

STREET LIGHTING

Policy Document

(4th edition)



FOREWORD



I am pleased to introduce the County Council's Fourth Edition of its Street Lighting Policy document, following a comprehensive review in 2009. The original document, published in 1994, was one of the first produced by a local authority and was hailed by the Institute of Lighting Engineers as setting the standard for other authorities to achieve.

This document strikes a balance between the aim to reduce the effect of artificial light intrusion on the night-time environment and the need to provide the necessary illumination to enhance the safety of highway users. It also seeks to lead the way in the recycling of waste derived from its maintenance operations.

Evolving technologies are providing the County Council with many different opportunities in the manner in which the streets and footways of Hampshire can be lit. This revised Street Lighting Policy provides the focus and leadership required to enable the County Council to meet its Corporate Aims as well as continuing to provide a safe and pleasant environment for the residents of Hampshire and all members of the travelling public who utilise the County's road network.

A handwritten signature in black ink that reads "Melville Kendal". The signature is written in a cursive, flowing style.

Councillor M Kendal

Executive Member for Environment

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INTRODUCTION

This policy outlines the basic principles and standards applying to street lighting and illuminated signage in Hampshire. The term “street lighting” encompasses lighting and all other items of illuminated street furniture provided on the public highway (whether or not adopted by Hampshire County Council), except traffic signals and electrically operated vehicle information signs.

Detailed information on street lighting and signage requirements can be found in this Policies supporting documents:

- HCC Street Lighting Design Guide
- HCC Street Lighting Material and Works Specification
- HCC Standard Detail Drawings (Series L)
- Manual for Streets



1. OVERVIEW

British Standard for the Lighting of Highways

To achieve a structured and coherent approach to the provision of lighting on the public highway the correct levels and associated parameters for the lighting for each specific class of road, street, footpath, cycle track etc. must be determined. Such determination should take account of: -

- the use of the road, for vehicular, cycle and pedestrian traffic,
- local amenities such as leisure centres, schools, churches, village halls, shops, public houses, doctors surgeries etc. which may affect the night-time use of the road
- The location of the road, rural, urban etc.
- the environmental aspects

Each category of road, street, footpath, cycle track etc. will have its own specific requirements, which will affect the level of lighting to be provided. The current British Standards for Road Lighting are, BS 5489 2003 and BS EN 13201 2003.

BS 5489 contains guidance and recommendations that are intended to support BS EN 13201 and to enable designers of lighting systems to comply with that standard.

BS 5489 consists of two parts:

- BS 5489-1 Gives guidance and recommendations for the lighting of roads and public amenity areas
- BS 5489-2 gives guidance and recommendations for the lighting of tunnels.

BS EN 13201 consists of three parts:

- BS EN 13201 part 2 – Details performance requirements
- BS EN 13201 Part 3 – Details calculation of performance
- BS EN 13201 Part 4 – Details methods of measuring light performance

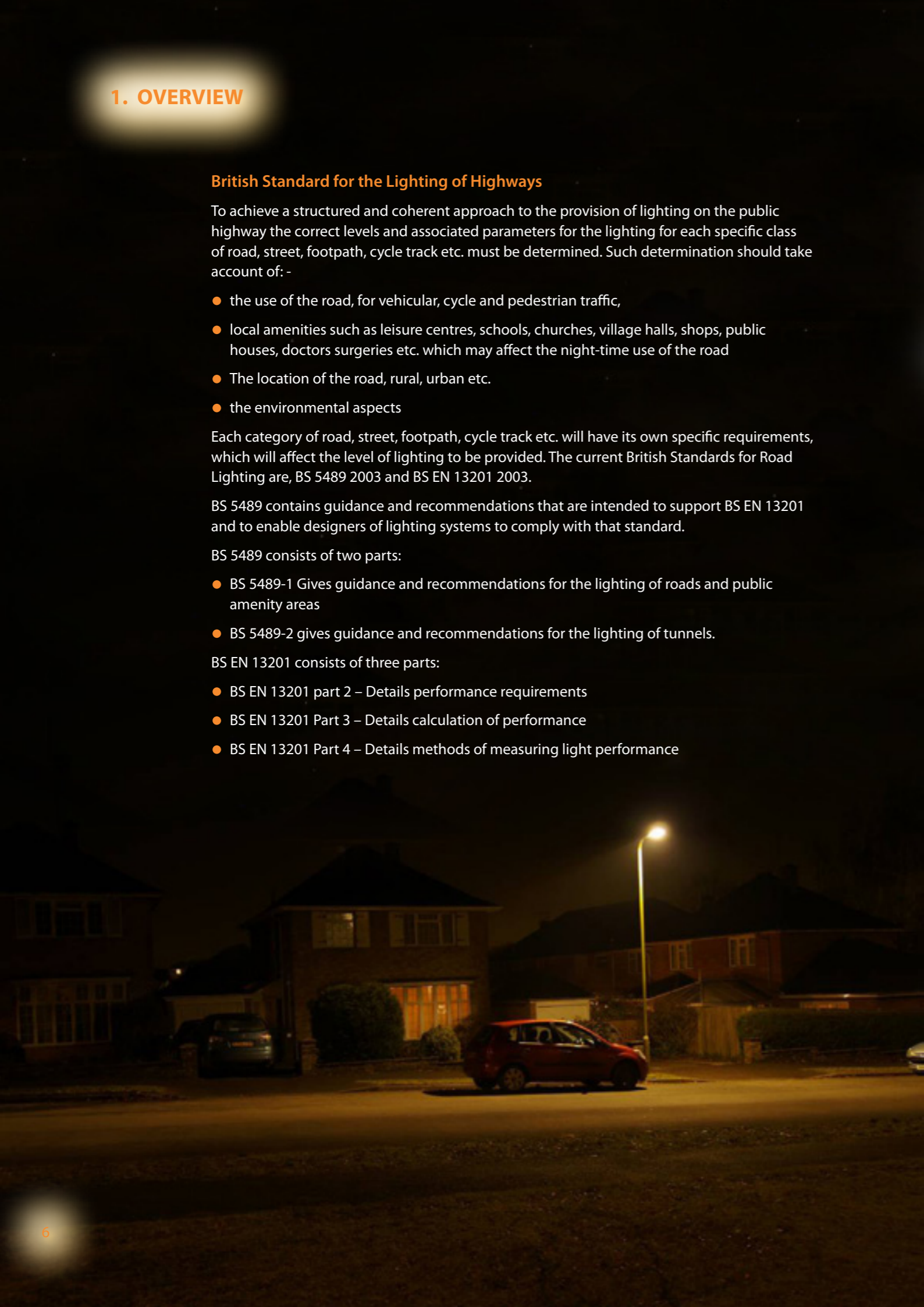
2. MAIN OBJECTIVES

The provision of street lighting and other items of illuminated street furniture should support the three key aims of the County Council's Corporate Strategy:

- Maximising Wellbeing
- Hampshire Safer and More Secure for All and
- Enhancing Our Quality of Place

In addition the following key issues should be taken into account when considering lighting issues:

- Highway safety for road users
- Protection of the night-time environment
- Enhancement of the night -time environment
- Personal security
- Lighting for closed circuit television (CCTV)
- Crime against property including car crime
- Reduction of vandalism
- Increased feel good factor,
- Perception of safety.



- **Visual/environmental intrusion.**
 - Daytime appearance, improved appearance of equipment
 - Night-time appearance, better optical control
 - Minimising obtrusive light, upward and intrusive light
 - Limiting lighting in rural areas.
- **Cost effectiveness.**
 - Energy efficiency
 - Reliability and maintenance of equipment
 - Whole-life costs
 - Coordinated street scene approach
- **Electrical, Structural and other Safety Issues**
- **Location and accessibility of equipment**
- **Structural and electrical testing**
- **Specification of equipment**
- **Recycling and Disposal of redundant equipment including lamps**
- **Passive safety**
- **Use of innovative and maturing technology such as**
 - Variable lighting levels with electronic gear
 - Remote monitoring systems
 - Light emitting diodes (LED's)
- **Carbon free energy supply**
- **Reduction of primary energy consumption and increasing the share of renewable energies**
- **Sustainable procurement**



3. LIGHTING PROVISION

The following principles apply to the provision and maintenance of street lighting:

- The promotion and maintenance of safety for all users of the highway with special consideration to all vulnerable user groups, e.g. pedestrians, cyclists, the elderly or people with disabilities and children, the principal aim of which is to reduce night-time accidents.
- The enhancement of the night-time environment with special reference to lighting in historic areas.
- The promotion of Crime and Disorder issues together with increasing personal security, reducing the fear of night-time attack on individuals and to deter vandalism of property.
- The avoidance of detrimental environmental impact in terms of the visual appearance of lighting, both day and night, adjacent to and on the highway and the overall impact on the environment in terms of energy conservation and light pollution.
- The provision of cost-effective lighting systems which are energy efficient, incorporate whole-life costs, Local Agenda 21 issues via sustainable development, and recycling initiatives, whilst promoting the purchase of energy derived from renewable resources.
- The need for consultation with locally elected bodies and District Councils specifically as regards conservation issues.

