

**Open Report on behalf of Andy Gutherson,  
Interim Executive Director for Place**

Report to:	<b>Highways and Transport Scrutiny Committee</b>
Date:	<b>21 January 2019</b>
Subject:	<b>Street Lighting Policy 2019 – Including actions from Part Night Street Lighting Scrutiny Review</b>

**Summary:**

This item invites the Highways and Transport Scrutiny Committee to consider a report regarding the Street Lighting Policy 2019, including actions included as a result of the Part Night Street Lighting Scrutiny Review.

This report is due to be considered by the Executive Councillor for Highways, Transport and IT between 25 January 2019 and 1 February 2019. The views of the Scrutiny Committee will be reported to the Executive Councillor as part of his consideration of this item.

**Actions Required:**

- (1) To consider the attached report on the Street Lighting Policy 2019 and determine whether the Committee supports the recommendations to the Executive Councillor.
- (2) To agree any additional comments to be passed to the Executive Councillor for Economy and Place in relation to this item.

### 1. Background

In April 2018, a Scrutiny Review into the Impact of the Part Night Street Lighting Policy made a number of recommendations which were subsequently accepted by the Executive.

The principal amendments incorporated in the proposed updated Policy – shown in Appendix A to this paper – are the inclusion of a number of Annexes:

- Protocol for reversal of part-night lighting (this is a newly created Annex to address the recommendations of the Scrutiny review)
- Exemptions to Part Night Lighting (this is a newly created Annex to address the recommendations of the Scrutiny review)

- Street lighting design standards (this is an existing document which is Annexed to the Policy for the first time to aid understanding of the Policy. It includes the list of exemptions from part-night lighting)
- Protocol for future switch offs and subsequent removal (this is a newly created Annex)
- Protocol for permitting of attachments to street lighting assets (this is an existing document attached to the Policy for the first time to aid understanding of the Policy).

The full report is attached at Appendix 1 to this report.

## 2. Conclusion

Following consideration of the report, the Highways and Transport Scrutiny Committee is requested to consider whether it supports the recommendations in the report and whether it wishes to make any additional comments to the Executive Councillor.

## 3. Appendices

These are listed below and attached at the back of the report	
Appendix 1	Street Lighting Policy 2019 – Including actions from Part Night Street Lighting Scrutiny Review

## 4. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were used in the preparation of this report.

This report was written by John Monk, who can be contacted on 01522 552394 or [john.monk@lincolnshire.gov.uk](mailto:john.monk@lincolnshire.gov.uk).

**Open Report on behalf of Andy Gutherson,  
Interim Executive Director for Place**

Report to:	<b>Councillor R G Davies, Executive Councillor for Highways, Transport and IT</b>
Date:	<b>Between 25 January 2019 and 1 February 2019</b>
Subject:	<b>Street Lighting Policy 2019 – Including actions from Part Night Street Lighting Scrutiny Review</b>
Decision Reference:	<b>I017223</b>
Key decision?	<b>Yes</b>

**Summary:**

In 2018 a Scrutiny Review into the Impact of the Part Night Street Lighting Policy resulted in a number of recommendations. This report proposes an updated Street Lighting Policy for consideration; taking into account the relevant recommendations from the Scrutiny Review.

**Recommendation(s):**

That the Executive Councillor for Highways, Transport and IT approves the updated Street Lighting Policy attached at Appendix A.

**Alternatives Considered:**

To reject the proposed amendments to the Street Lighting Policy; which includes a Protocol for Reversal of Part Night Lighting and a list of Part Night Lighting Exemption Sites. However this would go against recommendations of the 2018 Scrutiny Review into the Impact of Part Night Lighting.

**Reasons for Recommendation:**

To address the recommendations of the 2018 Scrutiny Review into the Impact of Part Night Lighting.

## 1. Background

In April 2018, a Scrutiny Review into the Impact of the Part Night Street Lighting Policy made a number of recommendations which were subsequently accepted by the Executive. The following two recommendations impact upon the Street Lighting Policy:

- That the Executive considers formalising the list of exemption sites as part of the County Council Street Lighting Policy and include an additional exemption for community public access defibrillator sites where requested by local communities.
  
- That the Executive considers the County Council developing an appropriate protocol to enable local communities (through Town/Parish/District Councils) to financially support street lighting to be upgraded to LED and reinstated to full night operation on request as part of routine maintenance.

As these two recommendations have been considered and accepted by the Executive, they have therefore resulted in a review of the existing Street Lighting Policy.

In addition, the opportunity has been taken to update the Policy for other matters.

The principal amendments incorporated in the proposed updated Policy – shown in Appendix A to this paper – are the inclusion of a number of Annexes:

- Protocol for reversal of part-night lighting (this is a newly created Annex to address the recommendations of the Scrutiny review)
- Exemptions to Part Night Lighting (this is a newly created Annex to address the recommendations of the Scrutiny review)
- Street lighting design standards (this is an existing document which is Annexed to the Policy for the first time to aid understanding of the Policy. It includes the list of exemptions from part-night lighting)
- Protocol for future switch offs and subsequent removal (this is a newly created Annex)
- Protocol for permitting of attachments to street lighting assets (this is an existing document attached to the Policy for the first time to aid understanding of the Policy).

As the Annexes to the Policy (other than Annex 2) are matters of process rather than policy, it is proposed that in future they will be revised and updated as necessary by officers. The Policy itself, which enables the Annexes, together with Annex 2) would still be a matter for member approval.

## 2. Legal Issues:

### Equality Act 2010

Under section 149 of the Equality Act 2010, the Council must, in the exercise of its functions, have due regard to the need to:

Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act

Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it

Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The relevant protected characteristics are age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation

Having due regard to the need to advance equality of opportunity involves having due regard, in particular, to the need to:

Remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic

Take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it

Encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low

The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities

Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to tackle prejudice, and promote understanding

Compliance with the duties in section 149 may involve treating some persons more favourably than others

The duty cannot be delegated and must be discharged by the decision-maker. To discharge the statutory duty the decision-maker must analyse all the relevant material with the specific statutory obligations in mind. If a risk of adverse impact is identified consideration must be given to measures to avoid that impact as part of the decision making process

<p>The original Equality Impact Analysis (EIA) for the Street Lighting Transformation Project (which implemented the current Street Lighting Policy) has been reviewed as part of the review of the Policy. It is considered that the content of the original document stills stands, particularly as it made reference to evaluation and monitoring of the original project, which has been carried out through the Scrutiny Review.</p>
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Under Annex 1 to the proposed updated Street Lighting Policy, applications for the reversal of part night lighting will be expected to include an EIA with their application. This is to confirm that the impact on persons with protected characteristics (ref: Equality Act 2010) of any decision to reverse part night lighting has been considered by the people or organisations proposing the reversal. The requirement for an EIA will become part of the application pro-forma. The EIA carried out by the applicant will be considered by the street lighting team against the County Council's own Equality Act duties before a request for reversal is actioned.

### Joint Strategic Needs Analysis (JSNA and the Joint Health and Wellbeing Strategy (JHWS)

The Council must have regard to the Joint Strategic Needs Assessment (JSNA) and the Joint Health & Well Being Strategy (JHWS) in coming to a decision

Consideration has been given to the JSNA and the JHWS and their principles are reflected in the addition to the exemptions in Annex 2 to the Policy and the Protocol for reversal of Part Night lighting in Annex 1.

### Crime and Disorder

Under section 17 of the Crime and Disorder Act 1998, the Council must exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent crime and disorder in its area (including anti-social and other behaviour adversely affecting the local environment), the misuse of drugs, alcohol and other substances in its area and re-offending in its area

The 2018 Scrutiny Review into the Impact of Part Night Lighting received input from Lincolnshire Police. Recommendations from that review made using that input from Lincolnshire Police are now being implemented.

## **3. Conclusion**

Following consideration of the report by the Scrutiny Committee, the Executive Councillor is requested to consider and approve the updated Street Lighting Policy attached at Appendix A which reflects the recommendations of the Scrutiny Review

#### **4. Legal Comments:**

The Council has the power to adopt the recommended changes to the Policy.

The decision is consistent with the Policy Framework and within the remit of the Executive Councillor

#### **5. Resource Comments:**

Approving the Street Lighting Policy as set out in this report, should have no material impact on the Council's budgets. The collection of income required as part of the administration of the scheme will be undertaken by an agreed budget holder within the service.

