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ERAP (Consultant Ecologists) Ltd ref: 2018-046
Ribble Valley Borough Council ref: 3/2014/0597

6th February 2019

Dear Chris,

RE: Condition 14: Consideration of Lighting and Foraging Bats at Land off Waddow View, Waddington Road, Clitheroe BB7 2HX

Further to our recent correspondence, I have prepared this letter to address Condition 14 of the outline planning consent to develop the site at Waddow View to housing.

Background and Rationale

The outline planning consent for the development of the site is subject to the following planning condition:

Condition 14:

"*No development shall begin until details of a lighting scheme have been submitted to and approved in writing by the Local Planning Authority. [The lighting scheme shall include details to demonstrate how artificial illumination of wildlife habitats (trees with bat roost potential and hedgerows used by foraging areas bats) is minimised] and how light spillages can be minimised close to existing residential properties around the site. Lighting columns should reflect the scale and character of the town. The approved lighting scheme shall be implemented in accordance with the approved details and thereafter retained in perpetuity in a condition commensurate with delivering the agreed levels of illumination*."

Section 5.2 of our Ecological Survey and Assessment report prepared for the site off Waddow View (ERAP (Consultant Ecologists) Ltd, February 2019) advises:

Paragraph 180, bullet point 'c' in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

Construction Phase

Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within the Construction Method Statement, or similar.

Development Lighting Design

The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the watercourses and associated corridors, retained hedgerows and trees, areas of ecological enhancement and any landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.

The lighting scheme will be designed with reference to current guidance, namely:

a. *Guidance Note 8: Bats and Artificial Lighting in the UK (Institution of Lighting Professionals & Bat Conservation Trust, 2018); and*
b. *Bats and lighting: Overview of current evidence and mitigation guidance (Stone E. , 2014).*

This is for the protection of bats and other crepuscular fauna that may use the site such as birds and possibly otter.

Lighting Proposals

To achieve compliance with best practice and the requirements of Condition 14 this guidance has been taken into consideration by the lighting engineers. The '*Proposed Street Lighting Locations*' plan provided at *Drawings SE-HL-01538-01 and 02* prepared by Eon Highways Lighting (February 2019), hereafter referred to as the 'lighting proposals', has been prepared.

ERAP (Consultant Ecologists) Ltd has examined the lighting proposals. The proposals have been assessed in accordance with the current recognised guidance and a review is outlined below.

Summary and Assessment of Proposals in Relation to the Protection of Bats and other Fauna

Following our review of the lighting proposals, the following statements are made:

a. The lighting proposals comprise the installation of 6 metre high columns fitted with Urbis Axia 3.1 5266 407mA NW LED Luminaire at a tilt of 5°. The luminaire will be fitted with a Lucy Zodion SS12A Photocell (20/20 Switch Regime, Ratio 1:1) factory set to dim between 19:00 and 07:00;

b. Lighting columns have been positioned where required only;

c. All illumination will be located immediately adjacent to the highway; no unnecessary or 'feature' illumination is proposed at the site;

d. The use of LEDs will ensure that the light is directional and produces a narrow beam;

e. The access roads, and therefore any associated illumination, through the centre of the site is positioned away from the boundary trees and hedgerows, particularly those along the northern and eastern site boundaries;

f. Use of lighting columns on the sections of access road in proximity to the watercourse through the site has been limited as much as possible. The columns have been spaced to ensure that there is no cumulative effect of illumination as a result of columns sited too close together;

g. The use of tall (6 metre high) columns with lanterns at the top has enabled light to be directed downwards at an acute angle which acts to reduce horizontal spill. This is evidenced by the iso contours annotated on the lighting proposals plan and is in accordance with current guidance;

h. None of the guidance currently states a lux (quantity of light) threshold that will deter (or will be tolerated) by bats as this is difficult to determine owing to variations in bat species and levels of habituation. However, as demonstrated on the lighting proposals drawing, owing to the use of directional LEDs mounted on tall columns, the lux levels beyond a maximum of approximately 10 metres from the edge of the highway is less than 0.6 lux which is regarded as a 'low level';

i. The tree lines most suitable for use by foraging bats are along the northern and eastern site boundaries. As detailed on the lighting proposals, the proposed lighting columns along the access road at the northern buffer and eastern buffers of the site are minimal;

j. In addition, owing to the site and highway layout the presence of connected 'dark corridors', particularly associated with the areas of landscape planting and surface water attention basins with connectivity to the watercourse corridor and the habitats in the wider area will be achieved;

k. The proposed lighting is not over a reflective surface (such as water or a light-coloured surface) which would act to reflect light upwards and contribute to the lux values; and

l. Owing to the position of the lanterns, the lux values and the directional LED light, light overspill to habitats beyond the site boundary will not occur.

In addition, it is advised that the plan to be prepared to confirm the location of bat access panels at the new properties will be prepared in consultation with the lighting proposals to ensure bat access panels are not sited near lighting columns.

Conclusion

Following our review of the proposals, consultation of the current guidance and our liaison with the lighting engineers it is concluded that the lighting proposals are not contrary to current guidance.

The lighting proposals and specifications are appropriate and sensitive; no additional mitigation measures to limit lighting overspill such as cowls or hoods are necessary.

Once operational, the lighting proposals will not have an adverse effect on the suitability of the retained trees, hedgerows, ditches and watercourses for use by foraging bats (or other crepuscular / nocturnal wildlife).

Future Maintenance

To ensure that the conclusions of this assessment remain valid it is essential that the lighting proposals are implemented in accordance with *Drawings SE-HL-01538-01 and 02* prepared by Eon Highways Lighting (February 2019), and that any future repairs or the installation of replacement lanterns / lamps are carried out on a like-for-like basis.

I trust this letter is of assistance and provides relevant information to satisfy Condition 14 of the outline planning consent.

Please contact me if you have any queries.

Yours sincerely,

Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM
Principal Ecologist