4. WHERE SHOULD LIGHTING BE PROVIDED

4.1 Zone E1 - National Parks, Areas of Outstanding Natural Beauty, Sites of Special Scientific Importance and other Dark Areas

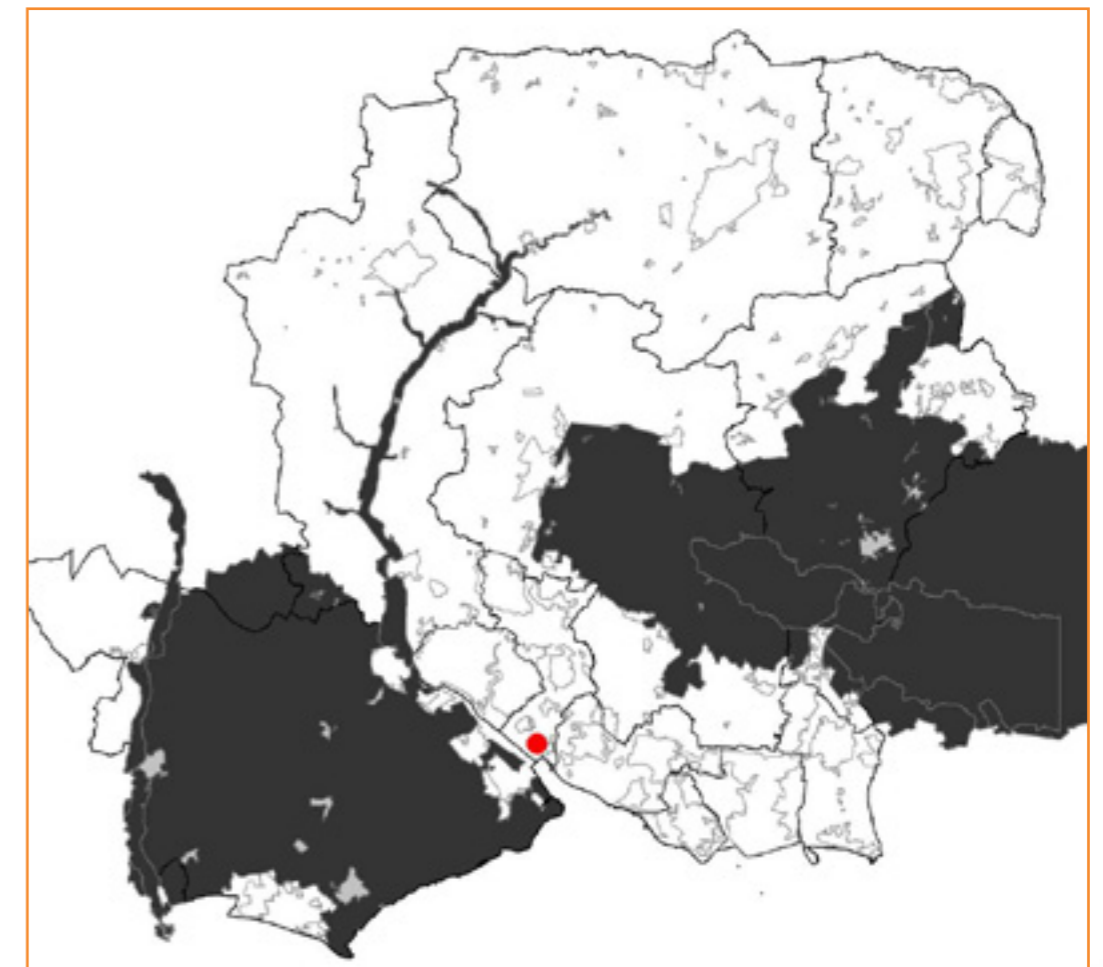
Roads in National Parks are defined as all roads within designated National Park boundaries but excludes those roads within designated urban areas. National Park boundaries are defined under the National Parks and Access to the Countryside Act 1949. Hampshire has two National Parks; the New Forest National Park and the South Downs National Park.

4.1.2 The general presumption is that street lighting should not be provided in Zone E1 areas unless the County Council, or the Local Lighting Authority, can demonstrate an overriding road safety issue which cannot be overcome by other means.

Road safety benefits may be assessed via the ratio of daytime accidents from the anticipated reduction in night time accidents by the installation of lighting. In addition, guidelines contained within the Hampshire County Council Safety Engineering Team's Technical Note 1 may also be considered. Although roundabouts, and other major junctions, are sites that often identify a need for lighting, assessments should still be made to confirm the justification, having regard to the above.

Where existing street lighting has been installed a safety audit shall be completed, followed by consultation with key local stakeholders. Where possible, such equipment shall either be deilluminated or removed.

Zone E1 Areas in Hampshire



4.2

Zone E2 - Areas of Low District Brightness (Rural Areas outside Zone E1)

Roads in rural areas are defined as those outside major towns but include villages and small towns within the County. As a rule these areas are more precisely defined as being those within "the Countryside Policy Area Boundary" for development purposes, as described in District and Local Plans. However, in assessing lighting requirements in small rural communities, the County Council will consider the requirements and suggestions of the Local Lighting Authority as to the need, and standard of, lighting. The County Council, as the Highway Lighting Authority, will need to agree any proposals but, where the agreed standard is less than the current British Standard for Road Lighting, then the Local Lighting Authority will be invited to take responsibility for the future maintenance.

The general presumption is that street lighting should not be provided in Zone E2 areas unless the County Council, or the Local Lighting Authority, deem it to be in the best interest of the local community from either a road safety or a personal security point of view.

Where proposals are promoted on the grounds of personal security of highway users, particularly pedestrians, the main factors, which should be assessed when considering provision of lighting are:

- The volume of pedestrian traffic during lighting-up times,
- The proportion of such traffic that falls into the categories considered as vulnerable groups, such as women, children, the elderly and people with disabilities.
- The potential risk of the site, such as high personal crime areas, particularly in secluded locations, and potentially dangerous locations due to the terrain, (i.e. falls) or other hazards.
- Areas where antisocial behaviour or repeated acts of vandalism occur.

In applying the above it should be noted that the powers of the County Council, as the Highway Authority, do not extend to the provision of lighting solely for the reasons of personal security against crime, although it is reasonable to take this into account when lighting is justified on other grounds or is to be provided by other bodies.

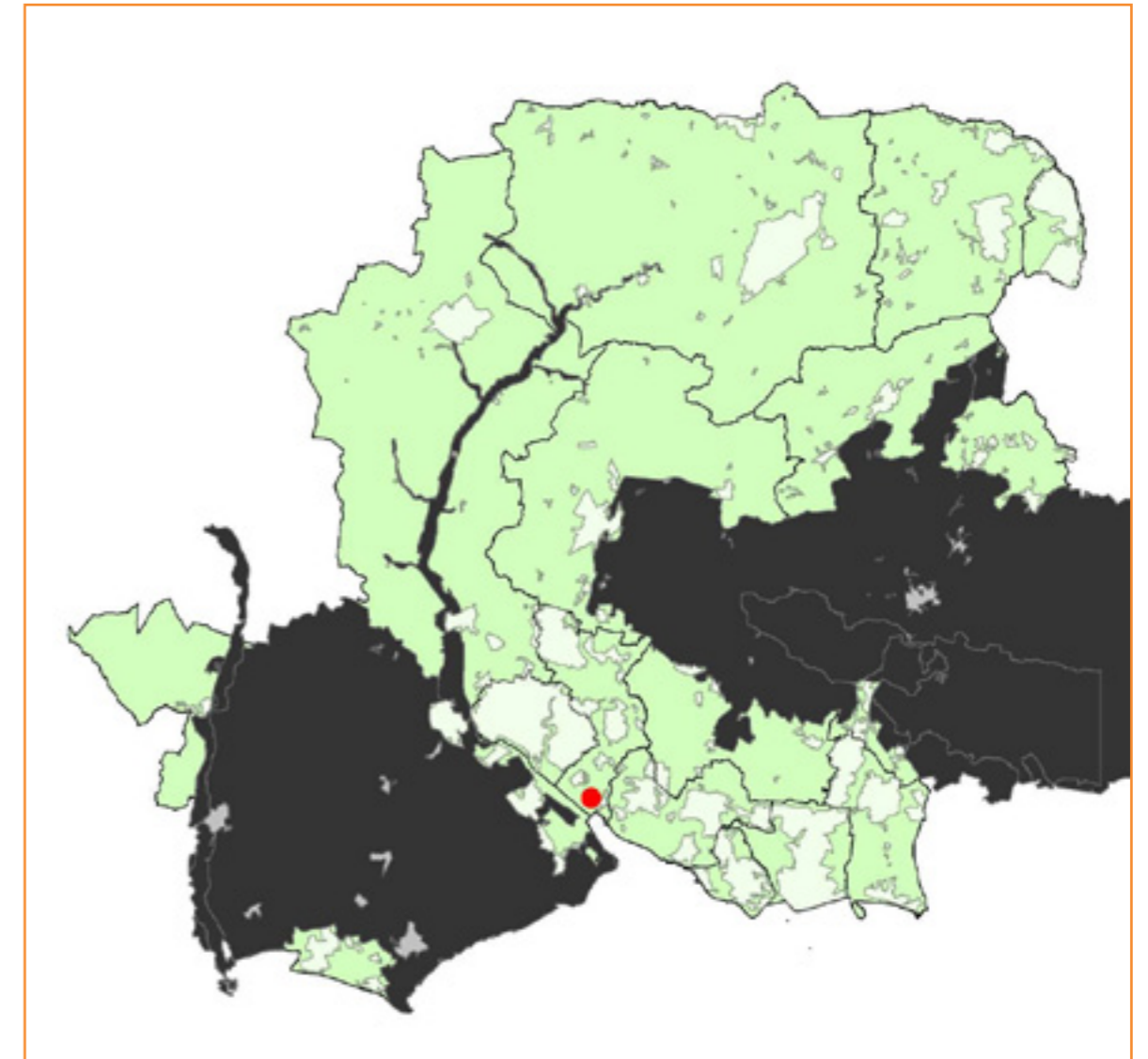
Where lighting is considered necessary, either on road safety or personal security grounds, then full consideration must be given to the environmental impact when designing any proposals. There are special areas in the countryside where environmental considerations will carry greater emphasis. These are defined by Local Planning Authorities under the following general headings:

- Special Protection Areas
- Special Areas of Conservation
- Environmentally Sensitive Areas
- Areas of Outstanding Natural Beauty
- Sites of Special Scientific Interest

There are also certain other sensitive Rural Areas where this approach should be adopted, e.g. large strategic gaps and parts of the urban fringe. Where a justification to light is identified, within such environmentally sensitive areas, installations designed to minimise day time and night time impact, with full horizontal cut-off and minimum lighting levels should be required.