#### **6. Consultation**

##### **a) Has Local Member Been Consulted?**

n/a

##### **b) Has Executive Councillor Been Consulted?**

Yes

##### **c) Scrutiny Comments**

The report will be considered by the Highways and Transport Scrutiny Committee at its meeting on 21<sup>st</sup> January 2019. The comments of the Committee will be reported to the Executive Councillor prior to the decision being taken

##### **d) Have Risks and Impact Analysis been carried out?**

Yes

##### **e) Risks and Impact Analysis**

See the body of the Report

#### **7. Appendices**

These are listed below and attached at the back of the report

Appendix A	Proposed New Street Lighting Policy and Annexes
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## 8. Background Papers

Document title	Where the document can be viewed
Part Night Street Lighting Scrutiny Review	<a href="https://www.lincolnshire.gov.uk//Download/112493">https://www.lincolnshire.gov.uk//Download/112493</a>
Existing/Prevailing LCC Street Lighting Policy	<a href="https://www.lincolnshire.gov.uk//Download/100836">https://www.lincolnshire.gov.uk//Download/100836</a>
Executive Councillor Decision I011656 July 2016 (including EAI)	<a href="http://lincolnshire.moderngov.co.uk/ieDecisionDetails.aspx?Id=308">http://lincolnshire.moderngov.co.uk/ieDecisionDetails.aspx?Id=308</a>

This report was written by John Monk, who can be contacted on 01522 552394 or [john.monk@lincolnshire.gov.uk](mailto:john.monk@lincolnshire.gov.uk).

# **STREET LIGHTING POLICY – Proposed January 2019**

## **1.0 POWERS IN RELATION TO STREET LIGHTING**

**1.1** Under the Highways Act 1980, Lincolnshire County Council:-

- is the Highway Authority within the county of Lincolnshire
- is the prime Street Lighting Authority in the county of Lincolnshire
- is empowered to light roads
- does not have a duty to provide lighting for roads.

**1.2** Other local councils in Lincolnshire have or may adopt powers to provide street lighting (eg City, Borough, District and Parish Councils).

**1.3** Highways England (HE), as the government company responsible for Trunk Roads across the country, may provide street lighting for Trunk Roads within Lincolnshire.

## **2.0 STREET LIGHTING ON EXISTING ROADS**

**2.1** On existing adopted roads, the County Council will, as far as practicable, ensure its lighting forms a sustainable network by managing energy consumption to a minimum by:

- A. Working through the following hierarchy for existing street lights wherever practicable, including when lighting comes to the end of its useful life:-
1. Complete removal of lights and equipment following a period of switch off (as point 2) and a subsequent post switch off assessment. This will be subject to budget constraints.
  2. Turning lights off (subject to a lighting assessment).
  3. Part night lighting as described in section 7.5 of this policy (excluding exemptions listed in Annex 2) .
  4. Dimming lights as described in section 7.5 of this policy.
  5. As a last resort, leaving lights fully lit during normal lighting hours.
- B. Only supporting the provision of additional street lights on the existing highway where they are part night lit or dimmed and either:-
1. it is in the interest of improving road safety (see 3.0 below) and finance is available from road safety budgets or;
  2. they are paid for as part of a S278 scheme required for a developer to comply with a planning condition and are accompanied by a commuted sum.
- C. Considering removal or replacement of existing street lighting, taking account of the hierarchy in A above:-
1. when it comes to the end of its useful life and it is financially sustainable in the specific location, considering replacement or removal costs or;
  2. when paid for as part of a S278 scheme required for a developer to comply with a planning condition.

- 2.2** County Council funding for street lighting shall be restricted to publicly maintainable adopted highway.
- 2.3** Requests for the addition, removal or replacement of street lights from individuals or community groups will be required to be directed through the relevant Parish Council or, where there is no Parish Council, the equivalent precept-issuing authority. The same shall apply to requests for the reversal of Part Night Lighting as detailed in Annex 1 - Protocol for reversal of part night lighting.
- 2.4** Where the County Council does not own the street lighting on existing highway, requests for the addition, removal or replacement of the street lights will be forwarded to the owner of the lighting.

### **3.0 STREET LIGHTING TO IMPROVE ROAD SAFETY**

- 3.1** Improvements will be considered (subject to budget constraints) where there is a night to day accident ratio greater than 2:1 and
- There is a proven accident record over the last three years bearing in mind the causes of the accidents and
  - Where there have been a minimum of three separate night time injury accidents within 1km of road and
  - Simpler engineering alternatives have been tried and have not been successful.
- 3.2** Improvements to street lighting for road safety purposes will be subject to the availability of finance from road safety budgets.

### **4.0 STREET LIGHTING AS AN AID TO COMBAT CRIME**

- 4.1** In accordance with street lighting design standards, street lighting designs shall give special consideration to increased lighting levels in higher crime areas. This consideration shall remain an integral part of the street lighting design process and shall be identified through liaison with the police.
- 4.2** Subject to engineering constraints the County Council will cooperate with law enforcement agencies and local authority CCTV operators who wish to use street lights as a convenient support and electricity supply point for CCTV camera equipment intended for monitoring possible criminal activities on the highway. Refer to Annex 5 – Attachments to Street Lighting Assets.

## **5.0 STREET LIGHTING FOR NEW ROADS AND ROAD IMPROVEMENTS**

- 5.1** Street Lighting shall be subject to an assessment incorporating environmental, economic and safety considerations.
- 5.2** Major new sections of road will require an economic assessment carried out in accordance with DfT standard “TA 49/07 Appraisal of New and Replacement Road Lighting”. Event sections and conflict areas within the new road/improvement will require a separate risk assessment.
- 5.3** Where it is determined that street lighting is justified on a new section of road the relevant options within the hierarchy described in section 2.1 A shall apply.

## **6.0 STREET LIGHTING FOR DEVELOPMENT ROADS**

- 6.1** Street Lighting will normally be provided by the developer and adopted by the County Council under the terms of section 38 or section 278 of the Highways Act 1980 or section 106 of the Town and Country Planning Act 1990. On section 38 schemes, street lighting shall be part-night lit (see Section 7.5 of this policy).
- 6.2** In accordance with highway adoption procedures, lighting installations on proposed highway will be adopted concurrently with the rest of the adoption.
- 6.3** The developer will be responsible for all repairs, maintenance and energy charges for Street Lighting Assets (lighting and illuminated signs) until adopted by Lincolnshire County Council.
- 6.4** The installation of decorative street lighting equipment may be approved subject to conditions and appropriateness. For further information, including calculation of commuted sums, please refer to Lincolnshire County Council Street Lighting Design Guide.

## **7.0 STREET LIGHTING STANDARDS**

- 7.1** Street Lighting installations shall be the minimum standard for each class of road and designed in accordance with the recommendations contained in the prevailing version of BS:5489 and BS EN 13201-2 as detailed in Street Lighting Design Guide.
- 7.2** In the interest of economy during the whole life of a street lighting installation designers shall be permitted to manage reasonable relaxations or departures from the recommendations contained in the prevailing version of BS 5489.
- 7.3** Street lighting associated electrical installations shall comply with the prevailing version of BS 7671; The Requirements for Electrical Installations.
- 7.4** LED lamps shall be the preferred light source throughout the county.

- 7.5** Street Lighting burning hours will be:  
Part Night Lighting: Dusk to 24:00 then  
06:00 to Dawn  
Dusk and Dawn switching levels as All Night Lighting  
Dimmed Lighting: Depending on road geometry, expected use, traffic volumes and speed:  
22:00 to 06:00 dimmed to 75% OR  
24:00 to 06:00 dimmed to 75% OR  
20:00 to 24:00 dimmed to 75% then to 06:00 dimmed to 50%  
Dusk and Dawn switching levels as All Night Lighting  
All Night Lighting: Dusk to Dawn 35 LUX on and 18 LUX off  
Pedestrian Subway lighting twenty-four hour operation

\*The UK adjusts clocks between British Summertime and Greenwich Mean Time in the spring and autumn. The lights have individual sensors that monitor the number of daylight hours, which is how they set their internal clock. This is then used to adjust for the change to British Summertime or Greenwich Mean Time. That means the sensors on the part-night lights enter a period of adjustment during spring and autumn, where the lights may start to turn off, or dim, slightly earlier or later than normal. Unfortunately, this is unavoidable but should have little or no impact on safety.

