5.2 ~ Existing Lighting...

Street Lighting and Lighting of Public Spaces

Most of the lighting in the centre of Chester has been designed as road lighting with a small number of smaller scale heritage columns used, for example, in the Town Hall Square, Abbey Square and along the river side. Lighting to Lower Bridge Street also uses heritage columns in conjunction with bulkhead luminaires. The other exception is The Rows which has its own lighting scheme. On the periphery of the city, smaller heritage columns have also been used in some residential streets to the west and contemporary post-top lanterns on pedestrian-scale columns in the vicinity of the railway station and nearby residential streets.

Historic Heart

Within the historic heart of the city the lighting is predominantly provided by wall mounted heritage lanterns. In general these are of a high quality, both in terms of robustness and aesthetics, being based on Victorian gas lamps. The majority of these lanterns are fitted with a road lighting optic, giving efficient light distribution, minimising light pollution, and keeping glare to a minimum. This is particularly noticeable in longer views, where the lamp source is completely hidden within the optic. On some of the peripheral streets older style lanterns are used which do not have this type of optic and the lamp is visible.

A typical wall mounted heritage lantern

The lighting on the main streets is, in general, designed to a high standard with appropriate lighting levels and reasonable uniformity.

The lamp used in these lanterns, along with all other street lighting within the city centre, is high pressure sodium, an orange source (colour temperature of 2100K with a colour rendering index of > 20). This means that at night it can be difficult to differentiate colours accurately under this light. Sodium lighting also gives the city the feel of a typical town or city, where the perception can be that the roads at night are for cars and not people. High pressure sodium also has the effect of rendering the Tudor-style buildings as orange and black and not as black and white.

Orange and black Tudor building under sodium lighting

A typical flood light - although fairly discreet it could be less visible and the absence of any glare control is unacceptable

Older style / functional road lighting lanterns within the city walls – both lanterns and columns would benefit from renewal

Outside Historic Heart but within City Walls

Outside of the heritage core, but within the city walls, there is a mixture of wall mounted heritage lanterns, columns with functional road lighting lanterns and some wall mounted bulkhead luminaires. The latter not only lights the roads and pavements but tends to flood the buildings across the street. This has some benefit, often lighting attractive buildings and providing useful vertical illuminance, but these positive points are sometimes outweighed by the glare these luminaires create and there is some contribution to light pollution and skyglow. Cheshire West and Chester Council take the issue of light pollution and skyglow very seriously and clearly these luminaires have only been used due to practical difficulties with other solutions. They are also unattractive by day.

Column mounted heritage lanterns

Other than on the primary traffic routes and shopping streets, much of the functional road lighting equipment (both columns and luminaries) are relatively old and would benefit from renewal over the next few years.

Mounting heights of luminaires have often been selected in line with road lighting design standards. Building mounted lights within the heritage core of the city centre are an exception and in most places are located sympathetically with the architecture and at a height appropriate for lighting pedestrian spaces. Building and column mounted equipment on residential streets on the periphery of the city centre are at a height in line with the scale of the buildings. Lighting to traffic routes tends to use taller columns, with pavements and adjacent footways lit by spill light from the road. As a consequence lighting to pedestrian areas sometimes contributes to the feeling that vehicles have priority.

Highway lighting to the ring road

Ring Road

Moving out towards the periphery of the PRDG study area, the city centre is circled by the ring road. As well as providing a physical barrier for pedestrians by day, by night the lighting of this road deters pedestrian movement further. Tall columns and high pressure sodium lighting create a visual barrier and although the underpasses are reasonably brightly lit, the nature of the physical layout (with many bends and corners) does little to improve the perception of safety. This makes these underground routes an unlikely choice at night.