In Rural Areas alternatives to lighting, such as improved carriageway delineation, use of reflective studs, reflective carriageway surfacing, signing and lining, should all be considered and an integral approach should be used to develop proposals which best balance safety, and environmental, considerations. Where illumination, especially of signs and bollards, is a requirement then consideration should be given to the use of solar powered equipment.

Zones E1 (Black) and E2 (Green)



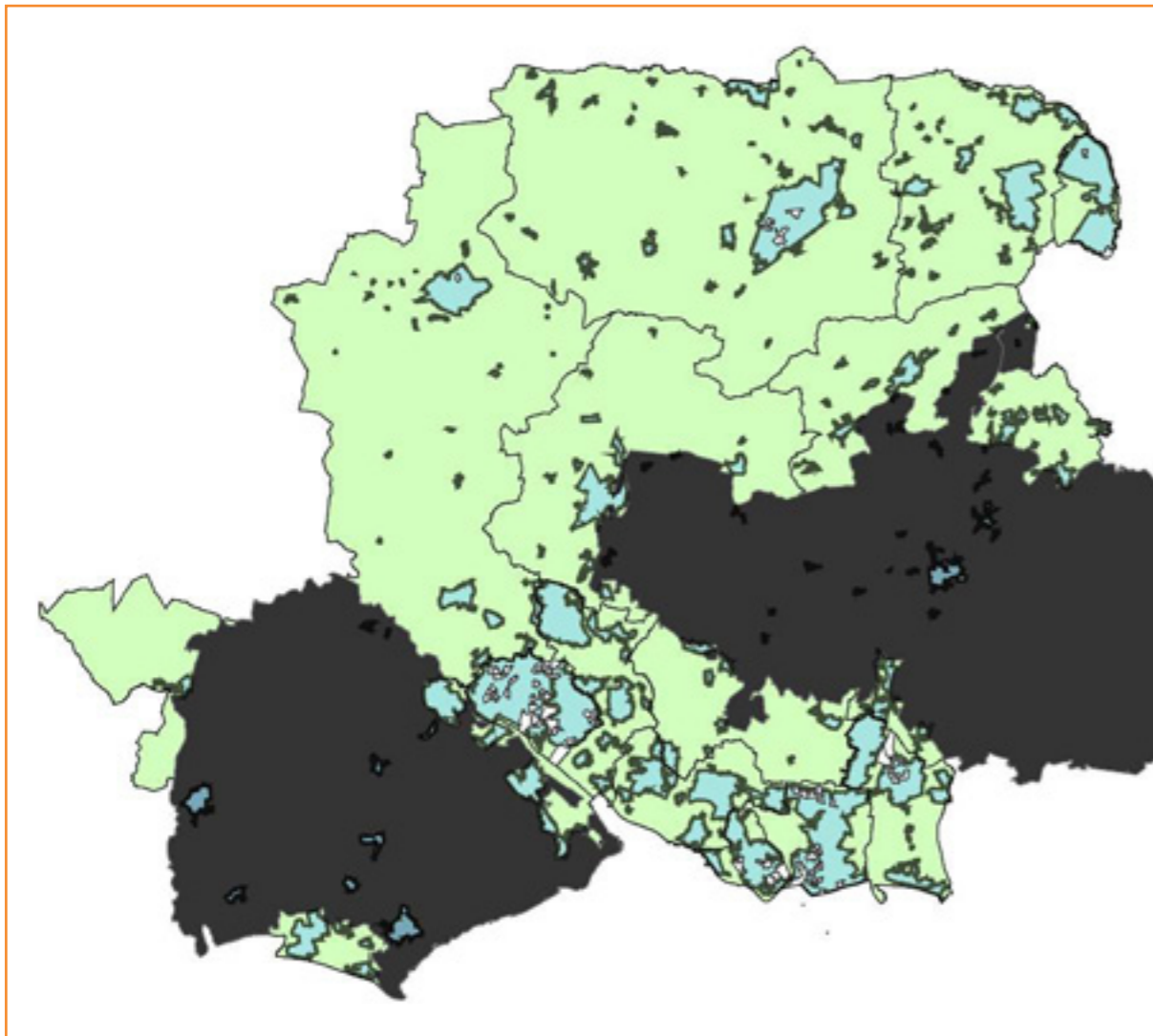
4.3 Zone E3 - Areas of Medium District Brightness (Low Crime Urban Locations)

Roads falling into this category include all urban residential local access roads and footpaths (as defined by "Well Lit Highways") where reported crimes, per 1000 households, are less than, or equal to, the County average.

As a general rule roads in Zone E3 areas shall be lit to the levels originally provided at the time of adoption. For the sake of clarity replacement columns shall be installed on a 1:4:1 basis with new columns being positioned at the rear of the footway and on property party lines wherever possible.

Detailed information on road classification and lighting levels can be found in the Street Lighting Design Guide.

Zones E1 (black), E2 (green) and E3 (blue)



4.4 Zone E4 - Areas of High District Brightness (Major Traffic Routes, High Crime Urban Areas, and Town Centres)

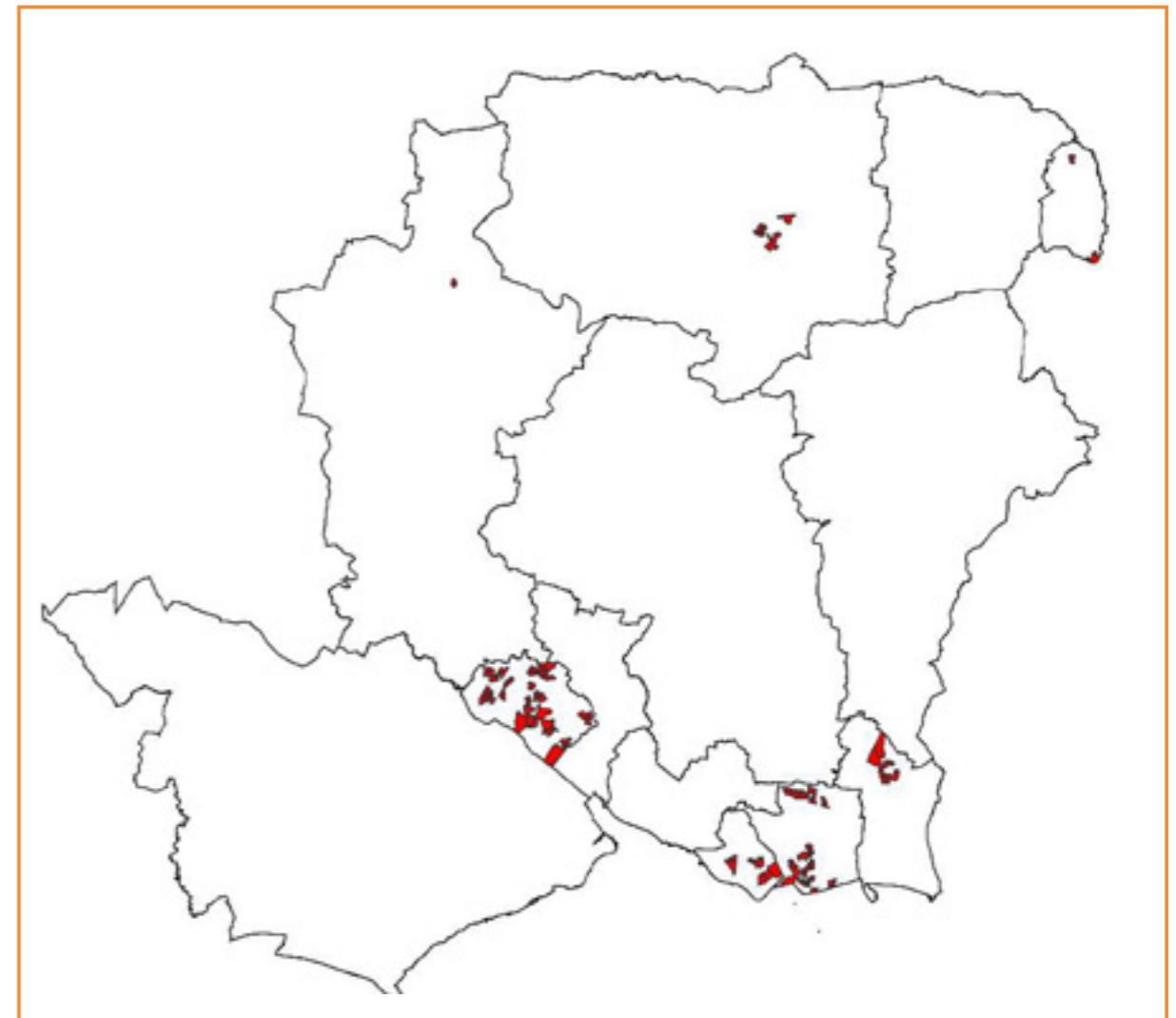
Major traffic routes are defined as all A, B and C class roads and contain all strategic routes, main/ secondary distributor and link roads as defined in "Well Lit Highways".