- 7.6** To minimise light pollution, lanterns on principal routes shall have a cut off distribution to minimise upward light glow with little or no light emitted above the horizontal.
- 7.7** Wherever possible in dimmed areas the levels of light at the bright and dimmed phases shall be compatible with an appropriate standard derived from the prevailing version of BS 5489 and BS EN 13201-2.

## **8.0 STREET LIGHTING, OPERATION, MAINTENANCE AND INSPECTION**

- 8.1** Inventory shall be maintained to satisfy the requirements of the Un-Metered electricity supplier, and the County Councils Asset Management Plan.

### **8.2 MAINTENANCE INTERVALS**

Shall be carried out in accordance with the County Council's Highways Asset Management Plan

## **9.0 ELECTRICITY SUPPLY**

- 9.1** Refer to Street Lighting Design Guide.

## **10.0 STREET LIGHTING DESIGN SERVICES**

- 10.1 Where requested to do so the County Council's Technical Services Partnership will provide the design and supervision resource for street lighting schemes.
- 10.2 Due to the complexity and specialism of highway electrical work, specification and supervision of any type of highway electrical equipment shall be undertaken by the County Councils Technical Services Partnership.
- 10.3 The design cost of street lighting schemes will be recharged to the client (i.e. developer or local authority) that commissions the work.
- 10.4 Fees for design services will be charged to recover the cost of design work, site supervision, administration and contract preliminaries
- 10.5 In accordance with the county council's sustainability programme to reduce carbon emissions lighting, replacement schemes shall be designed to optimise energy savings.
- 10.6 Street Lighting proposals in conservation areas and areas of outstanding natural beauty may be referred to the appropriate planning authority for comment where required.

## **11.0 SHARED SERVICES PROVISION**

- 11.1 The street lighting service has been identified as one in which service provision can be shared between participating authorities.
- 11.2 A service level agreement relating to "Maintenance of Unmetered Open Space Lighting" has been established pursuant to and subject to the conditions set out in the Collaboration Agreement dated 4 September 2008 made by the Lincolnshire Shared Services Partnership.
- 11.3 Participating authorities may be District, Town, City or Borough councils within Lincolnshire.
- 11.4 Participating authorities will retain ownership of their street lights, pay energy charges, meet the full cost of maintenance and replacements, and meet full cost of providing additional lights including connection charges and commuted sums.

## **12.0 PASSIVE SAFE LIGHTING COLUMNS**

- 12.1 Passive Safe Lighting Columns may be used in individual circumstances where appropriate.
- 12.2 For further information regarding the implementation of Passive Safe Lighting Columns please refer to Street Lighting Design Guide.

# **LCC STREET LIGHTING POLICY – ANNEX 1**

## **PROTOCOL FOR REVERSAL OF PART NIGHT LIGHTING**

### **Stage 1 – Request**

- 1.1 Requests shall be made by email to [streetlighting@lincolnshire.gov.uk](mailto:streetlighting@lincolnshire.gov.uk) and copied to the local County Councillor.  
Requests shall only be considered direct from Parish Councils or, where there is no Parish Council, the equivalent precept-issuing authority.
- 1.2 Requests received from any other source will be returned to the requester, who will be directed to the Parish Council or equivalent precept-issuing authority.
- 1.3 Requests shall only be considered for reversal of part-night lighting for all lights on the complete length of any named street.
- 1.4 Requests shall be accompanied by:
  - A plan (map) showing the location and number of part-night lights to which the request applies (NB this shall be for all lights on the complete length of any named street)
  - A list of the column numbers on the complete length of the named street(s)
  - A clear statement as to whether the reversal is requested to be done:
    - as part of LCC's routine maintenance programme (published on the County Council's website), in which case a complete and correct request must be received at least three months in advance of the programmed routine maintenance
    - or outside the routine maintenance programme, in which case a complete and correct request must be received with at least eight weeks' notice to the preferred completion date of works (NB see below regarding cost implications)
  - A statement that the requesting authority:
    - has taken into account the views of all residents, businesses etc. affected by the request
    - will respond to all future enquiries in relation to the reversal
    - has funding in place and available for the reversal
  - An Equality Impact Assessment , demonstrating that the request has taken into consideration the impact on persons with protected characteristics under the Equality Act 2010

## **Stage 2 – Validation and Consideration of Request**

- 2.1 The Street Lighting team will validate that the request is complete with all correct accompaniments, from the appropriate authority, meets the requirements of this Protocol and in particular paragraph 1.3 and evidences appropriate consideration of the impacts on people with a protected characteristics.
- 2.2 Where the request is complete and meets the requirements of paragraph 2.1 above , the Street Lighting team will consider whether the required notice periods have been met by the requester:
  - At least three months in advance of routine maintenance or
  - At least eight weeks for reversals requested to be done outside of routine maintenance
- 2.3 Where the request is not complete or does not meet any of the requirements of paragraph 2.1 above, or where the notice periods have not been met, then the request will be returned to the requester, highlighting where it is deficient, and copied to the local County Councillor. Otherwise the request will proceed to implementation, subject to paragraph 3.4.

## **Stage 3 – Costs and Payment**

- 3.1 The one-off cost per light for reversal as part of routine maintenance is £150, irrespective of the existing equipment in place.
- 3.2 The one-off cost per light for reversal outside of routine maintenance is £300, irrespective of the existing equipment in place.
- 3.3 The requesting authority will be invoiced by the County Council with sufficient time for the payment to be made in advance of the reversal taking place.
- 3.4 Where payment is not received in advance of the reversal taking place, the reversal may be cancelled and the requesting authority additionally invoiced for any abortive costs.

## **Stage 4 – Implementation**

- 4.1 The Street Lighting team will place an order through its term maintenance contractor to either:
  - Include the reversal as part of the routine maintenance programme
  - Carry out the reversal outside of routine maintenance, as additional work outside of normal workload, so as not to interrupt the routine maintenance programme
- 4.2 On completion of the reversal, the requesting authority will be notified by the Street Lighting team.

## **STREET LIGHTING POLICY – ANNEX 2**

### **EXEMPTIONS TO PART NIGHT LIGHTING**

1.0 Street lighting in many areas of Lincolnshire (generally but not exclusively residential areas), will be Part Night switched.

1.1 Street lighting burning hours for Part Night lighting will be:

- Dusk (35 lux) until 00:00
- 06:00 until Dawn (18 lux)

Street lighting will not operate between 00:00 and 06:00.

1.2 However it is not appropriate to implement Part Night lighting in certain situations; therefore, lights will remain switched on all night where the location:

- Has a significant record of night-time road traffic accidents
- Has a significant record of night-time crime
- Has a care/nursing home, sheltered housing, or warden controlled accommodation
- Has an operational emergency service facility
- Has safety road features, such as traffic calming, speed humps, zebra crossings etc., as originally installed by the county council
- Is the centre of a major urban area or larger town as referred to in LTP4 with a night time economy
- Has permanent local authority or police CCTV surveillance equipment
- Is a footpath and/or cycleway that links to two separate roads that are lit all night
- Has a physically accessible AED defibrillator which has been notified to the Highway Authority
- Has been subject to third party Part Night reversal in accordance with LCC Street Lighting Policy Annex 1 Protocol for Reversal of Part Night Lighting

**ANNEX 3**

**LINCOLNSHIRE COUNTY COUNCIL**

**STREET LIGHTING DESIGN GUIDE**

Version 2.0

January 2019

Street Lighting

Highways & Transportation

Environment & Economy Directorate



## Issue and Revisions Record

<b>Revision</b>	<b>Date</b>	<b>Originator</b>	<b>Approved by</b>	<b>Details of Revision</b>
1.0	April 2018	N Poundall	P Cant	First Edition
2.0	January 2019	N Poundall	P Cant	Minor amendments in accordance with Street Lighting Policy review

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## Introduction

This is the first edition of the Lincolnshire County Council Street Lighting Design Guide. The purpose of this document is to provide guidance to street lighting designers, both internal and external, on the requirements and specification for street lighting installations within Lincolnshire.