The Rows

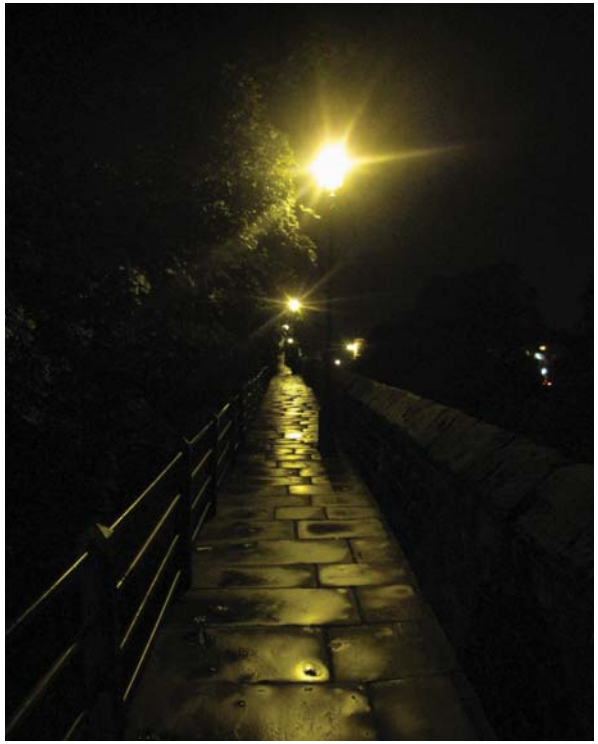
The Rows have been lit relatively recently and in general the scheme, which uses white light from purpose designed wall lights, works well. Having said this, a review of this lighting would be recommended as there are some locations that could be improved. The nature of The Rows means that there will always be areas that are not visible to those outside. Although high levels of white light will do much to reduce crime and the perception of crime if groups of youths are able to use these spaces, safe in the knowledge that they cannot be seen by others, then some anti social behaviour is inevitable. The current scheme presents some problems with regard to maintenance, which is both labour intensive and expensive; however, due to the unique nature of the Rows and their importance in the history and identity of Chester it is difficult to suggest any way of reducing these costs. A separate document looking at The Rows Management has been produced which addresses in more detail the maintenance issues surrounding the Rows - this is available through Chester Renaissance. The feature lighting within the Rows also presents some issues and these are discussed in the section on existing architectural feature lighting on page 170.

Alleys and Backlands

There are many back routes, alleys and side streets in and around the Rows and streets within the city core. Many of these smaller streets and alleys are inconsistently lit. For example, the short link between Trinity Street and Watergate Street, which forms an important route connecting to the multi storey car park on Trinity Street, is very dark and unwelcoming. Some of the small alleys off the Rows act only as short cuts to locals who know where they are and are equally inadequately lit. This either discourages use or allows opportunities for criminal elements to hide. These back routes are sometimes partially lit, for example at each end. Regardless of lighting, many of these routes are potentially dangerous at night due to their isolation.

The Walls

The public realm lighting to the walls generally uses high pressure sodium sources in heritage lanterns. The installation of lighting has been inconsistent, creating some areas that are dark and isolated at night. The orange sodium does little to provide an appropriate environment for this important heritage site and pedestrian route. This situation is repeated on some other important pedestrian routes, such as the footpath running from Little St John Street down to the Groves and the river side. This has the effect of isolating the river from the city centre for many who may feel uncomfortable or unsafe using this path at night.



The lighting columns on the wall are historically inappropriate and restrict the width of the walkway. The sodium lighting does little to enhance the ambience.

Some parts of the Wall have been lit, most notably the medieval wall within the Roman Gardens and the Water Tower Gardens. The installations in both these locations are quite obtrusive, using large steel housings to protect luminaires from vandalism, some of which are mounted on poles. The success of these schemes is limited, although they are now nearing the end of their lives.

Vandal housings – large and obtrusive.

Canal

The Canal is a major asset to the city with some bars and restaurants successfully located along it with the potential for many more; however, the lighting to the canal side is either currently by road lighting schemes or by quite functional post top or wall mounted lanterns. Similarly functional luminaires are provided under bridges. There is room for improvement to make this environment safer and more attractive to people at night.

Legibility and Wayfinding

In general the public lighting contributes only a little as an aid to legibility and way-finding and could do much more to contribute to the individual characters of different spaces within the city centre. Lighting can be used more successfully in the future, as a tool within the context of public realm design to bring about functional and aesthetic improvements, as well as redressing the balance between vehicle and pedestrian use within the city centre.

Functional canal side lantern

Under-bridge lighting – functional and bleak – opportunity for art projects?

Architecture and Feature Lighting

There is a range of lighting to buildings within the city of very mixed quality in terms of appearance, appropriateness, efficient use of energy and contribution to light pollution. In general the quality of schemes, although not especially high, is also not especially bad. The biggest issue is in fact the absence of schemes on some very important buildings, such as the Cross, the Heritage Centre, The Guildhall and Grosvenor Museum, to name some of the more prominent. Maintenance is also an issue at locations such as the Town Hall, the Cathedral (due to be revisited as part of current design projects), St John's Church ruins and some of the wall schemes. Having said this, some of these schemes are at the end of their lives and due for replacement. There are also some schemes on important buildings, such as St Mary's Centre, that could be much improved. The lighting to buildings within the city has in the past been undertaken purely from the perspective of the building and not within the context of public realm (other than forming a visual composition within the public realm). Current thoughts on lighting design integrate lighting more closely within a framework of sustainable public realm and urban design.