Generally all Zone E4 areas will be lit to the British Standard relevant at the time.

Urban Areas falling into this category include all urban residential local access roads and footpaths (as defined by "Well Lit Highways") where reported crimes, per 1000 households, are greater than the County average.

Town centre boundaries are as defined by Policy S1 of the County Structure Plan.

Zone E4 (red)



4.5 Sensitive Areas

For the purposes of this policy Sensitive Areas are defined as:

- Statutory Conservation Areas, Scheduled Ancient Monuments, Listed Buildings and their settings.
- Non-statutory historic or heritage areas and older urban regeneration areas, identified by the Local Planning Authority.

There are other County Council sponsored initiatives, such as the Regeneration of Older Urban Areas and Hampshire Country Towns Initiative programmes, which will be the subject of special treatment and funding. These will generally operate within the categories described above but some will have their own requirements.

Always provided that the assessed level of highway safety is achieved, the retention and enhancement of the architecture, historic or landscape character of the area will be taken into consideration when determining lighting requirements.

All areas have a unique character and it is important that lighting arrangements are tailored accordingly, rather than being “standardised” towards the enhancement of the area in respect of any works carried out.

All proposals and improvements will be the subject of a lighting design brief and, where these comply with the agreed brief, they will be adopted by the County Council as Highway Authority. Where the lighting design falls outside the design brief then the Local Lighting Authority must be prepared to accept ownership of the scheme once constructed.

Lighting improvements should form an integral part of all environmental enhancement schemes.

In order to identify opportunities and constraints specific to the site under consideration, a master plan or Design Brief shall be prepared by the Environment Department jointly in conjunction with the appropriate officers of the Local Planning Authority. This should comply with Quality Assurance Procedures and should also take into account the views of interested outside bodies (e.g. historic societies) to ensure that the appropriate environmental and lighting design solutions are achieved.

In view of the pressures upon financial resources, the costs of environmentally designed lighting schemes and future maintenance liabilities should be borne in mind.

The County Council will not rule out the adoption of lighting arrangements/schemes which represent an incremental step, or improvement towards the desired standard provided the full system is installed within two years of the first part of any scheme being commissioned. However, where the lighting provision is too far below the required level established in the Design Brief then the Local Lighting Authority shall accept the maintenance responsibilities. In this way, opportunities for modest improvements need not be missed and Local Lighting Authorities can be confident of maintenance support once the final part of the scheme has been completed.

4.5.1 Standards of Lighting

The overall lighting requirements for a specific area will be identified within the District Lighting Plan. This will then be expanded and refined to take account of an area's unique character and needs in terms of vehicular/ pedestrian activity, location of local amenities, etc by the Design Brief. However, generally the requirements of the BSEN will be expected to be met.

As a general rule, new or replacement lamps shall be a white light source although consideration to alternative light sources (particularly for the purposes of floodlighting) will be given where required.

There may be situations in popular locations used heavily at night where tourist/visitor needs would suggest a higher level of illumination. These are expected to be relatively few in number and will require special consideration and consultation.

In all historic areas the Director of Environment shall consult with local Conservation Officers to ensure that historical styling and/or location of equipment is appropriate for the area in question. For particularly sensitive locations it may be advisable to arrange for trial installations to demonstrate the effectiveness of the lighting and its impact on surrounding areas.

In determining levels of illumination, lighting positions and styles, the Design Brief will consider pedestrian and vehicular uses/needs in relation to the following:

- Areas of activity - theatres, shops, school entrances, bus stops, libraries, highways, paths, etc and areas of conflict (junctions, etc).
- Listed buildings and historic qualities of the area.
- Building heights.
- Street features - crossing points, sitting areas, tree planting, pinch-points, materials/ colours, etc.
- Existing lighting - positions, styles, heights, lux levels, lighting type, lighting from shops,



floodlights, etc. In assessing appropriate levels of illumination the existing and ambient lighting, eg from shops, floodlighting schemes, etc, may only be taken into account in special instances. The continued operation of ambient or privately owned lighting sources cannot be guaranteed for the life of the scheme.

- Ground form levels (important to people with disabilities), hazards, etc.
- Local knowledge, incidence of vandalism, accident black spots, etc.

The floodlighting of landmarks and historic buildings shall be discouraged but as a minimum, should seek to minimise pollution of the night sky.

The design and installation of special or temporary lighting shall comply with the relevant sections of the current national design standard.

4.5.2 Lighting Equipment

All lighting equipment shall complement and enhance the appearance of the area.

Conservation Area status does not establish a pre-requisite for period style lighting - good functional modern designs may be suitable. However, the particular character of an historic area may demand a non-standard approach or a blend of various lighting sources.

Every opportunity should be taken to extend the range of acceptable equipment available through discussions with suppliers.

The restoration of existing cast iron and ornamental columns or lanterns, which are of architectural merit, will be encouraged but the electrical safety requirements must be considered paramount when deciding whether to reuse units. The retention of existing columns/lanterns, where these are of local historical importance, is desirable particularly where they form a feature of the locality. The County Council (or its appointed contractor) will retain and store salvageable materials for future use when they are unable to reuse such antiques at the time.

4.5.3 Design of Lanterns

If "period style" lanterns are used, care should be taken to match historical periods, for which consultation with the Local Planning Authority is essential. However, it is also necessary to maintain a harmony of style, as far as possible, as different lantern types may produce a cluttered and unplanned effect.

Where a modern style of fitting is proposed this, together with its control gear, must be recessive in design and colour and be sited so as to be "invisible" as far as possible during the daytime. This is of particular importance in areas where buildings are of diverse historical and architectural character. Such fittings should be simple and of appropriate shape, colour and scale to the architectural setting.

There is a general presumption towards using, as far as possible, lanterns that minimise light pollution of the night sky.

4.5.4 Wall Mounted Lanterns

Wherever possible/appropriate lanterns should be affixed to buildings, particularly where footways are narrow and subject to very considerable pedestrian traffic. The associated work in achieving Wayleave Agreements and Listed Building Consents for such fittings must be taken into account, when programming schemes which include lighting improvements. Such work may require periods in excess of 12 months to achieve completion. The siting of fixings and all attendant equipment on buildings should be taken into account, as should the quality and elevation features of the individual buildings on which they are to be affixed.



4.5.5 Wall Brackets

Brackets can be of architectural interest in their own right. Restoration of such features is encouraged, where possible, in order to retain the individuality of the place. Where new fittings require brackets, then fixings must take into account the nature and stability of the building; more than two fixing points should be provided, especially for buildings with timber frame, lime mortar or soft brick construction.

Modern interpretations of historic brackets may be appropriate in order to satisfy the need for cable ducting and load bearing requirements. The colour, weight and proportion of the bracket must be complementary to the lantern. Galvanised steel, primed and painted, should be used for new brackets, or other approved materials used, eg cast iron.

4.5.6 Lighting Columns

Ornamental columns should be constructed from a single material but, where this is not possible, then the respective metals must be protected from each other to reduce cathodic action taking place.

The restoration of existing cast iron and ornamental columns which are of architectural merit is encouraged. Where modern equipment cannot be accommodated within such columns, then measures to supply a carefully sited, separate free-standing unit may be an acceptable alternative to the loss of such features, always provided that electrical isolation can be achieved. New lanterns for such existing columns must be appropriate to the period of the column. Decorative fittings which cannot be integrated into the primary lighting system may be retained by agreement with the Local Lighting Authority.

Ornamental columns must be constructed from compatible metals.

The mounting height must be appropriate to the scale of the setting in the street scene. As a general rule, fittings should be mounted so as to be seen in silhouette against the sky in urban locations. Heights may need to vary to blend in with the scale of the surrounding area. In urban areas, a 4 metre (13 foot) minimum height clearance over footways is normally required for the Highway Authority to adopt.

Where lighting columns have to be used they should be sited to avoid obstruction to the footway (particularly for people with disabilities). However, where this means that columns would be provided at the back of footways adjacent to buildings, every effort must be made to install wall mounted fittings in lieu of columns.

5. GENERAL REQUIREMENTS

5.1 Standards of Lighting

All new lighting should be provided, designed, and installed in accordance with Section 4 (above) and in accordance with this Policies supporting documents:

- HCC Street Lighting Design Guide
- HCC Street Lighting Material and Works Specification
- HCC Standard Detail Drawings (Series L)
- Manual for Streets

5.2 Local Lighting Authorities

A Local Lighting Authority is a District, Borough, Town, or Parish Councils who has adopted the powers of a Lighting Authority under the Public Health Act, 1875, or the Parish Councils Act, 1957.

These powers allow a Local Lighting Authority to provide, adopt, and maintain Footway lighting on both public and private highways. However, the Local Lighting Authority can only provide lighting on a public highway (one adopted by the Highway Authority for maintenance at the public expense) with the prior consent of the Highway Authority. In addition a Local Lighting Authority should plan for the future maintenance of their footway lighting.

