



The Ecology Co-op

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30th August 2023

Ref: P5948 Demolition of property at 15 The Spinney, Itchenor.

To whom it may concern,

The Ecology Co-op undertook a bat scoping assessment at 15 The Spinney, Itchenor on the 15th of August 2023 at the request of Lisa McDanell. This assessment was undertaken further to a proposal which comprises the demolition of a residential property and construction of new residential building on a similar footprint. The survey was undertaken in accordance with best practice guidance produced by the Bat Conservation Trust¹.

The site is situated in a semi-rural area in Itchenor, Chichester PO20 7DF. The central grid reference of the site is SU 80070 00384. It comprises a single-storey bungalow set in an area of closely mown amenity grassland and hardstanding, with some scattered trees within the site. Residential properties are present to the north, east, south and west with arable fields bounded by hedgerows in the wider landscape. Given the nature and small scale of these proposals, this report has focused upon localised site impacts only. The site location is shown in Figure 1, Appendix 1.

The planned works will comprise the demolition of the building and construction of a new residential property on a similar footprint.

The building is in good condition. Table 1 below summarises the building assessed for bat roosting potential. The internal void space was not accessible during the survey, as the only access point was nailed shut.

Table 1. Summary of building assessed for Potential Roost Features (PRFs) on the building.

Building section	Description of features	Assessment of suitability ¹
Building - exterior	Brick built bungalow with factory made clay tiled hipped roof and wooden soffits. No gaps or cracks in brickwork or soffits, no loose or missing tiles. No void inspection was undertaken as the only access point was nailed shut. No access points to loft space from exterior identified. No evidence of bats was identified.	Negligible bat roost suitability

¹ Collins, J.(ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

The arable fields bounded by hedgerows are considered to be of value for foraging and commuting bats in the wider area.

Overall, the suitability of the building to support roosting bats is rated as 'negligible', considering the condition of the building. As such, it is concluded that the proposed development will not impact on roosting bats, and no further surveys are recommended in this instance.

To avoid any disturbance to foraging and commuting bats from artificial lighting, the proposed development should include an 'ecologically sensitive lighting scheme' in accordance with guidance produced by the Bat Conservation Trust (summarised in Appendix 3).

Additionally, the site can be enhanced for bats by incorporating the features below into the fabric of the building. Where bat access tiles are used, only a Type 1F bitumen lining must be used instead of non-bitumen coated roofing membranes such as Tyvec, which over time fray and entangle bats. The bat boxes and features should be installed under the instruction of a suitably licensed ecologist to ensure that the positioning is optimal, but generally locations above 3.5m in the most southeasterly facing aspect of the building would be best. Alternatively, suitable bat boxes could be placed on trees at a height of 3m or higher.

These enhancement measures will help illustrate that the proposals are in adherence of Paragraphs 174 (d) and 180 (e) of the National Planning Policy Framework (NPPF) and should therefore be considered favourably within the planning process.



Bat Access Tile Set, 2FR Schwegler Bat Tube, 2FE Schwegler Wall-Mounted bat shelters and Improved Crevice Bat Box.

If you have any queries about the findings of this assessment, then please do not hesitate to contact me.

Kind regards,



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APPENDIX 1 – Figures



Figure 1. Aerial image showing the location of the site (indicated with a red outline). Site plan. Image produced courtesy of Google maps (map data ©2023 Google).

APPENDIX 2 – Site Photographs



Photograph 1. Western elevation of building..



Photograph 2. Eastern elevation of building.



Photograph 3. Southern elevation of building.



Photograph 4. Northern elevation of building.

APPENDIX 3 – Reducing Impacts of Artificial Light

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts to other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness.

Guidelines issued by the Bat Conservation Trust² should be referred to when designing the lighting scheme. Note that lighting designs in very sensitive areas should be created with consultation from an ecologist and using up-to-date bat activity data where possible. The guidance contains techniques that can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

Avoid lighting key habitats and features altogether

There is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation; however, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species.

Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results:

- dark buffers, illuminance limits and zonation;

- sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill;

- consideration of the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consideration should be given to the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cats eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times;

- screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding;

- glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features;

- creation of alternative valuable bat habitat on site, whereby additional or alternative bat

² Bat Conservation Trust and Institute for Lighting Professionals (2018) Guidance note 8. Bats and Artificial Lighting. <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development;

dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

Demonstrate compliance with illuminance limits and buffers

Design and pre-planning phase; it may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.

Baseline and post-completion light monitoring surveys; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.

Post-construction/operational phase compliance-checking; as a condition of planning, post-completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

Lighting Fixture Specifications

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

Lighting spectra: peak wavelength >550nm
Colour temperature: <2700K (warm)
Reduction in light intensity
Minimal UV emitted
Upward light ratio of 0% and good optical control

Further reading:

Buglife (2011) A review of the impact of artificial light on invertebrates.

Royal Commission on Environmental Pollution (2009) Artificial light in the environment. HMSO, London. Available at: <https://www.gov.uk/government/publications/artificial-light-in-the-environment>

Rich, C., Longcore, T., Eds. (2005) Ecological Consequences of Artificial Night Lighting. Island Press. ISBN 9781559631297.

CPRE (2014) Shedding Light: A survey of local authority approaches to lighting in England. Available at: <http://www.cpre.org.uk/resources/countryside/dark-skies/item/3608-shedding-light>

Planning Practice Guidance guidance (2014) When is light pollution relevant to planning? Available at: <https://www.gov.uk/guidance/light-pollution>

Institution of Lighting Professionals (2021) Guidance Notes for the Reduction of Obtrusive Light GN01:2011. Available at: <https://www.theilp.org.uk/resources/free-resources/>

Voigt, C.C., Azam, C., Dekker, J., Ferguson, J., Fritze, M., Gazaryan, S., Hölker, F., Jones, G., Leader, N., Lewanzik, D. and Limpens, H., 2018. *Guidelines for consideration of bats in lighting projects*. Unep/Eurobats. Available at:

https://cdn.bats.org.uk/uploads/pdf/Resources/EUROBATGuidelines8_lightpollution.pdf?v=1542109376