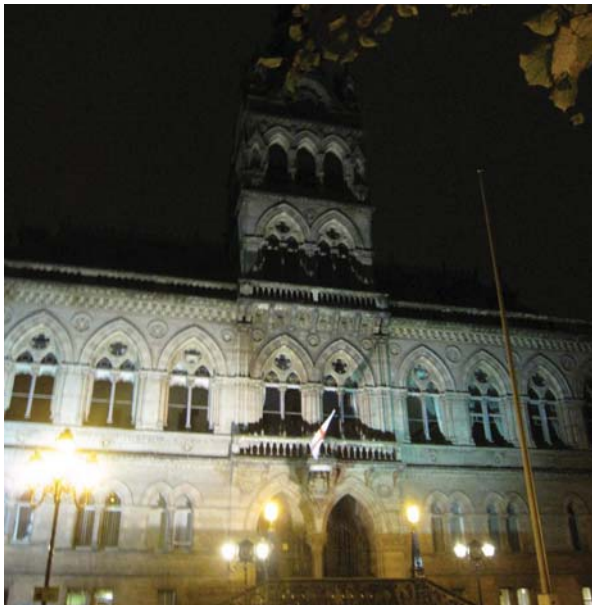
Public Buildings and Landmarks

There are opportunities to light or relight key buildings and landmarks within the city centre to provide visual impact and highlight history and architecture. In addition, provision of distinctive night-time features will aid orientation and way-finding. Legibility can also be improved through the highlighting of routes across the city and lit buildings will contribute to the design and feel of public spaces at night.

The following provide some examples of existing opportunities to make improvements:

- The Town Hall is badly lit and the lighting poorly maintained. In its current form it contributes very little to the adjacent public space (Town Hall Square). Its tower is highly visible over some distance, particularly from the west, but is currently not part of the night-scape of the city.

The Town Hall Tower is an important landmark with attractive features.



The Town Hall is badly lit and a wasted opportunity. The current lighting is flattening and inconsistent, it does little to enhance the architectural features of the building and the tower is inadequately lit. The lamps used are of inconsistent quality giving an inappropriate colour cast.

The Town Hall square is not enhanced by its lighting at night.

A wasted opportunity for an iconic symbol of Chester.

- The Cross is an iconic symbol of Chester and key orientation point. It is currently unlit, disappearing at night completely.

- The Eastgate Clock, another iconic landmark, is lit in high pressure sodium orange making it appear gloomy and a shadow of its potential if it were better lit and in warm white light.

- The Station, an important gateway to the city, has been lit reasonably well, although there are maintenance issues. The towers however have been lit to be viewed from a close distance. This means the station lighting does not fulfil its role in assisting wayfinding at night, which would be useful.

The Rows, Retail and Leisure Outlets

Part of Chester's distinctive night-time character is the diverse range of shops, restaurants, bars and pubs with their lit shop windows, signs and architectural features, particularly in and around the Rows. The quality of this lighting is patchy and could be improved both in terms of quality and consistency along with the energy efficiency of some of the shop window schemes. Some shop windows are not lit at all, possibly for economic reasons. However, if higher standards of design were employed, the cost of energy and carbon footprint could in many cases be reduced.

Within the city centre much of the lighting to bars, restaurants and hotels makes a positive contribution to the public spaces, having been undertaken reasonably sensitively.

Even simple lighting can have a positive impact. The lighting to this restaurant contributes to the ambience around the canal.

Moving out to the periphery of the city centre, the lighting to some of the bars and restaurants is unsubtle and often inappropriate within the context of adjacent buildings and locations. In particular the hotels in front of the railway station have inappropriate schemes, both in terms of the architecture of the buildings and as landmarks which frame the route into the city centre for visitors arriving at night. The schemes are lacking in sensitivity and dignity for buildings within a heritage city and conservation area. Lighting of these buildings is a positive thing, however not in the way it has been undertaken.