It is intended that this document is read in conjunction with a number of documents (where applicable) consisting of, but not limited to:

- Lincolnshire County Council Street Lighting Policy
- BS5489-1:2013 Code of practice for the design of road lighting
- BS EN 13201-2:2015 Road Lighting Part 2: Performance Requirements
- Institution of Lighting Professionals Guidance Notes
- Institution of Lighting Professionals Professional Lighting Guides
- Institution of Lighting Professionals Technical Reports
- BS 7671:2008 (incorporating Amendment 3: 2015) Requirements for Electrical Installations IET Wiring Regulations Seventeenth Edition
- ILP Guidance Notes for the Reduction of Obtrusive Light

The above list of documents is not exhaustive and other documents may be relevant to the design of a specific street lighting scheme.

## **1. Design Guidance**

### **1.1 Preliminary Tasks**

The street lighting designer should receive a design brief from the client which clearly outlines the client's requirements for the scheme. If the brief is not clear, the designer should contact the client to discuss their requirements in further detail until both parties are satisfied.

Dependant on the nature and extents of the scheme, it may be necessary to consult with interested parties and stakeholders. These could include:

- Local residents and businesses
- Local councillors
- Utility companies
- Network Rail
- Highways officers
- Emergency services

Where the proposed street lighting scheme will affect existing street lighting equipment, the designer must visit the site to complete a site survey, and record all available information on the existing street lighting equipment : location; column type and condition; lantern types and condition; electricity supply details; illuminated signage equipment. The street lighting inventory may be able to assist with ascertaining certain information, although verification should always be completed on site.

Whilst on site, a risk assessment must be completed to capture the specific risks of the particular site. This will be required in order to complete a designer's risk assessment and hazard analysis (a requirement of CDM Regulations).

Information on hazards and constraints such as overhead lines, trees, hedges, bushes, driveways, accesses, bedroom windows and utilities should also be captured whilst on site.

Further to the information collected from the site survey, some further data collection may be required such as traffic flows and volume, crime statistics and accident statistics to support the lighting category selection process.

### **1.2 Lighting Category Selection**

The lighting category selection process should be undertaken in conjunction with BS 5489-1:2013 Annex A Selection of Lighting Classes, with the performance requirements for traffic routes as per BS EN 13201-2:2015 Tables 1 & 2, and performance requirements for subsidiary roads as per BS 5489-1:2013 Table A.7.

The chosen lighting class or classes (if the scheme covers an area with varying usage characteristics), should be documented and recorded in the scheme file (electronically or

otherwise) using the Lighting Category Selection Form (Appendix A - available on request from Lincolnshire County Council Street Lighting).

### **1.3 Application of Adaptive Lighting Techniques**

It is the intention of Lincolnshire County Council to provide the right level of light, in the right place, at the right time by applying appropriate and carefully selected adaptive lighting techniques. This will ensure the Council continue to deliver an efficient and effective street lighting service which provides best value to the residents of Lincolnshire.

Lighting in Lincolnshire is expected to be part of a sustainable network by managing energy consumption to a minimum, including applying the hierarchy described in the Street Lighting policy if lighting is required: part night lighting, dimmed lighting and as a last resort all-night full lighting.

#### **1.3.1 Part Night Lighting**

Street lighting in many areas of the County (generally but not exclusively residential areas), will be Part Night switched. Street lighting burning hours for Part Night lighting will be:

- Dusk (35 lux) until 00:00
- 06:00 until Dawn (18 lux)

Street lighting will not operate between 00:00 and 06:00.

However it is not appropriate to implement Part Night lighting in certain situations; therefore, lights will remain switched on all night where the location:

- Has a significant record of night-time road traffic accidents
- Has a significant record of night-time crime
- Has a care/nursing home, sheltered housing, or warden controlled accommodation
- Has an operational emergency service facility
- Has safety road features, such as traffic calming, speed humps, zebra crossings etc., as originally installed by the county council
- Is the centre of a major urban area or larger town as referred to in LTP4 with a night time economy
- Has permanent local authority or police CCTV surveillance equipment
- Is a footpath and/or cycleway that links to two separate roads that are lit all night
- Has a physically accessible AED defibrillator which has been notified to the Highway Authority
- Has been subject to third party Part Night reversal in accordance with LCC Street Lighting Policy Annex 1 Protocol for Reversal of Part Night Lighting

### 1.3.2 Dimming

Street lighting not in an area selected as suitable for Part Night (generally but not exclusively traffic routes, major urban routes, town centres and public amenity areas - usually mounted on lighting columns which are 8 metres or greater in height), shall remain lit all night and will be dimmed during the hours of operation, if appropriate.

The decision on whether it is suitable to dim the lighting on a particular site should be made in conjunction with BS 5489-1:2013 Section 4.4.4 and ILP TR 27 Code of Practice for Variable Lighting Levels for Highways.

Where possible, it is desirable for the dimmed street lighting to comply with one of the Lincolnshire County Council approved dimming regimes, as below:

- 20:00 to 00:00 dimmed to 75% output then 00:00 to 06:00 dimmed to 50% output
- 22:00 to 06:00 dimmed to 75% output
- 00:00 to 06:00 dimmed to 75% output

Should one of the above dim regimes not be suitable for a particular street lighting scheme, contact Lincolnshire County Council Street Lighting to agree a suitable dimming regime.

### 1.4 Lighting Column Layouts and Setbacks

The general siting of lighting columns should be treated on an individual scheme basis and completed in conjunction with:

- BS 5489-1:2013 Section 4.3.3
- Professional Lighting Guide PLG 02 The Application of Conflict Areas on the Highway Annex A: 'Typical column and lantern arrangements for conflict areas'

Table 1: Recommended minimum clearances from edge of carriageway to face of lighting column, derived from BS 5489-1:2013 Section 4.3.3.3

DESIGN SPEED km/h	HORIZONTAL CLEARANCE m
≤50	0.8
80	1.0
100	1.5
120	1.5

Table 1

## 1.5 Lighting Design Calculations

The preferred applications for completing street lighting designs are the Lighting Reality software packages; Reality Roadway and Reality Outdoor. Other lighting design software packages may be used for street lighting designs.

Every street lighting design should have a straight road calculation in illuminance or luminance (Reality Roadway), or an area calculation in illuminance (Reality Outdoor). Ideally each street lighting design will have both a straight road calculation and an area calculation.

As a minimum the lighting design calculation report should be made available to Lincolnshire County Council and stored within the particular scheme folder electronically; ideally the lighting design files will be made available also.

Further guidance and advice on using the Lighting Reality design packages can be found by:

- Attending dedicated Lighting Reality training courses
- Liaising with the Lincolnshire County Council Lighting Reality champion
- Watching 'Nick Smith Associates Training' videos on YouTube

Table 2: Typical mounting height and LED lantern wattage combinations for various street lighting classes.

BS CATEGORY	MOUNTING HEIGHT	LED WATTAGE	SUGGESTED LANTERN
M3 or ME3b	10 or 12m	86 to 131W	TRT Aspect 3 or Philips Luma 1 / Mini Luma
M4 or ME4	8 or 10m	66 to 95W	TRT Aspect 2 / 3 or Philips Mini Luma
M5 or ME5	8 or 10m	42 to 66W	TRT Aspect 2 or Philips Mini Luma
P1	8 to 12m	86 to 131W	TRT Aspect 3 or Philips Luma 1 / Mini Luma
P2	8 or 10m	55 to 95W	TRT Aspect 2 / 3 or Philips Mini Luma
P3	6 or 8m	35 to 66W	TRT Aspect 2 or Philips Mini Luma
P4	6 or 8m	19 to 35W	TRT Aspect Eco 1 or Philips Micro Luma
P5	5 or 6m	10 to 19W	TRT Aspect Eco 1 or Philips Micro Luma

Table 2

The purpose of Table 2 is to provide general guidance for a designer with regards to mounting height and LED wattage combinations required to achieve a particular lighting class. The

suggested combinations in Table 2 are not exhaustive and other combinations may be acceptable.

### **1.6 Energy Assessment**

In accordance with the county council's sustainability programme to reduce carbon emissions, street lighting replacement schemes shall be designed with a view to optimise the reduction in energy in comparison to the original installation.

For all street lighting schemes, an Energy Assessment Pro-forma (Appendix B - available on request from Lincolnshire County Council Street Lighting) should be completed and submitted to Lincolnshire County Council.

### **1.7 Electricity Supply Details**

The electricity supply for street lighting columns shall comprise of single phase 230V 50Hz Distribution Network Operator (DNO) supplies into lighting columns or feeder pillars (where applicable). The DNOs within Lincolnshire are Western Power Distribution and Northern Powergrid.