The Local Government Act, 1966 made County Councils and London Boroughs, Highway Authorities in their own right with a duty to ensure the safety of the public highway. The Highway Authority was given responsibility for the provision and maintenance of Road Lighting on adopted highways or potentially adopted highways in its administrative area.

The Local Government Act, 1966 does not confer a duty on a Highway Authority to provide and maintain road lighting. However, a Highway Authority has a duty to ensure the safety

of the highway, which could include the provision of lighting where there is a demonstrable night-time accident problem.

Whilst a Highway Authority does not have a duty to provide lighting it has a duty of care to maintain its lighting stock in a safe condition and to ensure that the equipment is fit for purpose.

5.3 Obtrusive Lighting

Obtrusive light is light which falls outside the area to be illuminated which, because of its quantity, direction or colour causes annoyance, discomfort, distraction or reduces the ability to see. Obtrusive light is often referred to as Light Pollution, which can be defined as the adverse effect of artificial light.

Obtrusive light can be subdivided into three main categories:-

Skyglow - The artificial brightening of the sky caused by the scattering of artificial light by dust particles and water droplets in the atmosphere. Often seen as an orange glow above urban areas and commonly referred to as Light Pollution. A large percentage of Skyglow is caused by light emitted directly upwards or at high angles of elevation from poorly designed luminaires and to a lesser extent light reflected from surfaces.

Glare - An intense blinding light, usually seen against a dark background, which can result in reduced visual performance and visibility. Poorly designed, installed and maintained lighting can cause glare that can affect the vision of pedestrians, cyclists, and drivers, creating a hazard rather than increasing safety.

Light trespass - Light falling where it is not wanted or needed, light spilling beyond the boundary of the property on which the light is located. Poor exterior light that shines into neighbouring properties and bedroom windows, reducing privacy, hindering sleep and affecting the appearance of the area.

Considerations shall be given to the restriction of obtrusive light by:

- the control of the type of light source
- restricting the level of light emitted by the luminaire at high angles usually between 70 and 90 degrees.

The use of full horizontal cut off luminaires for mounting heights above 6m will have a substantial effect on restricting obtrusive light.

Similarly, the use of shallow bowl luminaires for mounting heights of 6m or less will help to reduce the overall level of obtrusive light produced by road lighting installations, but may add to the numbers of lighting units required.

Special consideration will be given to the effect of lighting on adjacent areas used by other means of transport such as:

- major airports
- railways
- harbours
- transport interchanges
- navigable waterways
- adjacent unlit traffic routes
- car parks

Careful consideration will be given to the design, installation, and maintenance of any lighting systems adjacent to a major transportation facility to reduce the risk of damaging the night sight of the transport operators or reducing the visibility of signalling equipment.

Astronomical observations can be particularly affected by obtrusive light from road lighting installations. Therefore consideration will be given to the level and type of lighting provided in close proximity to control the light output of the luminaire.

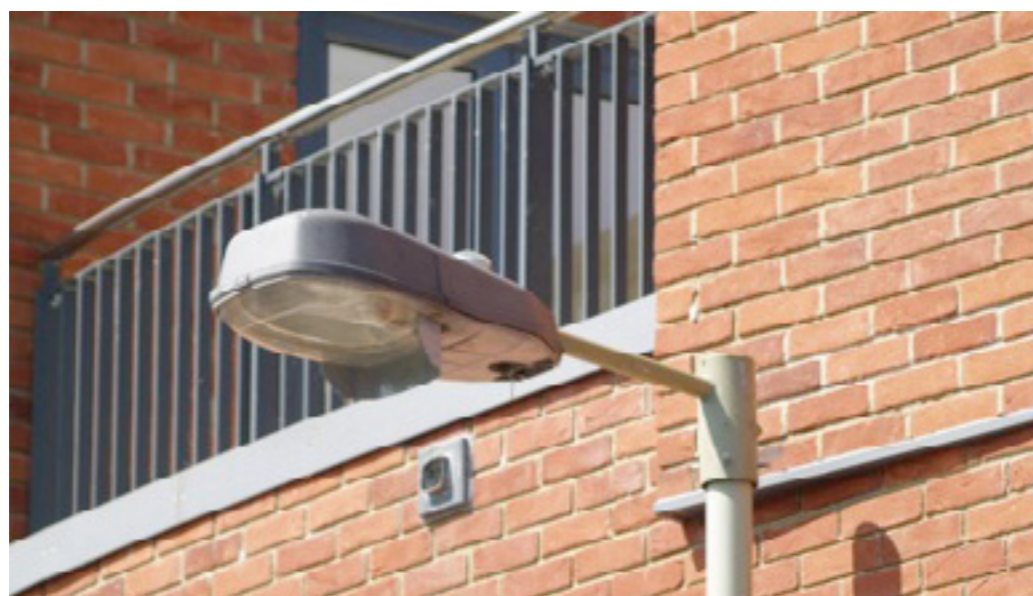
Consideration of these problems at the design stage can substantially reduce the effect of obtrusive light. However, the installation must be properly maintained to ensure that any special provisions are kept in full working order and correctly adjusted.

The use of uplighters, or similar equipment intended for decorative lighting installations, will be strongly discouraged unless a significant benefit to the local community can be demonstrated which outweighs environmental concerns.

Early consultation will be carried out with any astronomical groups that may practice in close proximity to the road to be lit and seek to achieve a design solution that is acceptable for both parties.

5.4 Lighting Shields

The majority of modern lanterns have optical controls designed to limit or negate intrusion into properties. However it is recognised that intrusion can still occur. Where this intrusion is the direct result of County Council maintenance or improvement works then, where possible, shielding will be provided free of charge.



However, in any cases where the day-to-day operations of the County Council are not the cause, and are e.g. due to a change of occupancy or room use, then the provision of such shields will be undertaken on a rechargeable basis.

Any such shielding should be of a bespoke nature designed by the luminaire manufacturer to fit the lantern in question. Where such shields are not available, and the column height is below 8m, then generic shielding, attached to the bracket, is permitted. Generic shielding at 8m or above is not permitted for health and safety reasons.

5.5 Department of Transport

Motorways and Trunk Roads are maintained by the Highways Agency. The Agencies policy with regards to the lighting of these roads is separate from that of the County Council. Enquiries regarding this policy should be directed to The Highways Agency, St Christopher House, Southwark Street, London SE1 0TE.

5.6 Lighting of Pedestrian Crossings



Pedestrian Crossings should be lit to meet the recommendations of the Institution of Lighting Professionals, Technical Report No.12 "Lighting of Pedestrian Crossings", or its successor, and, where applicable, the current British Standard for Road Lighting.

Details of acceptable materials can be found in this Policies supporting documents:

- HCC Standard Detail Drawings (Series L)
- HCC Street Lighting Material and Works Specification

5.7 Lighting of Traffic Calming

Pedestrian and traffic signal controlled pedestrian crossing points are areas of high conflict between pedestrians crossing the road and motorists. Lighting of traffic calming features shall comply with Highway (Road Hump) Regulations 1996 Section 5 or its successor.

Measurements of lighting levels in the immediate area shall be taken to determine if additional lighting is required.



5.8 Lighting of Pedestrian Subways

Subways are provided as a safe route for pedestrians and cyclists to cross busy traffic routes or railways. This provision should be maintained in a safe and usable condition at all times if the facility is to be used.

Subways, and the approaches to them, can be intimidating at night if they are not carefully designed and provided with good street lighting. Lighting should be designed and installed in accordance with the current British Standard for Road Lighting.

Subways should be bright and attractive to encourage their use. The walls should be treated or tiled to allow easy cleaning and removal of graffiti and of a light colour to reflect light.

Subways should be designed to allow flexible switching arrangements, providing different levels of illumination during the day and night to cope with extremes of daylight from a very bright sunlit day to a dark overcast night. Contrary to normal street lighting practices high levels of illumination have to be provided in subways during daylight if users are to feel safe entering and passing through the subway.

However, high levels of lighting during daylight hours can cause a “reverse black hole effect” when leaving a brightly lit subway on a dark night. Therefore levels of light during the hours of darkness should be reduced to between 50 and 100 Lux dependent upon the type of subway.

To further reduce the reverse black hole effect, and make the entrance and exit of subways more attractive and inviting, attention should be paid to the approach lighting to the subways with particular attention being given to a gradual reduction in lighting levels from those inside the subway to normal street lighting levels outside. Sudden transitions in lighting levels may cause distress and anxiety to users.

5.9 Light Sources

Light sources will vary but, for the purposes of street lighting, lamps will have a minimum RA value of 20. Lamps will generally be a “white light source”.

In all cases, where electronic control gear is available, then it must be used in preference to standard or low loss gear to ensure the most efficient use of energy. All new electronic control gear must be capable of dimming by a minimum of 25%.

Full details of dimming requirements can be found in the HCC Street lighting Design Guide

5.10 Luminaire Specifications

All luminaires used for the purposes of street lighting shall contain an acceptable optical system to direct the light onto the highway within the limits set by BSEN 60598.

To ensure the minimum environmental pollution to the night sky, the amount of upward light from the lantern shall be kept to a minimum and, where possible, new lantern designs shall be incorporated in the standard design specifications to maximise this approach but still retaining electrical and illumination efficiency.

