate these facilities onsite for use by the general public - must be located in secure and easily accessible communal areas,		✓	✓

Additional Requirements

10.20 Applicants must provide details of storage for waste and recyclables in a proposed development as part of their application. These should be shown on the plans or in the application documents, where possible, and will form part of the approval

10.21 For schemes that create 7 or more dwellings, or includes a non-residential component, the applicant must consult Camden Street Environment Services prior to making an application to determine the best means of storage and collection for the development. A statement describing the proposed waste storage and collection arrangements, as agreed with Street Environment Services, should be provided with the application.

10.22 For large proposals, or for proposals with complex waste separation or collection arrangements, a management plan might be required as a condition of approval.

10.23 Consideration should also be given to materials and finishes, and lighting of waste enclosures, to ensure that they are safe and secure, and do not present a fire hazard. These are dealt with in the Building Regulations.

10.24 Private contractors often collect commercial and other non-municipal waste. They may have different requirements for collection to those of the Council, and should be consulted prior to making an application, to ensure that their requirements can be accommodated.

Further information

Camden Street Environment Services	Applicants are advised to contact Camden Street Environment Services in the first instant prior to making an application to determine the appropriate means of storage and collection required for a proposal Address: Roy Shaw Centre 3-5 Cressy Road London NW3 2ND 020 7974 6914/5 www.camden.gov.uk/waste
Waste storage requirements	Waste Storage : A Guide for Developers of Commercial and Residential Premises in the London Borough of Camden, Camden Street Environment Services BS 5906 2005 Waste management in buildings – Code of practice, British Standards
Assistance with the identification of an appropriate company to deal with recyclable waste from the proposed development	Waste recycling www.wasterecycling.org.uk For free environmental guidance for small and medium-sized enterprises, see Environment Agency (NetRegs) www.environment-agency.gov.uk/netregs/default.aspx

11 Building services equipment

KEY MESSAGES

Building services equipment should:

- be incorporated into development;
- have a minimal impact on the environment; and
- Should not harm occupant or neighbour amenity.

11.1 Building services equipment, whether it is used for heating and cooling, communications, power, plumbing, ventilation, access or security, if not considered appropriately, can cause significant visual blight and nuisance for neighbours.

11.2 The purpose of this guidance is to ensure that necessary building services equipment can be incorporated into development, while having minimal impacts on their environment. Impacts that are likely to require minimisation or mitigation include visual blight, light nuisance, noise nuisance and vibration, odour, and other environmental pollutants or nuisance.

11.3 This guidance relates to Camden Development Policy DP24 Securing high quality design, DP26 Managing the impact of development on occupiers and neighbours and DP28 Noise and vibration.

11.4 This guidance does not specifically apply to renewable energy installations, or telecommunications as they are considered in other guidance but principles may be the same. For further information see CPG3 Sustainability (Energy efficiency: existing buildings, Energy efficiency: new buildings and Renewable energy chapters) and PPG8: Telecommunications.

How should building services equipment be treated?

Design considerations

11.5 In new development, all building services equipment:

- must be integrated within the building or development structure;
- must be incorporated into the external building design where, because of its nature, it cannot be integrated within the building; and
- should not be a dominant feature of the building.

11.6 In refurbished development, plant and machinery should be accommodated within the building structure, or incorporated into the design of external modifications.

11.7 Other design considerations for building services equipment include:

- screening or other techniques to minimise the impacts of plant, machinery and ducting must, in themselves, not cause visual blight;

- plant and machinery on roofs should not be visible from the street, public vantage points or from immediately adjacent buildings;
- the design and materials used for plant, machinery and ducting, as well as for ancillary structures such as screening, where located on the exterior of the building, must be consistent with those of the building; and
- where possible, plant and machinery should be designed in such a way that does not lead to issues of safety and security.

Amenity

11.8 Where ducting, plant or machinery are required on the outside of a building they must not obscure access to daylight and sunlight, or provide any nuisance for occupants of the development or adjacent buildings.

11.9 Plant and machinery with moving parts must be separated or insulated from occupants and neighbours who are likely to sensitive to noise disturbance. Techniques to achieve this separation include the use of flexible ducting, or resilient mountings for structure-borne plant and machinery.

11.10 Where mechanical or passive ventilation is required to remove odour emissions, the release point for odours must be located above the roofline of the building and, where possible, adjacent buildings.

Sustainability

11.11 Plant and machinery, particularly where located on roofs, must not preclude the installation of required onsite renewable energy facilities in the proposal. Consideration must also be given to the possibility of future renewable energy installations.

Conservation areas and listed buildings

11.12 Special consideration should be given to the installation of plant, machinery and ducting on listed buildings and in conservation areas. Fewer external solutions are likely to be appropriate in these locations. Installations must be in keeping with the design and materials of the building. Listed building consent is likely to be required for works to a listed building.

Other considerations

- Access to plant and machinery must be provided to allow for convenient and safe servicing and replacement of installations;
- Machinery must be properly installed and maintained to ensure that impacts are properly mitigated and the situation does not deteriorate over time with continued operation.
- Plant and machinery should be located as close as possible to their end use, e.g. boilers should be located near to the hot water or

heating users, to minimise use of ducting materials, loss of resource and visual blight.

- Disused plant, machinery and ducting must be removed from the exterior of buildings before replacements can be installed. Only in exceptional circumstances will these be allowed to remain.