Where Independent Distribution Network Operator (IDNO) apparatus exists, contact Lincolnshire County Council Street Lighting.

It is preferred that equipment more vulnerable to damage such as illuminated traffic signs, bollards, beacon posts and other items on traffic islands will be fed via a private cable network. Where this is applicable, feeder pillars and suitable lighting columns shall provide a private 230V single phase fuse and switched outgoing cable network to the relevant equipment. Cable and duct specification is to be as per the Model Contract Document.

Three Phase supplies to feeder pillars may be required in certain circumstances; to be agreed with Lincolnshire County Council Street Lighting on an individual scheme basis.

## **2. Equipment Specification and Selection**

This section of the Street Lighting Design Guide aims to provide the designer with an overview of LCC's equipment specification.

### **2.1 Light Source**

To comply with Lincolnshire County Council's Sustainability Programme, new lighting installations should be designed with a view to optimise the reduction in energy in comparison to the original installation. In order to achieve this, the preferred light source for new street lighting installations shall be LED.

The lumen depreciation of the LEDs at 100,000 hours should not be greater than 20% ( $\geq$ LM80 @ 100,000 hours).

The colour temperature for LEDs installed on traffic routes and within town centres shall be a maximum of 4000K (Neutral White).

The colour temperature for LEDs installed in residential areas, on footpaths, cyclepaths and within areas where the surrounding environment could benefit from a warmer colour temperature shall be less than or equal to 3000K (Warm White).

The ambient operating temperature of the LEDs should be a minimum of -20°C and a maximum of +55°C.

The output of the LEDs should be commensurate with the street lighting category selection of the design area.

## **2.2 Luminaires**

The luminaires should be constructed using high pressure die cast aluminium and provide an overall IP rating to a minimum of IP65.

The LEDs in the luminaire should be driven by either a Constant Current supply or Constant Light Output DALI enabled driver. Any proposed luminaire must have an available UMSUG code.

LED drivers should be electronic type (DALI enabled), with a minimum rating of IP65, manufactured by Philips or Osram.

The luminaire should operate at 220-240V / 50-60 Hertz.

Luminaires should allow for 60-76mm post top installation and 32-60mm side entry installation.

Luminaires should have the ability to provide mounting arrangements of -10° to +10° inclination.

Designs should incorporate lanterns at an inclination angle of zero degrees where possible, in order to reduce the effects of obtrusive light. Post top lanterns should sit at zero degrees and lanterns on outreach brackets should be tilted to a minus degree which negates the bracket incline and returns the lantern to zero degrees.

Luminaires shall typically be installed with a 7-pin NEMA socket. Heritage and contemporary luminaires, or luminaires installed in conservation areas, will normally require a 20mm diameter fixing hole to accept a miniature photocell. Luminaires installed as part of a group switched system do not need a NEMA socket or fixing hole, unless specified with a shorting cell.

Luminaires to be installed in residential areas, footpaths and cycle paths shall have a pre-programmed LCC Aggressive Dim Regime (20:00 to 00:00 dimmed to 75% output then 00:00 to 06:00 dimmed to 50% output) overridden by an internal wiring link.

### **2.3 Switching Controls**

All luminaires shall be fitted with individual Photo-Electric Control Units (PECUs), except for luminaires installed as part of a group switched system where switching is provided from a dedicated PECU.

PECU switching for All Night lighting shall be 35 lux on / 18 lux off (ratio of 1:0.5).

PECU switching for Part Night lighting shall be 35 lux on / 00:00 off / 06:00 on / 18 lux off.

Luminaires with a 7-pin NEMA socket shall be typically fitted with a Westire 8480 or Lucy Zodion ZCell; both suitable for All Night and Part Night operation.

Heritage or contemporary luminaires using miniature cells shall be typically fitted with a Lucy Zodion SS12 HT where All Night lighting is in operation, or a Lucy Zodion SS19 where Part Night lighting is in operation.

Miniature photocells for illuminated signs shall be Lucy Zodion SS12 with Infra Red type specified for bollards where applicable.

### **2.4 Lighting Columns and Brackets**

All lighting columns and brackets shall be supplied in accordance with the relevant requirements of BS EN 40.

Lighting columns and brackets selected for each scheme/area shall be the same or similar to existing equipment. This will typically be galvanised steel or aluminium, except for passively safe equipment (Section 2.5), conservation areas (Section 2.6) and some town centres (Section 2.7).

Lighting columns shall typically be designed to accept post top mounting of the luminaire. Where brackets are required, bracket arms shall be designed so that when assembled the arm and spigot shall be at an angle as shown within the works information.

Raise and lower lighting columns shall be as shown on LCC Standard Detail SD-14-2B and with galvanised finish to BS EN ISO 1461.

Lighting column root protection shall be to G1a (LCC) specification.

Internal column wiring shall conform to the requirements of BS 7671 and be as per Lincolnshire County Council Standard Detail SD-14-4 Series for electrical termination types.

Lighting column foundations are to be as per LCC SD-14-2A. In some instances an alternative lighting column foundation may be proposed, such as a duct socket arrangement or a retention socket. This must be agreed with Lincolnshire County Council Street Lighting prior to design submission.

Lighting columns are to be provided with unique identification numbers as per the works information.

Steel lighting columns shall be designed to accommodate the attachment of non-illuminated sign plates with a total area not exceeding 0.3m<sup>2</sup>. Lighting columns which are known to require additional attachments in the future such as larger sign plates, flower baskets, banners or seasonal decorations, must be designed and manufactured to safely accommodate the additional load. The applicant must follow the Lincolnshire County Council HAT 64 Attachments process (available on request). Written confirmation and calculations from the column manufacturer must be obtained by Lincolnshire County Council.

Table 3: Schedule of Road Lighting Column Requirements – derived from BS EN 40-2:

COLUMN HEIGHT	PLANTING DEPTH (BS EN 40-2 4.5)	MINIMUM DOOR OPENING (BS EN 40-2 4.3)		COLUMN SHAFT DIAMETER
		HEIGHT	WIDTH	
5m	800mm	500mm	100mm	89mm
6m	1000mm	500mm	100mm	89mm
8m	1200mm	600mm	115mm	114mm
10m	1500mm	600mm	115mm	140mm
12m	1700mm	600mm	115mm	140mm

Table 3

For information related to the design and installation of high masts, contact Lincolnshire County Council Street Lighting.

## 2.5 Passively Safe Lighting Columns

A passively safe lighting column is designed to yield when it is struck by an errant vehicle thus making the collision less severe.

The decision to implement passively safe lighting columns should be undertaken in conjunction with the following two documents:

- BS EN 12767:2007 Passive safety of support structures for road equipment. Requirements, classification and test methods
- ILP Technical Report 30 Passive Safety: Guidance on the Implementation of Passively Safe Lighting Columns and Signposts

The final decision should be recorded on a Passive Safety Requirements Form (Appendix C - available on request from Lincolnshire County Council Street Lighting).

Passively safe columns can also be used in individual circumstances where a detailed risk assessment has taken place and there is an increased likelihood that the column may be struck by an errant vehicle. A column used as Passively Safe should have the relevant electrical disconnection system or private cable network design to allow 0.4 second electrical disconnection.

## **2.6 Conservation Areas**

Street lighting equipment selected for conservation areas must be agreed with Lincolnshire County Council Street Lighting.

Preference is for the installation of standard equipment with a variance of colour and /or column profile to allow for a tapered column where appropriate.

Consideration will also be given to the use of Aluminium columns where appropriate.

Decorative embellishments, bracketry and heritage style lanterns are not encouraged due to increased maintenance and poorer lantern performance. Should the surrounding environment and/or other influences or constraints lead towards such equipment, the Client must obtain agreement from Lincolnshire County Council and agree to pay a suitable commuted sum.

Painted lighting columns shall comply with G2a specification as per Series 1900 from the Specification for Highway Works, with a suitable RAL number to be agreed with Lincolnshire County Council Street Lighting.

## **2.7 City and Town Centres**

Whilst some city and town centres may be within conservation areas, contemporary or modern equipment could be more appropriate, depending on the nature of the area or whether the street lighting scheme is part of a wider regeneration scheme.

It is important to assess existing equipment in the area and continue with this approach if appropriate. It is also important to check whether there is a wider strategy towards the replacement of street lighting equipment within the city or town centre.

In order to reduce the presence of street furniture, it could be advantageous to attach lights to adjacent buildings. This would require a signed agreement between LCC and the building owner.