All luminaires should be manufactured to a minimum of I.P. 54 to BSEN 60590 for the lamp containment area and should be manufactured from vandal-resistant material. Lanterns must be designed and tested to provide a minimum normal operating life of 25 years.

5.11 Column Specification

All street lighting columns installed on the highway shall comply with the requirements laid down in the current edition of the HCC Street Lighting Material and Works Specifications.

The only exception to the requirement above will apply to cast iron, cast aluminium or some decorative steel columns, which may be used in environmentally sensitive areas. These columns will be subject to a separate specification, when required, but generally they will be factory painted with a final decorative top coat of paint being applied on site following erection.

Particular note should be made of the requirements of Appendix 3 where columns are used for the support of street decorations, festive lighting, etc and the imposed limitations.

Signs should be mounted on columns wherever possible but within the limitations imposed by the current DTLR BD 94 (Memorandum).

5.12 Passive Safety

Where speeds are low, for example, in most urban housing estates, there is little if any advantage in using passive safety lighting columns. The risk to pedestrians in such areas is much higher in using passive safety columns when compared to conventional columns.

Passive safety columns are recommended for consideration on major urban roads where there is little likelihood of them falling onto the carriageway or pedestrians. The final determination on provision of such equipment will always be made on a site by site basis.

5.13 Location of Equipment

As a general rule obstruction of the footway by columns and illuminated sign posts should be avoided by positioning columns and posts at the rear of the footway or by the use of wall mounted lighting units. This will contribute to compliance with current legislation relating to the people with disabilities and a reduction in street clutter. Where columns and

sign posts are mounted in the highway verge they must be set back the minimum distance recommended in the current British Standard for Road Lighting. Positioning must also take into account the location of trees, vehicular accesses, overhead lines, etc as well as the edge of sign faces.

The final positioning of equipment shall be determined on site by the engineer where such drawings provided do not enable the construction team to complete the installation.

Further details can be found in the HCC Street Lighting Design Guide.



5.14 Procurement of Equipment

Subject to the County Council's Standing Orders on contracts, manufacturers/suppliers from within the county will be used to help promote local economic development, in accordance with the key Aim of the County Council in respect of promoting improvements in economic growth.

5.15 Switching and Dimming

The majority of street lighting in Hampshire is controlled by photo-electric cells (PECUs). At present these vary between older thermal pecus and the more modern electronic versions.

However all new lighting installations will be fitted remote monitoring technology which will allow greater control and flexibility of the lamp and control gear. All such equipment must be compatible with that currently used by the County Council or it's successor.

5.16 Legislation and Regulations

All public lighting should fully comply with the following legislation and regulations:

- Highways Act, 1980
- Goods and Services Act 1994
- The Local Government Contract Act 1997
- The Management of Health and Safety at Work Regulations, 1999
- Electricity at Work Regulations, 1989
- Traffic Signs Regulations and General Directions, 2002 and 2005 amendments
- Disability Discrimination Act 2005
- The Highways (Road Humps) Regulations 1999
- New Roads and Street Works Act, 1991
- Traffic Management Act 2004
- BS 7671:2008 Requirements for Electrical Installations,
- BS EN 60529: "Specification for Degrees of Protection for enclosures.
- BS EN 60598-2-3: 1994, Luminaires for Road and Street Lighting.
- BS 5649 : "Lighting Columns"

6. MAINTENANCE REQUIREMENTS

6.1 Statutory Requirements

There is no statutory obligation to provide street lighting. However, all local authorities have a duty of care to ensure highway electrical equipment is maintained in a safe condition. All systems of public lighting will be maintained to a standard that ensures its safe, economic and effective operation.

6.2 Inventories and Record Systems

The maintenance of an up-to-date electronic-based inventory of all units to ensure satisfactory management of the maintenance process, and to enable the annual assessment of the energy charge to be obtained, is vital. Inventory information, including GIS positional data and DfT risk assessment data will be gathered and maintained in accordance with the ILE Technical Report no. 22, "Managing a Vital Asset" and the UK Roads Liaison Group document "Well Lit Highways".

6.3 Fault Detection

Fault detection is currently carried out by a series of night time audits which covers all of the Counties lighting stock 19 times a year; every 28 days between April and September and every 14 days between October and March.

However remote monitoring systems which allow for fault prediction, detection and energy monitoring, are now available which will make night time scouting obsolete.

Fault Repairs:

Emergency Fault attendance	Two Hours
Urgent Fault attendance e.g. multiple lamp failures, faults at accident black-spots etc	Twenty-Four Hours
Non-Emergency Fault attendance	Three Business Days

Rectification periods which include cable faults are not subject to above timings

Electrical Inspections

Electrical inspection and testing of all street lighting is carried out every 6 years in accordance with the requirements of BS7671. All results are recorded on the County Council's asset management database.

Structural Inspections and Risk Assessments

Structural inspections and risk assessments will be undertaken on a regular basis, during the course of planned maintenance programmes, to ensure all equipment is in a safe condition. The results of these inspections will be recorded in the County Council's asset management database.

Where equipment is found to have a serious structural defect then such equipment will be replaced as soon as possible.

6.4 Trees and Arboriculture

It is important that trees and other vegetation do not impede the functions of street lights or other items of illuminated street furniture.



Detailed guidance on the design of lighting, and the planting of trees, scrubs etc are contained in the following documents:

- HCC Street Lighting Design Guide
- HCC Standard Detail Drawings
- Manual for Street

7. ADOPTION OF PUBLIC LIGHTING SCHEMES

7.1 Sections 38/278 and Other Highway Improvements - Adoption Procedures

Where the proposed works lie within areas designated to be lit (as mentioned earlier in this document) then the Highway Authority's street lighting and illuminated sign requirements shall form part of any Agreement and/or Contract. Such general requirements are laid down in the "Manual for Streets", the "Model Section 38 Agreement" and the Departmental standard drawings/material specifications.

7.2 Lighting Standards

For each development the standard of lighting shall be in accordance with the District/Estate Lighting Plan or, where no plan is available, then reference should be made to the HCC Street Lighting Design Guide.

7.3 Commencement of Works

For new works on existing adopted highways, e.g. Section 278 works, the Project Manager shall inform the County Council's Street Lighting Section of the programmed works start date no less than 28 days before commencement on site (including the maintenance numbers of the items covered by the works). The Project Manager shall ensure that the contractor is responsible for the maintenance of all street lighting within the contract site boundaries for the duration of the project. The Project Manager shall also ensure that the contractor maintains the existing level of lighting (either luminance or illuminance) during the course of the project, or until the new lighting comes into operation, and provides a written record of the maintenance undertaken during the course of the works.

7.4 Inspection, Handover of Documentation and Street Lighting Inventory

The Project Manager responsible for managing/supervising or inspecting new systems of street lighting (including Section 38 and Section 278 works) shall inform the Street Lighting Section of the substantial completion of the works no later than 10 days after completion of the works and pass all documentation to the Street Lighting Section at the same time.

The Project Manager shall ensure that all handover paperwork (including as-built drawings, completion certificates, electrical test certificates and inventory records are provided by the contractor 10 working days PRIOR to his request for substantial completion.

7.5 Consultation with Local Lighting Authority

All highway street lighting development proposals submitted to the Highway Authority, or its Agent, shall be referred to the Local Lighting Authority for a formal consultation on the design. If the design falls below the County standard, the Local Lighting Authority will be required to adopt the lighting if the lighting is to be installed.

Wider consultations may also be required, particularly in Conservation Areas where the District Council Conservation Officer shall be formally consulted on all schemes.

7.6 Commuted Sums

As a general rule all illuminated street furniture will meet the minimum specification requirements as detailed in the following documents:

- HCC Street Lighting Material and Works Specification
- HCC Standard Detail Drawings (Series L)

Subject to the agreement of the County Council, where a standard of materials is required that exceeds the standard specification, and which, as a result, will incur higher maintenance costs, a Commuted Sum, equal to the 1 off replacement cost of the furniture, will be levied payable to the County Council prior to adoption of the completed scheme.

Where a higher standard of materials is installed without the agreement of the County Council and/or where a Commuted Sum has not been paid, then adoption will not be granted and the ongoing maintenance will be the responsibility of the Developers or their appointed Managing Agents.

7.7 Embedded Networks

In the case of illuminated street furniture Embedded Networks are electricity supply networks installed by 3rd party companies rather than the local District Network Operator (or DNO).

As a general rule the County Council has no objection to the provision of such networks provided they are installed to a standard that can be adopted and maintained by the local DNO should it be necessary.

8. UNMETERED ENERGY & CLIMATE CHANGE

8.1 Unmetered Energy Procurement Strategy

Subject to the County Council's Standing Orders unmetered energy will be procured via a central buying consortium in order to obtain the best value for money possible.

In accordance with the County Council's corporate policies on Carbon Reduction the purchase of unmetered energy seeks to obtain up to 100% green energy which has benefits to the environment in reducing green house emissions and other pollutants.

However consideration of a mix of green and brown energy, or nuclear energy, will also be given.

8.2 Energy Consumption Monitoring

Monitoring of energy consumption will be achieved through the maintenance of an up to date inventory of lamps, control gear and switches.

In addition a network of photocell monitoring arrays, positioned throughout the County, will be maintained and used to provide accurate switching times in order to ensure energy billing is as accurate as possible. As remote monitoring equipment becomes available these arrays will be phased out accordingly. Once the network is completed energy consumption monitoring will be measured through the remote monitoring system.

