
11 Street Lighting

The purpose of this chapter is:

- Raise awareness of the importance of street lighting in the creation of safe, quality places.

The key recommendations of this chapter are:

- Lighting must be planned as an integral part of the initial layout.
- Adequate lighting should be provided in all parts of the layout to enhance safety and security for pedestrians, cyclists and drivers.
- Lighting should be wall mounted or suspended from cross wiring wherever possible to reduce street clutter.
- The height of lighting columns should relate to context.
- White lighting is more appropriate in residential areas.

11.1 INTRODUCTION

11.1.1 The standard of street lighting to be adopted on Residential Access Roads is generally to be in accordance with British Standard 5489:1992 (parts 1-9 inclusive).

11.1.2 Lighting columns and fittings make a major impact on the appearance of the scheme and should be planned as part of the overall design concept. It is especially important that in historic towns and conservation areas particular attention should be paid to the aesthetic quality of the street lighting installation. At the same time care should be taken to avoid light pollution, particularly in rural areas.

11.2 IMPLEMENTATION

11.2.1 Lighting has an important role to play in:-


- Reducing risks of night time accidents;
- Assisting in the protection of property;
- Discouraging crime and vandalism;
- Making residents feel secure; and
- Enhancing the appearance of the area after dark.

11.2.2 Lighting arrangements may be used to identify the functions of different roads. For example, two lamp columns at the entrance to a road can be used to create a gateway effect.

11.2.3 Adequate lighting should be provided in all parts of the layout to enhance safety and security for drivers, pedestrians and cyclists.

11.2.4 Lighting is necessary to illuminate bends and traffic calming features, to enable road users to see potential obstacles and each other after dark and to reduce the fear of crime.

11.2.5 Sizes of trees and shrubs when mature and their location in the layout must be considered in relation to street lighting.



11.2.6 Lighting must be planned as an integral part of the initial layout of access and shared surface roads, shared driveways, footpaths and in conjunction with the location and anticipated growth of trees.

11.2.7 The standard of lighting provided should ensure that shadows are avoided in places where pedestrians would otherwise be vulnerable.

11.2.8 Lighting columns, wall-mounted brackets and other fittings need to be resistant to vandalism and be placed in positions that minimise risks of damage by vehicles. Detailed advice on such matters is contained in British Standard 5489 Parts 1, 3 and 9.

- Lighting columns should be located within the limits of the adoptable highway, at back edge of the footway, verge or service strip. However, it is acceptable to attach lighting units to buildings to help reduce street clutter, provided electrical connections are external to the building. This will necessitate an agreement between the freeholder of the property and the Highway/Lighting Authority.
- Lighting columns should be aligned with other street furniture and located to ensure that a clear pedestrian path, preferably at a minimum 2m width, is maintained.
- Where lighting is taken out of service, it should be removed.

11.3 LIGHTING ON BUILDINGS

11.3.1 Similarly, mounting lighting on buildings can provide a means of ensuring appropriate lighting levels without introducing additional street furniture at surface level. While maintenance and access issues can arise from the installation of such features on private property, these are not insurmountable.

HEIGHT OF LIGHTING COLUMNS

11.3.2 In designing lighting within streets, consideration should be given to the type of lighting that is appropriate in the context. It is often the case that lighting in streets is essentially suitable for highway illumination but is not entirely in keeping with the street environment.

11.3.3 Key issues in the provision of lighting are:

- Luminance
- Scale
- Colour

LUMINANCE

11.3.4 An acceptable level of street lighting is c5lux, although DfT (Inclusive Mobility, 2005) recommend that at locations where people gather, for example bus stops, 10lux is appropriate. In providing inclusive streetscapes, continuity of lighting levels is important, with sudden changes in lighting level being particularly problematic for partially sighted people. The shading effect of street trees should also be considered in determining their species, location and management.

SCALE

As noted above, much street lighting is actually provided for highway purposes. A consequence of this is that it is often located at a height inappropriate to the cross section of the street and out of scale with pedestrian users. Consideration should be



given in street design to the purpose of lighting, the scale of lighting relative to human users of the street and the signals sent to drivers by lighting design.

11.3.5 Kennedy et al report that:

11.3.6 The Latton scheme reduced height of lighting columns by c.40% to make the appearance less urban. 58% of residents who participated in a survey thought this was a good idea, with only 3% opposing. Residents believed the change would influence driving speed as well as shedding more light on the road, footways and at bus stops. This arrangement was also found to result in less intrusion of light into bedroom windows.

Kennedy, Gorell, Crinson, Wheeler and Elliott, 'Psychological Traffic Calming', TRL 641, 2005

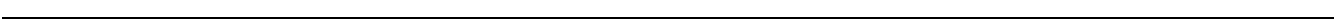
11.3.7 Where highway lighting and footway lighting are both required, some highway authorities have provided lamp columns featuring a secondary, and lower level, footway light.



Piggyback lighting to illuminate footway as well as carriageway

COLOUR OF LIGHTING

11.3.8 The colour of lighting is an additional consideration. Where pedestrians are concerned, white lighting is preferable, rather than orange. White lighting allows better discernment of street features, including the facial expressions of other street users, which can be an important factor in allaying personal security concerns.





OTHER LIGHTING CONSIDERATION

11.3.9 In some contexts, lighting can contribute to the sense of place of a street, with both active and passive (reflective) lighting features blurring the boundary between function and aesthetic contribution to the streetscape. These initiatives are often based around community projects. A prominent example of this approach has been demonstrated by Camden Council as part of their 'Boulevards Project' which has focussed on street quality and management.