The specification of street lighting in town centres or public amenity areas must be agreed with Lincolnshire County Council Street Lighting prior to design submission. If not, this may prevent the units being adopted by LCC at a later date.

### **3. On Site Hazards and Constraints**

#### **3.1 Overhead Lines**

Lighting columns should be sited away from overhead lines (power or BT) wherever possible. However due to the nature and characteristics of certain sites this is not always possible.

The siting of lighting columns within the vicinity of overhead power lines should be undertaken in conjunction with:

- HSE Guidance Note GS6 Avoiding danger from overhead power lines
- Engineering Recommendation G39/1 Model Code of Practice Covering Electrical Safety in the Planning, Installation, Commissioning and Maintenance of Public Lighting and Other Street Furniture

Where high voltage overhead power lines are present on site, the designer must liaise with the DNO immediately and contact Lincolnshire County Council Street Lighting.

Where low voltage overhead power lines are present, and in addition to maintaining the clearances documented in G39/1, the designer may wish to consider:

- Siting lighting columns on the opposite side of the road to the overhead power lines (if possible)
- Siting lighting columns at the front of the footway (if possible – giving consideration to vulnerability to traffic collision and also hazard to footway users)
- Designing the scheme using lighting columns with a reduced mounting height
- Specifying raise and lower lighting columns

Where overhead BT lines are present, lighting columns should be sited to avoid conflict with the apparatus. There should be a minimum clearance of at least 1 metre between lighting columns and wooden poles, and ideally a minimum clearance of at least 0.5 metres between lighting columns/lanterns and the BT lines.

#### **3.2 Trees**

Trees adjacent to lighting columns can present a safety issue in terms of reducing the light reaching the footway and/or road but also prevent engineers from maintaining the light in the future. The designer may wish to consider:

- Utilising available locations away from trees and reconfiguring the design accordingly
- Siting lighting columns at the mid point between trees (if possible)
- Siting lighting columns at the front of the footway (if possible)
- Designing the scheme using lighting columns with a reduced mounting height
- Specifying lighting columns with outreach brackets

### **3.3 Bushes and Hedges**

Bushes and hedges can prevent access to the lighting column door and siting lighting columns adjacent to bushes and hedges should be avoided wherever possible. If this cannot be avoided, the designer may wish to consider having the lighting column installed with the column door facing the carriageway and not facing the direction of oncoming traffic (standard practice), providing an onsite risk assessment permits this safe to do so.

### **3.4 Driveways and Accesses**

Columns shall not be installed within dropped kerb areas and shall have a minimum clearance of 1.5m from driveways and accesses. Should this not be possible, Lincolnshire County Council Street Lighting and the affected property owner may agree an alternative location on site.

### **3.5 Bedroom Windows**

Wherever possible, lighting columns should be sited away from bedroom windows. The ideal location for siting lighting columns is the boundary lines of properties. However this is not always possible due to the locations of trees, driveways, accesses, utility apparatus, etc.

The designer may wish to complete a lighting design calculation using a vertical grid to measure the illuminance on the facade of the property. See ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2011 for further advice and guidance.

The siting of lighting columns within the vicinity of bedroom windows must be undertaken on an individual site basis with all other on site hazards and constraints taken into account and the respective impact of each of these on the street lighting scheme.

The use of internal louvres within the luminaire, or rear shields, may be used to reduce the impact of light intrusion. Front light shields to reduce perceived intrusion to opposite properties shall not be permitted. It may be permissible to alter the inclination of the lantern accordingly, to avoid light intrusion.

### **3.6 Existing Utilities**

The presence of existing underground utilities on site can present difficulties in siting lighting columns in desired locations. NRSWA records provide an initial indication of the presence of utilities but often the exact location of existing utility apparatus is only known once excavation works begin. Site surveys can provide initial indications of utility apparatus locations (markers, chamber covers, trenching, etc.).

Should existing utility apparatus prevent the siting of a lighting column in a desired location, a suitable alternative location away from the utility apparatus should be agreed on site, which may lead to a reconfiguration of the lighting design.

If alternative locations are not suitable, the designer may wish to consider:

- Installing a retention socket to the manufacturer's recommendations
- Installing a crank root lighting column (must be clearly marked on the column and the inventory)

Lincolnshire County Council Street Lighting must be contacted prior to the installation of a retention socket or crank root lighting column.

**The above list is not exhaustive.** Other hazards and constraints may be encountered on site that will require a design solution to mitigate the risks presented by the particular hazard or constraint. All lighting columns and wide base posts are to be installed within the Highway, unless a Wayleave agreement is in place with the landowner.

#### **4. New Development Roads**

It is currently a requirement of Lincolnshire County Council that all roads proposed to be adopted are provided with street lighting to Lincolnshire County Council specification. In exceptional circumstances, such as rural locations with no street lighting present in the surrounding area, it may be appropriate for the authority to adopt a road without street lighting. In this instance, seek advice from Lincolnshire County Council Street Lighting.

##### **4.1 Approval**

Before construction commences developers shall submit their proposals for street lighting, to the Highway and Flood Authority for approval. The lighting system (including the design and components) shall be in accordance with the requirements of this document.

The layout of a proposed street lighting scheme, including any adjoining existing lighting and illuminated signs, installation shall be incorporated into the drawings.

The developer's proposals shall include:

- Details of existing street lighting equipment, services, lighting cables or illuminated signs that would need re-siting or protection due to the development with electrical supply details.
- Proposals to modify lighting systems on existing highways which give access to the proposed development. The developer may be required to enter into an Agreement and Bond in respect of any such work. Specific advice should be obtained from the Highway and Flood Authority including the possibility of a S278 Agreement on the existing highway with regards to the access.

Any proposed tree, hedge or bush shall be located no closer than 5 metres from any street light or illuminated sign and no closer than 2 metres from any feeder pillar. The designer must obtain the developer's landscaping proposals prior to commencing the street lighting design.

In certain circumstances there may be no other option than to site lighting columns within an area not initially proposed for adoption by the Highway and Flood Authority. In these circumstances it may be necessary to include an adoptable build out. The specification of the build out is to be agreed with the Highway and Flood Authority.

Lighting columns installed within an area not to be offered for adoption as part of the Section 38 agreement shall remain private and not adopted by the Highway and Flood Authority. Future ownership details of these lighting columns must be submitted by the developer.

#### **4.2 Electricity Supply Details**

The developer shall be responsible for provision of electricity services to the lighting units or supply pillars other than equipment as detailed in Section 1.7. All services shall be laid underground.

The Distribution Network Operator (DNO) or Independent Distribution Network Operator (IDNO) shall provide electricity services to each lighting unit. The developer may be required to provide black service ducts for DNO/IDNO services cables. Such ducts shall be installed to the relevant DNO/IDNO specification.

Where an IDNO has been used, the cut out must be clearly and indelibly marked with the IDNO name and contact number.

In exceptional circumstances the Highway and Flood Authority may agree to the installation of a private service cable to supply street lighting units. Details are available from the Highway and Flood Authority upon request.

#### **4.3 Design Standards**

Street lighting designs shall conform to BS 5489-1:2013 or any subsequent superseding C.O.P and BS EN 13201-Parts 2, 3 and 4 together with regional requirements of the Highway and Flood Authority for lighting levels and specification for materials and installation works.

#### **4.4 Equipment Specification**

For details on Lincolnshire County Council street lighting equipment specification, please see Section 2 Equipment Specification and Selection.

Decorative and/or painted street lighting equipment may only be accepted if the proposed development meets one of the following criteria:

- The installation of decorative or painted street lighting equipment forms part of the planning conditions
- The proposed development is situated within a conservation area (see Section 2.6)
- Other street lighting equipment within the surrounding area is of a similar specification

A commuted sum will be required if it is agreed between the developer and the Highways and Flood Authority for the installation of decorative and/or painted equipment (See Section 4.7).

#### **4.5 Installation**

The methods used for installation and erection of highway lighting equipment shall be in compliance with the Code of Practice prepared by the Association of Street Lighting Erection Contractors.

#### **4.6 Completion and Commissioning Maintenance**

The developer shall inform the Highway and Flood Authority when each lighting unit is commissioned. The developer shall also provide Electrical Test Certificate for each lighting unit. The complete installation details including electrical test certificates shall be handed to the Highway and Flood Authority prior to adoption of the relevant sections of highway.