8.3 CO2 Reduction Measures and Targets

The County Council is committed to reducing CO2 emissions by 8% by 2020 (based on 2008 figures). In real terms, taking into account annual increases in stock through new developments, this represents a 15% reduction overall.

This will be achieved through the introduction of new energy efficient lamps and control gear, dimming, trimming of lamp burning hours and deillumination of equipment where possible.

8.4 Renewable Energy Equipment

At present the availability and reliability of solar, wind or other renewable energy equipment is in it's infancy. Trials of solar powered equipment, in particular, have identified areas of improvement required to make it both energy and cost effective.

The County Council recognises the importance of the promotion and improvement in this area if it's targets on CO2 emissions are to be met.



8.5 Climate Change

The County Council is committed to tackling climate change and has published a series of ten improvement priorities including:

- Reduction of primary energy consumption and increasing it's share of renewable energies
- Sustainable procurement.

9. PERFORMANCE STANDARDS

The following Performance Standards will be measured and reported monthly to the County Council. Results of such performance will be published, as required.

- PS1 Lighting Installation (Core Investment Period)
- PS2 Lighting Performance and Planned Maintenance
- PS3 Operational Responsiveness and Reactive Maintenance
- PS4 Contract Management and Customer Interface
- PS5 Strategic Assistance and reporting
- PS6 Working Practices
- PS7 Reporting to the Authority
- PS8 Post Core Investment Period (not required)
- PS9 Installation of remote monitoring and variable light control
- PS10 Performance of remote monitoring and variable light control

PART B – APPENDICES

APPENDIX 1 - DEFINITIONS, REFERENCES AND REGULATIONS

Definitions

Lighting Authority

Hampshire County Council, as Highway Authority, is automatically a Lighting Authority. District, Borough, Town and Parish Councils can also be Lighting Authorities as well as those Social Housing Groups - previously part of District or Borough Councils - with powers to provide lighting on the highway with the consent of the Highway Authority. For the purposes of this Policy they are each termed collectively as a 'Local Lighting Authority'.

Illuminated Street Furniture

For the purpose of this Policy illuminated street furniture includes all subway lighting, illuminated signs and bollards as well as street lights. Therefore, for a large advance direction sign illuminated by a lighting unit, physically separate from the sign and its mounting, the sign would not be covered by the definition, only the lighting unit and its stub post would be included within the definition.

Highway Referencing System

A locational referencing system which uniquely identifies individual sections of public highway. It also fulfils the Highway Authority's legal obligation to hold an inventory of highways maintainable at public expense.

SOX (lamp)

Low Pressure Sodium discharge lamp (yellow light).

SON (lamp)

High Pressure Sodium discharge lamp (golden white light).

RCD

(Residual Current Device)

An item of electrical apparatus used to provide supplementary protection within a specific time period.

Definitions, References and Regulations

British Standards: BS 5489_1: 2003 Code of practice for the design of road lighting – Part 1: Lighting of roads and public amenity areas

BS EN 13201_2:2003 Road lighting – Part 2: Performance requirements

BS EN 13201_3:2003 Road lighting – Part 3: Calculation of performance

BS EN 13201_4:2003 Road lighting – Part 4: Methods of measuring lighting performance.

BS EN 12193: 2003 Light and lighting – Sports lighting

Countryside Commission/DOE Lighting in the Countryside: Towards good practice (1997) (Out of Print)

CIBSE/SLL Publications:

- CoL Code for Lighting (2002)
- LG1 The Industrial Environment (1989)
- LG4 Sports (1990+Addendum 2000)

- LG6 The Exterior Environment (1992)
- FF7 Environmental Considerations for Exterior Lighting (2003)

CIE Publications:

- 01 Guide lines for minimizing Urban Sky Glow near Astronomical Observatories (1980)
- 83 Guide for the lighting of sports events for colour television and film systems (1989)
- 92 Guide for floodlighting (1992)
- 115 Recommendations for the lighting of roads for motor and pedestrian traffic (1995)
- 126 Guidelines for minimizing Sky glow (1997)
- 129 Guide for lighting exterior work areas (1998)
- 136 Guide to the lighting of urban areas (2000)
- 150 Guide on the limitations of the effect of obtrusive light from outdoor lighting installations (2003)
- 154 The Maintenance of outdoor lighting systems (2003)

Department of Transport: Road Lighting and the Environment (1993) (Out of Print)

ILE Publications: TR 5 Brightness of Illuminated Advertisements (2001)

TR24 A Practical Guide to the Development of a Public Lighting Policy for Local Authorities (1999)

GN02 Domestic Security Lighting, Friend or Foe

ILE/CIBSE Joint Publications Lighting the Environment _ A guide to good urban lighting (1995)

ILE/CSS Joint Publications Seasonal Decorations – Code of Practice (2005)

APPENDIX 2 - ATTACHMENTS TO AND SECONDARY USES OF LIGHTING COLUMNS

In general the County Council supports the erection of decorative/festive lighting over the highway, but would prefer that such decorative lighting should be attached to or supported from buildings adjacent to the highway, wherever possible. The following guidance notes are also recommended for decorative installations over privately owned land that is open to access by the general public. For the erection of all decorative festive lighting, on or over the highway, the Highway Authority shall issue a formal licence indicating the conditions under which such apparatus may be erected on each occasion. The licence will be issued annually for each type of apparatus to be erected.

Decorative/Festive Lighting Supported from Buildings

For all decorative or festive lighting mounted over, or free standing in, the highway each installation shall:

- Be approved in writing by the Highway Authority or its Agent via a licence prior to the erection of the fixtures for a period not exceeding 28 days unless planning permission has been granted for a longer period.
- Be the sole responsibility of the body installing the lighting and shall have adequate insurance to indemnify the Highway Authority for the minimum amount for any one incident as required by the licence.
- Be removed immediately upon request by the Highway Authority or its Agent or be removed by the Highway Authority or its Agent at the owner's expense if there is concern about the safety of the system.
- Be manufactured with supports and mounting points capable of supporting the decorative fixtures which are suitable for a wind of K factor 2.

If utilising a catenary wire as support then this should be of sufficient strength to support the fixture/fitting as above. It is recommended that stainless steel or high-tensile steel be used.

Generally for protection against electric shock all systems shall be rated at 25v SELV.

However, for systems sited a minimum of 3.5 metres above the highway, mains voltage (230v) may be used. In all such systems the installer must ensure that the requirements of BS 7671 are met and supplementary protection by the use of a 30mA RCD shall be given.

All apparatus shall be erected in compliance with the following statutes and regulations:

- Health and Safety at Work Act 1974
- Electricity-at-Work Regulations 1989
- BS 7671 Regulations for Electrical Installation.

In addition to the above:

- An agreed set of inspection/emergency procedures is to be provided to the local highway management office.
- Each installation shall be tested and the electrical test certificates and test results passed to the highway management office on the day following installation to energising.
- A qualified structural engineer with professional indemnity must certify the installation.
- No installation shall be permitted where it may be in conflict with any adjacent traffic signal system.
- The installer must provide evidence of public liability to the required level as indicated in the licence.

For sound economic reasons, the columns used for the majority of highway lighting locations have been standardised and have not been designed for significant additional loadings. Consequently, this must limit the number and sizes of fixtures permissible. However, the erection of such fixtures and fittings will be permitted provided the above conditions are met.

ADDITIONAL REQUIREMENT FOR DECORATIVE LIGHTING, FLOWER BASKETS AND OTHER ATTACHMENTS TO STREET LIGHTING COLUMNS

Fixtures Attached to Street Lighting Columns

In addition to the requirement to erect decorative fixtures over a road the following requirements shall be met to permit the erection of any temporary decorative/festive lighting and flower baskets to street lighting columns:

- In the case of new or replacement lighting systems, in locations where it is known that decorative lighting will be required, the lighting columns shall have been fabricated to support such temporary lighting structures or flower baskets and a certificate of compliance lodged with the Highway Authority.

In the case of existing lighting systems being used to support decorative lighting or flower baskets:

- The system of street lighting to be used to support the decorative lighting shall be inspected at a period recommended by a competent structural engineer. A competent structural engineer shall be commissioned to provide a report to the Highway Authority or its Agent prior to the erection of the decorative lighting, confirming that the columns can structurally support the proposed decorative festive lighting or flower baskets. That engineer will have professional indemnity to support his report.



Decorative festive lights or flower baskets must not hinder the normal maintenance of the highway structure concerned.

No banner or catenary wire shall be permitted to be erected between two street lighting columns unless the structure has been designed and fabricated specifically for that purpose.

Power supplies to decorative festive lights should not be derived from adjacent buildings, but from within the street lighting column acting as the support. (This is to avoid instances of connection to private supplies, over which the Highway Authority or its Agent has no control). The body responsible for the installation/connection of the decorative lighting shall, separately, contract with an

electricity supply company for the supply of energy.

Where switch wires are used to control the power supply on adjacent columns, they shall be labelled with the location of the isolation point at appropriate positions along the length of the wire.

All temporary fixings used to attach the decorative festive lights or flower baskets to street lighting columns must be free from corrosion at all times and must be removed at the end of the licence period. Any damage to the protective surface must be made good at the licensee's expense and immediately after the removal of the apparatus.

The Highway Authority has the right to request removal of such equipment at any time, which the responsible body must comply with within 28 days of the request.

