Cindy Westbrook
Whiteoak Developments Limited
The Cannons
Furnace Farm Road
Furnace Wood
West Sussex
RH19 2QD

09 May 2024

Dear Cindy,

Site: Blaker Works, Horsham, Sussex, RH13 8NH

Following the granting of planning permission (Horsham District Council ref. DC/17/1000), for the conversion and extension of an existing building to provide 250sqm of flexible commercial floor space (A1 and B1 Use Classes), demolition of other existing buildings and erection of 12 No. dwellings, and associated landscaping and parking, various planning conditions were applied.

Condition 9 for external lighting states:

"No external lighting shall be installed until a bat sensitive lighting scheme has been submitted to and approved in writing by the Local Planning Authority. The submitted lighting scheme shall be produced in accordance with the recommendations made in the bat survey reports (by Arbtech, dated 28 April 2017 and 19 July 2017). The lighting shall be implemented in full accordance with the approved details prior to their first use and shall be retained as such thereafter."

David Archer Associates has been commissioned to advise on the potential impacts of lighting proposed for the development on biodiversity. This short letter report appraises the latest lighting plans for the development and provides further recommendations where necessary.

Inappropriate lighting could result in adverse effects on ecological receptors such as breeding birds, bats (foraging and commuting), and other nocturnal wildlife including commuting hedgehogs [redacted] Effects of increased lighting may occur on these species through pathways such as disturbance, effects on prey species and foraging patterns, and increased visibility to predators.

<u>Construction lighting</u>
Construction activity will only be undertaken during daylight hours and no construction activity will take place within 30 minutes prior to sunset and within 30 minutes after sunrise, so as to minimise disturbing nocturnal wildlife and breeding birds. Therefore, no overnight construction lighting is

necessary.

Operational lighting

Appendix 1 identifies the lighting plan for the site.

In their report of 19th July 2017, Arbtech recommend the following mitigation in respect of foraging and commuting bats.

"*The tree line to the south of the site should be retained to allow bats to continue to feed in the area.*

Lighting will be controlled across the developed site. Research into the effects of artificial lighting on bats has shown that it can impact upon bat emergence times and lead to a reduced foraging time (particularly for the light sensitive Brown long-eared bat). As bats are faithful to their roost sites, often returning to the same site for many years, the impact of lighting on emergence times and in turn reduced foraging times can ultimately result in the roosts being abandoned.

- *Key areas of the site which are sensitive to artificial lighting are the site boundaries which consist of hedgerows and tree lines providing foraging and commuting routes for bats.*

- *The lighting on the developed site will be limited to the new building only. No lighting will be installed around the boundaries, thereby maintaining the existing dark areas within the developed site for bats.*

- *Low impact lighting strategies will be adopted from the guidance outlined in the Bat Conservation Trust "Bats and Lighting" publications:*

http://www.bats.org.uk/pages/bats_and_lighting.html

- *The lighting on the site will:*

- Use narrow spectrum light sources to lower the range of species affected by lighting

- Use light sources that emit minimal ultra-violet light

- Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue short wave length content they should be of a warm / neutral colour temperature <4,200 kelvin.

- Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal.

- *Light spill will be reduced via the use of low level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only.*

• *External lighting will be positioned below the eaves, be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats), and will be set to the shortest time duration to reduce the amount of time the lights are on.*

• *Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.*"

It should be noted that the site has subsequently been surveyed for bats in 2020, by Environmental Business Solutions (report October 2020), who recommended that no mitigation measures for foraging and commuting bats were necessary. They did recommend installation of bat boxes and these have been taken into consideration in assessment of the lighting plan, which includes the locations of these boxes.

The following measures have been applied within the lighting plan:

- No illumination of newly installed bat boxes will occur
- No external wall mounted lighting will be in place within 5m of boundary vegetation, providing a dark corridor for bats
- Low level bollard lighting along the southern site boundary will be directed downwards from a height of 0.9m, the LED lighting will be recessed to avoid glare, the operation will be on timer and the LED will comprise warm light of 2700 Kelvin
- Wall lighting on buildings will be of the same wavelength, operated by switches/sensors, will be located below the eaves and will be shielded.