Where the Developer has entered into an Agreement under Section 38 of the Highways Act 1980, maintenance of the highway lighting installation will be governed by the Agreement, which provides for the Highway and Flood Authority developer paying energy charges from commissioning of a properly provided installation and for the installation to be adopted for operation and maintenance by the Highway and Flood Authority at the same time as all the other works in the development. Upon adoption the payment of the energy charges will transfer to the Highway and Flood Authority.

Where there is no Agreement under Section 38 of the Highways Act 1980 the Highway and Flood Authority will not maintain the lighting units until the highway has been inspected, adopted and/or has completed its maintenance period.

#### **4.7 Commuted Sums**

In certain circumstances the developer may be required to pay to the Highway and Flood Authority a commuted sum. Commuted sums are calculated to compensate the Highway and Flood Authority for additional maintenance costs that result from a developer's specification. Further details are given in Clause 1.1.23 of Lincolnshire County Council's Development Road & Sustainable Drainage Specification & Construction and calculations will be completed in accordance with HAT 40.

## **5. Completion of Works**

### **5.1 Inspection**

Upon completion of the construction period, a street lighting inspection is required to assess the quality of the installation and ensure compliance with Lincolnshire County Council specification. The main aspects to consider when carrying out an inspection are:

- Ensure redundant equipment has been disconnected and removed
- Ensure proposed equipment has been installed as per the works information and issued Construction drawing (site clearance, location of equipment, equipment specification)
- Visual check of each lighting column (root protection, foundation, footpath re-instatements)
- Check of electrical equipment in base compartment (grease on the column door lock, supply type, termination type, internal wiring specification)
- Ensure the lantern strikes up
- On new development roads, check that trees, hedges and bushes have not been planted within the vicinity of street lighting equipment

### **5.2 Electrical Test Certificates**

The contractor or developer must supply fully completed electrical test certificates including measured earth fault loop impedance readings to BS 7671 for all associated equipment at the time of installation. Declared values are not permitted.

Lincolnshire County Council Street Lighting can provide a template electrical test certificate if required.

### **5.3 As-Built Details**

In accordance with the CDM regulations, the Principal Designer has a duty to produce a Health and Safety File. This must include accurate details of street lighting apparatus and the as-built positions of cables.

As-built drawings shall be produced by the contractor and submitted to Lincolnshire County Council Street Lighting in electronic format.

### **5.4 Asset Inventory**

Upon receipt of the As-Built information, the Lincolnshire County Council Street Lighting inventory will require an update to reflect the changes made by the completed street lighting scheme.

A link should be made electronically between each asset affected by the street lighting scheme and the location of the As-Built drawing.

## **LCC STREET LIGHTING POLICY – ANNEX 4**

### **PROTOCOL FOR REMOVAL OF SWITCH OFFS**

This protocol is concerned with sections of street lighting which have been switched off for over 12 months in line with hierarchy defined in section 2.1 A of the Street Lighting Policy.

The removal of 'tail end' lights (i.e.: a small number of lights switched at the end or beginning of a larger section of lighting which did not merit initial contact with Parish) will be undertaken separately outside of this protocol.

#### **Stage 1 – Analysis**

- 1.1 Accident information requested from LRSP for post switch off period.
  - Comparison of post and pre switch off accident data
- 1.2 Examine other relevant Information received during post switch off period
  - Communications or incidents regarding the section of lighting post switch off should have been filed within the relevant switch off Folder on IMP.  
Interrogation of the folder.

**If no increases in accident data during night time hours from LRSP data or any other incident meriting further examination – move onto Stage 2.**

#### **Stage 2 - Survey**

- 2.1 Survey of lighting to identify electrical supply details and consequence of removal on electrical wiring system for the remaining lighting.
- 2.2 Survey of illuminated and non-illuminated signage within and adjacent to the section of lighting to be removed.
  - Signs and lines specialist to advise on 2.2
- 2.3 Speed Limit Review – implication of removal of a section of lighting on the speed limit signing requirements
  - Signs and lines specialist to advise on 2.3

### **Stage 3 – Decision**

3.1 Decision on removal of section of lighting to be discussed and recorded on pro forma.

- Decision to examine cost implications of removal and impact on the Network.

**If decision is taken to remove the section of lighting – move onto Stage 4**

### **Stage 4 – Communication**

4.1 Initial pre switch off correspondence with third parties to be examined. Communication with third parties regarding the removal of the lighting to be limited to:

- Informing third parties that the decision has been taken to remove the lighting and providing approximate programme.
- Addressing any relevant comments/issues raised in the initial pre switch off correspondence which have not previously been addressed.

### **Stage 5 – Implementation**

5.1 LCC Street Lighting team issue an order through the term maintenance contractor for the lighting to be removed.

5.2 Upon removal the assets are removed from the street lighting asset management inventory.

# **LCC STREET LIGHTING POLICY – ANNEX 5**

## **ATTACHMENTS TO STREET LIGHTING ASSETS**

### **1. Introduction**

- 1.1 Requests for the installation of items such as festive decorations, communications/public address equipment, public art installations and flower baskets are received regularly. In the interest of safety and efficiency and to defend against the possibility of compensation claims made against the authority such installations need to be regulated and licenced. Attachments may be temporary, seasonal or permanent.
- 1.2 This advice note details the procedure for dealing with requests for the installation of such attachments and introduces a licensing system.

### **2. Definitions**

- 2.1 **Asset:** An item of street furniture owned by the Highway Authority.
- 2.2 **Organisation:** A responsible body that operates in perpetuity. Such organisations are Parish/District/Town/City/Borough/Parochial Church Councils, Public Utility Companies and Registered Charities.
- 2.3 **Insurance:** Contract for securing compensation for loss, damage or injury on payment of a pre-determined premium.
- 2.4 **Indemnity:** Security against damage or loss; exemption from penalty or compensation for damage.
- 2.5 **Applicant:** The organisation that applies for consent.
- 2.6 **The Officer:** The responsible local government officer or agent representing the Highway Authority.
- 2.7 **Highway Authority:** Lincolnshire County Council in their capacity under the Highways Act 1980.
- 2.8 **Attachment:** Items that may be erected or installed on a temporary, seasonal or permanent basis on any highway asset.
- 2.9 **Licensee:** The Applicant having been granted privileges by licence.

### 3. Scope

- 3.1 The content of this guidance note should be applied where an attachment has to be considered in conjunction with street lighting and highway power supplies
- 3.2 This guidance is not intended to cover apparatus and plant under the ownership of statutory undertakers or independent services providers for which there are separate provisions.
- 3.3 This guidance note is intended to supplement HAT 35 (Erection of Structures in the Highway) and not amend or replace it.
- 3.4 This HAT does not cover the attachment of posters for the purposes of parliamentary and local government elections, for which a national [Code of Practice](#) exists.

### 4. General

- 4.1 Where applications are received for Attachments the Highway Authority may grant a licence in accordance with Section 178 of the Highways Act.
- 4.2 Permission shall not be granted in any of the following circumstances:
  - Attachments erected or installed without the prior consent of the Highway Authority.
  - Attachments to concrete or cast iron street lighting columns; however the attachment of flower arrangements to heritage style street lighting assets in conservation/heritage areas may be considered.
  - Attachments to Highways Structures which cause a potential hazard to pedestrians or road users or a potential threat to the integrity or safety of the structure.
  - Dog waste bins to any street lighting furniture.
  - Where the Attachment relates to or is part of any form of advertising.
  - Attachments that obstruct or distract from a traffic signal or highway sign.
  - Attachments on traffic signal poles or equipment, other than regulatory signs or signs erected by the Lincolnshire Road Safety Partnership advising on the use of controlled pedestrian crossings.

## 5. Preliminary Enquiry

- 5.1 The Applicant shall submit a written request to the Highway Authority seeking permission to install Attachments giving at least ten weeks notice before the proposed erection date to allow sufficient time for the enquiry to be assessed.
- 5.2 Applicant to provide as much detail as possible of equipment to be attached - including design/appearance, weight and windage area, location details and whether they require electrical connection.
- 5.3 The preliminary enquiry will be assessed by an Officer who will advise on refusal or progression to the Application stage. If progression, the applicant will be sent the relevant application form.

## 6. Application

- 6.1 All applications will be considered under two separate processes:-

- a) Applications for attachments requiring no electrical connection.