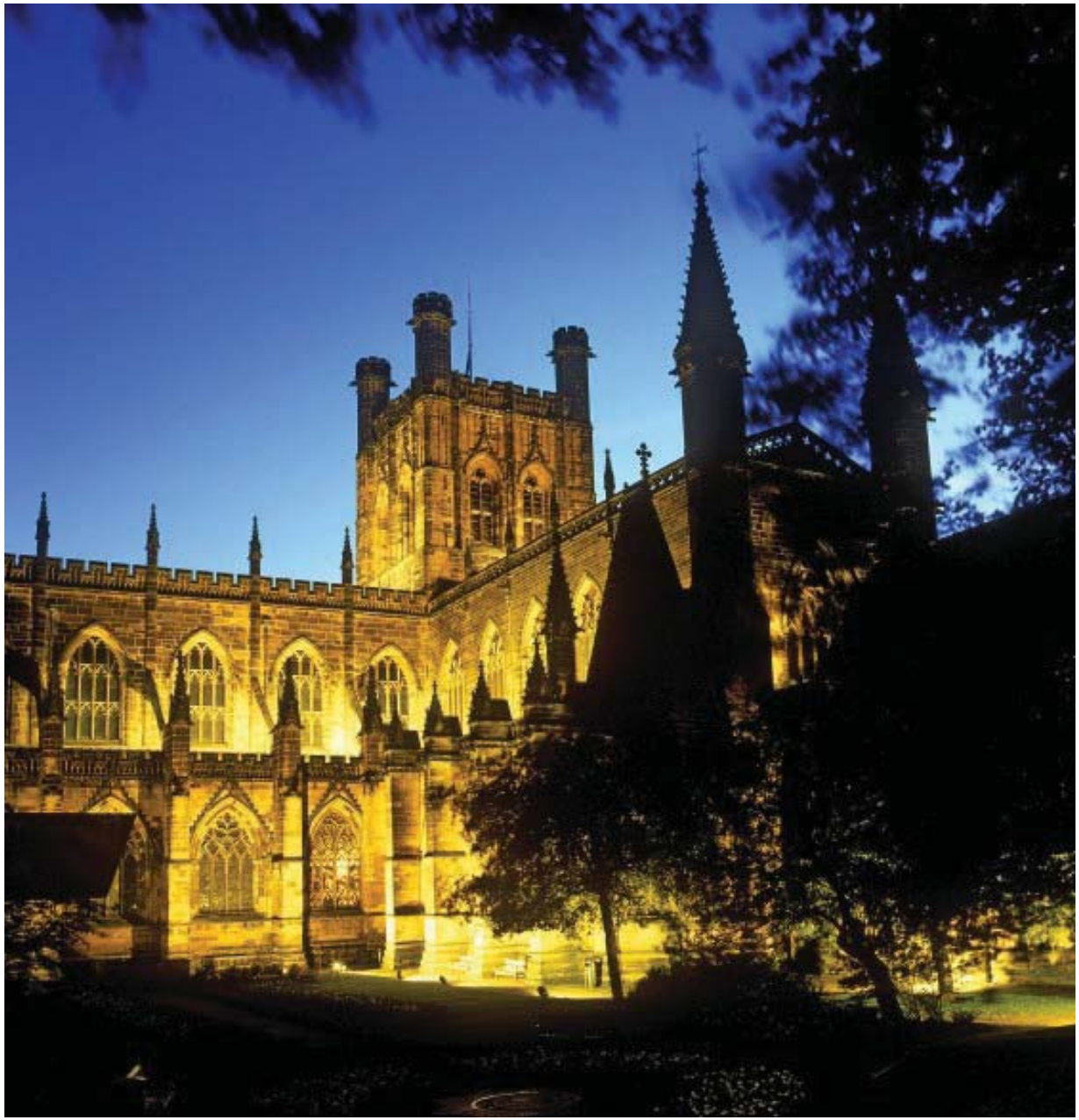
Poorly executed or inappropriate lighting has a negative impact. This hotel is the first thing seen when leaving the railway station and does little to promote the city in a dignified way.

The maintenance of the Rows lighting is in general very good, however there are some inconsistencies which compromise the quality of the scheme.

The Rows lighting includes elements of architectural feature lighting, in particular back lighting to pillars and the lighting of soffits. The delivery of this lighting is patchy. Some of the luminaires are poorly positioned creating hot spots and / or glare. Sometimes the light output is insufficient to deliver the intended effect. There are also some luminaires that are fitted with the wrong colour temperature lamps which look incongruous or use LEDs which are too dim or blue in colour and provide poor light distribution. It is not clear if these are design or maintenance issues, however it is apparent that the complexities of arrangements between the city and building / shop owners is making management difficult, which is likely to have contributed to these issues.

Conclusion

The existing lighting in the centre of Chester is a mixture of new and old, public and private. Maintenance and management in some areas is good and in others could be improved. It is clear that a more coordinated approach to design, management and integration within the public realm could have a significant impact and contribute to a more attractive, safer and more economically viable city centre at night.



Chester Cathedral at night