

Agenda Item 13, Page 193

Strategy for Managing Highways Lighting – replacement information for Risk Management Implications

Risk Management

The Authority has a duty of care and should ensure new lighting is provided in compliance with BS5489 (EN13201-1) whilst ensuring that existing lighting is maintained according with our duties under the Section 41 of the Highways Act.

Background/History:

CBC has approximately 21,000 street lighting columns, with ages ranging from 1 to 40+ years. Industry best practice as advised by the Institution of Lighting Engineers, 2007 publication: Technical Report 22, Managing a Vital Asset: Lighting Supports, gives a generally expected design life of 25 years for a street lighting column, after which the risk of structural failure increases significantly along with risk of accidental injury to the public. It is recommended practice that a maintenance programme should be based upon replacement of columns of 25 years old, and that this is informed by structural testing to identify those columns with greater or lower life expectancy than the average to ensure all replacements are fully targeted to maximise the used of resources.

Historically, under investment in the replacement of structurally unsound lighting columns has been a national problem, with structural failure experienced by many highway authorities, unfortunately resulting in both serious injury and loss of life. In Central Bedfordshire, due to a previous under investment by BCC structural testing had not been undertaken until 2007 when 3,000 columns were tested, resulting on safety grounds in the immediate removal of 50 columns.

Current situation:

CBC is presently undertaking a programme of structural testing to confirm the 2009/10 programme, this will be continued in future years to inform the column replacement programme. Testing is based upon both operational risk and strategic risk where testing is targeted using the asset register and visual assessment. Risk assessment and prioritisation are based upon the average column life expectancies, site conditions, carriageway classification, vehicular speed, pedestrian density, effect of failure and probability of accident or injury given in the ILE publication (Chapter 14), which is derived from ongoing governmental and industry testing. Tested columns are rated, with the classifications :

High – Column identified should be removed immediately or programmed for replacement within a safe time (less than 12 weeks) so as not to endanger the highway user.

Medium To High Risk – Column identified should be programmed for remedial works. E.g. works within 24 weeks.

Medium To Low Risk – Column identified should be monitored and re-inspected within 18 month period or re-categorised.

Acceptable Risk – Column identified should be reassessed as part of routine maintenance strategy programme. E.g. 3 years time.

Where immediate action is required, columns are taken down to remove any potential risk to the public.

The proposals are fully funded in the 2009/10 budget and provisionally funded with a priority 4 rating in for the next three years capital allocation.

Previous budget allocation allowed for only 41% of the columns requiring replacement per annum to be replaced. From April 2009, additional CBC funding over the four year period until 2013 will ensure that the Authority is able to bring its street lighting stock into line with the required standards, whilst managing the risk to the public. Future continuation of the level of funding of £520K per annum (2009 prices) will ensure the stock is maintained at a level that meets nationally accepted standards in the future.

Knowingly failing to follow nationally accepted street lighting column replacement procedures would result in a higher than acceptable level of risk to the both the public and the Authority. In the worst case of a fatal accident this could expose both members and officers to corporate manslaughter charges.

The programme of replacement of structurally unsound lighting columns is used as an opportunity to upgrade not only the structural condition but also energy efficiency providing a saving on future revenue budgets.

As a integral part of and to enable implementation of the Strategy for Managing Highway Lighting, CBC will complete the development and adoption of the CBC maintenance plan for highway lighting, detailing clear and unambiguous polices for deciding what appropriate action is and when it should carried out.

Follow a targeted programme of column replacement based upon operation and strategic risk assessment using structural testing and lighting performance in accordance with recognised industry best practice.