OTHER FIXTURES TO STREET LIGHTING COLUMNS (PERMANENT OR TEMPORARY)

In general, street lighting columns, whether used for permanent or temporary fixtures, should comply with the guidelines indicated in DTLR Memorandum BD 94. This means that the erection of sign plates of greater than 0.3 square metres in area is not permitted. Columns must not be used as the second leg of a sign requiring a second post, as experience has shown that this has caused significant problems with existing columns.

Street lighting columns shall not be used as supports for advertising signs of any kind, except where recognised organisations (ie Automobile Association or Royal Automobile Club) have been granted permission by the Highway Authority, and when fixed such signs should not obscure the unit maintenance number.



Temporary or Permanent Attachment of CCTV Equipment to Street Lighting Columns

Under the Crime and Disorder Act 1998 the County Council has a duty to embed crime and disorder prevention into service planning, delivery and decision making and so reduce crime and the fear of crime in all our communities.

Highways provide accessibility between destinations and the temporary or permanent location of CCTV cameras within the highway may assist with crime prevention. However, it is also necessary to consider the matters of privacy to adjoining properties, levels of light within the neighbourhood and the possibility that the crime and anti-social behaviour may disperse to adjoining areas or out of view of the cameras.

The County Council has to consider what other measures have been implemented or discounted to try and reduce levels of crime and anti-social behaviour before consideration can be given to CCTV being mounted on highway furniture.

The promoting body will need to provide the necessary data to demonstrate CCTV is justified and an analysis of the likely impacts for the area to be covered as well as the surrounding area.

Protocol

The County Council requires the promoting body to provide an analysis of crime and anti-social behaviour incidents, both in the area to have CCTV, the adjoining area and the background levels of crime in the area. This information needs to include an analysis of types of crime and time of day at which the crimes occur. Where possible, trend data should be included. The request should contain an assessment of why CCTV is expected to reduce the incidence of crime and what alternative measures have been carried out or considered and rejected.

The promoting body will normally be the Crime and Disorder Reduction Partnership (CDRP). Where the CDRP is not the promoting body, the Partnership should be used to consider the crime analysis for the location and a copy of its advice should be included with the submission.

Information should be provided on the area and demonstrate the likely coverage of any proposed CCTV. The use of temporary CCTV requiring the regular moving of the equipment between locations will only be considered in exceptional circumstances. The County Council will assess the proposals as to the practicality, effectiveness and likely benefit in reducing crime and the fear of crime.

If there is a demonstrable case for the provision of CCTV the County Council will discuss with the promoting body funding and management arrangements, including:

- capital costs of the CCTV and its installation;
- maintenance costs and responsibilities;
- operational responsibilities; and
- public liability.

If there is a strong case for CCTV being made, the Council will facilitate the erection of the equipment on the street furniture. All costs, liabilities and operational arrangements must be met by the local promoting body. An appropriate agreement will be drawn up with the responsible body.

Procedure

All installations mounted over or free standing in the highway, or mounted on highway furniture shall:

- Be approved in writing by the Highway Authority via a licence or agreement prior to the erection of the fixtures.
- Be the sole responsibility of the body installing the CCTV and shall have adequate public liability insurance to indemnify the Highway Authority for the minimum amount for any one incident as required by the licence.
- Be removed immediately upon request by the Highway Authority or its Agent or be removed by the Highway Authority or its Agent at the owner's expense if there is concern about the safety of the system.
- Be manufactured with supports and mounting points capable of supporting the equipment suitable for a wind of K factor 2.
- Generally for protection against electric shock all systems shall be rated at 25v SELV. However, for systems sited a minimum of 3.5 metres above the highway, mains voltage (230v) may be used. In all such systems the installer must ensure that the requirements of BS 7671 are met and supplementary protection by the use of a 30mA RCD shall be given.
- All apparatus shall be erected in compliance with the following statutes and regulations:
 - Health and Safety at Work Act 1974
 - Electricity-at-Work Regulations 1989
 - BS 7671 Regulations for Electrical Installation.
 - New Roads and Streetworks Act 1990
 - Traffic Management Act 2000
- An agreed set of inspection/emergency procedures shall be provided to the local highway management office.
- Each installation shall be tested and the electrical test certificates and test results passed to the highway management office on the day following installation to energising.
- Power supplies to CCTV installations should not be derived from adjacent buildings, but from within the street lighting column acting as the support. Ongoing costs for the power supply are to be agreed.
- All temporary fixings used to attach the CCTV equipment to street lighting columns must be free from corrosion at all times and must be removed at the end of the licence period. Any damage to the protective surface must be made good immediately after the removal of the apparatus.
- The Highway Authority has the right to request removal of such equipment at any time, which the responsible body must comply with within 28 days of the request.

In addition to the guidance for the erection of the CCTV equipment above each applicant shall:

- Ensure necessary signage for overt CCTV usage is displayed appropriately
- Ensure the police confirm with regard to their monitoring of the CCTV that they comply with the CCTV Codes of Practice Revised Edition 2008 or subsequent updates
- Ensure that Police / CDRP has a protocol for viewing images of CCTV and storage of evidential and disclosure material compliant with Data protection, Police and Criminal Evidence Act (PACE) and Criminal Procedures & Investigation Act 1996 (CPI).
- Ensure HCC Street Lighting Section have confirmed suitability and stability of lamp posts selected for potential CCTV use.

- Ensure third party liability with regard to erection and any damaged caused by the camera equipment is covered by HCC (erection/removal covered through the County Council Street Lighting Term Maintenance Contract).
- Ensure that the police / CDRP have appropriate mechanism for reviewing, monitoring and assessing use and continued use of CCTV.

Supply of Electricity from Public Lighting Equipment

Road works and other works carried out by the utility companies in, or adjacent to, the highway can often require a supply of electricity for temporary traffic signals, water pumps, inspection and safety lighting and other items of site equipment. Hampshire County Council is not an electricity supply authority and temporary supplies should be supplied from a portable generator. There are generators available that will run silently when installed overnight near occupied properties. The problem should not be overcome by the provision of a temporary power supply from a nearby street lamp unless arrangements have been made for the DNO to carry out the connection maintenance and disconnection of the power supply. Temporary supplies can be a danger to the public if not correctly installed and maintained.

The provision of temporary supplies of this nature can present problems for the security and safety of the lighting equipment and the temporary installation. Whilst an installation may be temporary and for a short period of time it does not remove the need for it to be installed in accordance with the Electricity at Work Regulations and the requirements of BS 7671: 2008 Regulations for Electrical Installations. It is essential that temporary electrical installations are properly installed, inspected, tested, and maintained.

It is a criminal offence to obtain electrical energy without prior agreement of the Electricity Company.

Under the terms and conditions of the connection agreement with the Electricity Company, Hampshire County Council is responsible for the payment for all energy taken from any item of highway electrical equipment owned and operated by it unless the energy is taken illegally.

Therefore, in the absence of a specific agreement between the organisation using the electricity and the Electricity Company for the payment of the electrical energy used, the Highway Authority could be held liable for the cost of the energy.

Hampshire County Council may give permission to the Electricity Company to use lighting equipment as a temporary supply point. In this instance, the County Council shall ensure that the Electricity Company will take full responsibility for the safety of the installation and maintenance of the temporary power supply and for recovering the cost of the connection and the energy used.

APPENDIX 3 - PRIVATE OFF HIGHWAY LIGHTING

Off-highway lighting adjacent to lit or unlit sections of highway can be the cause of distraction/danger to the travelling public and detrimental to the night-time environment.

This distraction/danger can be caused by glare from light fittings located in the vicinity of the highway and where the intensity of the emitted light is quite bright.

It is also becoming environmentally unacceptable to pollute the night sky from such fittings, or cause light-trespass, and Local Planning Authorities are to be positively encouraged to reduce the impact on all occasions by being offered advice on such matters.

Local Planning Authorities should also be positively encouraged to include a statement relating to light pollution and light-trespass in their Local Plans. The County Council shall provide advice on such off-highway lighting to assist the District/Borough Councils with the application of conditions to such planning applications.

All sites should be carefully monitored at the planning application stage but especially:

- Petrol filling stations.
- Car park lighting - particularly out of town shopping/commercial developments where sphere style lights in particular should be rejected as a means of area illumination.
- Industrial security lighting.
- Domestic security lighting
- Lighting for sports stadia, playing fields and golf driving ranges.
- Illuminated advertisements.
- LED or Laser Lighting which can create intense beams of light that may present a hazard.

Local Planning Authorities should be asked to scrutinise all planning applications for exterior lighting and to take enforcement action where unapproved lights have been erected and are affecting the night environment.

In general the style of lighting to be used in almost all instances should be the “down lighter” type with a flat glass (ie no bowl) lantern mounted in the horizontal position to reduce the spill light to the surrounding areas.

Illuminated advertisements should utilise the down light style of illumination.

The Institution of Lighting Engineers’ Technical Report No. 5 (2nd Edition), “Brightness of Illuminated Advertisements” is considered to have too high a level of illumination and the County Council will recommend lower levels of illumination on request.

As a general rule Local Planning Authorities are encouraged to ensure, as far as possible, their schemes, including private lighting, are designed to minimise light spill, night sky pollution and hours of operation as well as being required to be maintained throughout the life of the system.

The introduction of the Clean Neighbourhoods and Environment Act (2005) gives local authorities, and residents, greater powers in relation to poorly installed or maintained domestic security lights. Local authorities are encouraged to utilise these powers wherever reasonably possible.

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