Will be assessed for suitability; a licence will be issued where applicable and where no concerns are raised. Any locations regarded as unsuitable will be refused with reasons for refusal provided. **A non-refundable charge of £30 per attachment/location will be required to cover administration of all non-electrical connection licence applications. Should a location be refused, in many cases an alternative location will be provided/negotiated.**

- b) Applications for attachments requiring electrical connection.

Will be assessed for suitability; a licence will be issued where applicable and where no concerns are raised. Any locations regarded as unsuitable will be refused with reasons for refusal provided. **An initial non-refundable charge of £200 per attachment/location will be required to cover initial administration of all electrical connection licence applications. Should a location be refused on the grounds that the requested lighting column is deemed unsuitable for attachment, in many cases an alternative location will be provided/negotiated.**

Note that all applications requiring an electrical supply will require a site visit from an Officer; which justifies a higher application charge.

The Applicant will be liable for any additional time spent by the Officer on the assessment; including supervision, post installation inspection and may include additional site visit's particularly if equipment specification changes or if an alternative location is required. In this case an Officer will provide a quotation of the expected additional cost and will require written acceptance from the Applicant that they will meet these costs prior to continuing with the application, irrespective of the outcome of the Assessment. Applicants will be

invoiced on receipt of receiving written acceptance of the quotation; a purchase order is preferable.

Should it appear that further work is required over and above the quoted cost the Officer shall notify the Applicant; and include the reason for the increase. Written acceptance from the Applicant that they will meet these costs is required prior to undertaking further work. Applicants will be invoiced on receipt of receiving written acceptance of the quotation for additional costs; a purchase order is preferable.

6.2 During the application process and prior to a license being granted the Applicant must provide the following information upon request:

- Independent Structural Report undertaken by a specialised non-destructive testing company. This report must detail the suitability of the Highway Asset for the proposed attachment and provide the proposed re-test period after which the Applicant will be liable to have the test repeated if the Attachment is still in place.  
Note: - Lincolnshire Street Lighting Team cannot carry out structural testing but can provide details of suitable testing companies upon request.
- Name and address of proposed contractor for the attachment work to be submitted along with evidence of competence (HAUC/CSCS/HEMSA/G39) and RAMS (Risk Assessments/Method Statements) to cover the work. Contractor must be approved to work on the Highway and/or Highway Power Supplies where electrical attachment is required.
- Details of electrical requirements if applicable including proof of an arrangement between the Applicant and their Electricity Supplier to pay for the electrical energy used.
- Hours of operation
- Emergency contact details
- Installation and removal dates including proposed Traffic Management arrangements, road space booking etc.
- Details of proposed fixings.

## **7. Electricity Supplies for Attachments**

- 7.1 It should be noted that for technical reasons, it is not always possible to provide new electrical supplies from existing powered equipment. This may only become apparent following a site visit and internal inspection; hence the reason for a higher application fee for applications requiring electrical connection.
- 7.2 Applicants should never assume that an existing lighting column or street lighting asset is suitable for an attachment. Early contact with Lincolnshire Street Lighting Team is advised so that officers can accommodate the request around existing work programmes.
- 7.3 In cases where an existing Lighting Column or Street Lighting Asset is deemed unsuitable for attachment by Lincolnshire County Council Street Lighting Team this decision is final. It is usually possible for an alternation solution to be negotiated.
- 7.4 The Applicant will be responsible for arrangements with the Electricity Network Operator for electricity supplies and the payment of connection charges and use of electrical energy, and other services.
- 7.5 Subject to the above and a successful Application, electricity supplies for attachments to the Street Lighting furniture shall be permitted upon installation of the correct internal wiring termination arrangement as requested by the Officer, this will be subject to inspection; hence the reason for a higher application fee for applications requiring electrical connection.
- 7.6 The licensee shall provide the Authority with a copy of an electrical test certificate for each attachment to street lighting furniture which has resulted in an internal electrical supply being installed. This must certify that the installation has been tested and meets the requirements of BS7671 (The Requirements for Electrical Installations).
- 7.7 Electricity supplies which are required for equipment not to be attached to Street Lighting furniture are not covered in this document. Supplies for such equipment requested by third parties shall not be provided from Street Lighting furniture. In these cases Applicants should plan to install a permanent supply in a purpose made feeder pillar that will be maintained by the licensee. Agreements on location, specification and payment of energy costs should be sought outside of this document.
- 7.8 The Highway Authority has a duty to disconnect and/or remove hazardous installations and recharge costs involved, from the applicant, including emergency call out charges if this is applicable.

## **8. Attachment of communications equipment**

- 8.1 Requests for the attachment of communication equipment will be considered subject to the following conditions:
- Applications will be treated on a first come, first served basis. Secondary applications for the same lighting column will not be considered.
  - The Highway Authority will not be held liable for any claims regarding loss of service or the like, however caused. This could include, but not be limited to loss of electricity supply, knockdown or removal of the supporting street furniture for any reason whatsoever.
  - An appropriate public benefit must be gained from the installation for the duration of the licence in order for the application to be considered.

## **9. The Licence**

- 9.1 The Highway Authority and the Applicant will have entered into a licence agreement for the attachment upon exchange of licences that have been signed by an authorised signatory within each organisation.
- 9.2 The consent given by this licence is for the purpose of compliance with Section 178 of the Highways Act and does not exempt the applicant from obtaining any further consents or permission.
- 9.3 A licence for a temporary installation shall be for a specific period of time, not open ended or allowed to “roll over” into future seasons and shall be for three months as a maximum.
- 9.4 The benefit of the licence is not transferable.
- 9.5 In granting a licence the Authority does not warrant that the attachment can be physically or legally achieved or that planning, building or any other regulations are satisfied.

## **10. Insurance and Indemnities**

- 10.1 Before the Authority grants licensed privileges the Applicant shall provide evidence of insurance and indemnity.
- 10.2 Licence conditions shall include for the Applicant to provide public liability insurance cover for a minimum £5 million for any one event.
- 10.3 The licensee shall indemnify the County Council and its employees against all losses actions, proceedings, claims, costs, damages or other liability (including for death or personal injury) that arise from the installation, erection, presence, maintenance and removal of the Attachment and for the correction of any latent defects that arise as a result of the attachment.
- 10.4 For licences exceeding 12 months the onus to renew annual insurances, indemnity, renew Independent Structural Report(s) and adhere to arrangements by The Electricity Network Operator/Provider falls to the applicant. The applicant may be requested to submit documents for inspection at any time, if not forthcoming attachments will be removed by the Highway Authority with costs incurred reclaimed from the applicant.

## **11. Termination**

- 11.1 The licence may be ended when:
  - The Authority gives reasonable notice to the Licensee.
  - The licensee gives notice to the Authority.
  - The licence period of time has elapsed.
- 11.2 The Authority reserves their powers granted under the Highways Act 1980 to have attachments that become hazardous or become the cause of an obstruction of the highway removed at the licensee's cost.
- 11.3 If the attachment becomes an obstruction to future maintenance or replacement of the asset, the Authority may give the licensee three months written notice to remove the attachment at the licensee's cost. It may not always be possible for the attachment to be reattached to the asset, in which case the applicant will be advised of the reason why and they must submit an application for an alternative location to be considered.

11.4 Upon termination, the licensee shall remove from the highway and restore highway property to the satisfaction of the Highway Authority at the licensee's cost. If the licensee does not undertake the satisfactory removal of the attachment and restoration of highway property, the Highway Authority may carry this out and recharge the cost to the licensee.

## **12. Unauthorised Equipment**

12.1 The Authority reserves the right to remove and dispose of any un-licensed attachments and recharge the costs involved; including emergency call out charges.

12.2 LCC Lighting Columns or Street Lighting Assets will not be used for mounting CCTV equipment used only for monitoring activity off the highway.

## **13. Exemptions applying to attachments to lighting columns**

13.1 Waiting restriction plates and neighbourhood watch signs need not be licensed, however applicants are requested to ensure that when fixing such signs the post number is not obscured.

13.2 Road signs under the ownership of the Highway Authority and recorded on the asset management inventory need not be licensed.

## **14. Useful Reference Documents**

14.1 The Electricity at Work Regulations 1989, Statutory Instrument 1989/635

14.2 Safety at Street Works and Road Works – A code of Practice

14.3 BS7671: Requirements for Electrical Installations.

14.4 The Highways Act 1980

14.5 The New Roads and Street Works Act 1991

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