The bat surveys undertaken appear to have identified only low levels of foraging, primarily by common pipistrelle *Pipistrellus pipistrellus* bats, with occasional soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bats *Plecotus auritus*, and noctule *Nyctalus noctula*.

Given this, and the fact that the lighting recommendations have taken into account the ecological survey recommendations, it may be concluded that no likely significant effects will occur on bats or other nocturnal wildlife as a result of the proposed lighting plan.

With kind regards,

Graeme Down | Principal Ecologist
BSc (Hons) PhD MCIEEM

Appendix 1 – Proposed Lighting Plan

Do not scale from this drawing, except for planning purposes.
Any discrepancies are to be reported to WS Planning & Architecture.
Refer to Structural Engineers details for structural design criteria.
This drawing remains the copyright of WS Planning & Architecture.



Lighting Strategy prepared in accordance with BCT Guidance Note 08/23

SUPPORTING HABITAT
Brief:
The proposed development will require external lighting for security, and amenity during hours of darkness, whilst ensuring the potential light spill is limited to not offend local ecology.
Mitigation:
- External lighting will be downward facing fittings with low lux level fixtures.
- Proposed lighting locations will additionally avoid areas where bat boxes are located.
- Bat boxes will be located on side elevations where internal illumination will not spill to the exterior.
- Limited illumination will be in operation by use of timed and motion sensor fittings. Timed fittings can be set to avoid activation between 22:00 and 18:00 the following day.
- Motion sensor lighting to be at a maximum of 2 minute activation.
- Warm white LED lamps to be used throughout for all external lighting.
- Internal Light horizontal spill will be mitigated by limiting interior fittings to be no less than 1,0m from all windows or recessed into ceilings.

Buffer Widths:
- Buffer zones to be confirmed by ecologist

Key Areas:
Property frontages, rear amenity areas, and areas where pedestrian movement is likely to occur at night.

Fitting Schedule

Symbol	Specification	
	External Wall mounted light fitting. Product: Corston Richmond Medium Wall Light Luminaire Style: Surface mounted with shielded top Beam Angle: 60° Location: Entrance doors and amenity space. Mounting Height: 2.3m Colour Temp: Max 2700K warm(max) Source type: LED Bulb: Corston Ashby G9 LED (2.8W) Lumen output: 200 lumens Controls: Occupant operated switch or sensors	
	External bollard light. Product: Landmark Eye 93002 - TBL 2700k Material: Oak Luminaire Style: Bollard Light with recessed LED Beam angle: 154x64° downward facing Location: Parking and limited path illumination Mounting Height: 0.90m Colour Temp: Max 2700K warm(max) Lumen output: 50 lm Source type: Single LED fitting Controls: Centralised mechanically/Digitally switched timer. no later than 22:00	
	Bat boxes per Ecological Mitigation and Compensation plan, prepared by EBS Dated, 15 October 2020	

0 5 10 15 20 25 30 35 40 45 50m
SCALE 1:500

Rev	Date	Description

WS PLANNING & ARCHITECTURE
Surrey Office
5 Pool House
Bancroft Rd
Reigate
RH2 7RP
London Office
No.1 Croydon
12-16 Addiscombe Rd
Croydon
CR0 0XT
T. 01737 225711
T. 02038 281180
www.wspa.co.uk
admin@wspa.co.uk

Date: April 2024	Drawn By:
Scale: 1:500@A3	Checked:

Client: Whiteoak Developments Ltd

Project: Blaker Works
Worthing Road
Dial Post RH13 8NH

Title: As Proposed
External lighting layout

Drawing. No.	Rev.
J003948-TDC-9	

As Proposed External lighting layout
PREPARED FOR DISCHARGE OF **CONDITION 9** OF PLANNING CONSENT DC/20/1869