



The Ecology Co-op

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Ref: Proposed rear dormer extension, front rooflight and replacement windows at 78 Newmarket Road, Brighton BN2 3QF

To whom it may concern,

The Ecology Co-op undertook a bat scoping assessment at 78 Newmarket Road on the 6th December 2023 at the request of City Lets. This assessment was undertaken further to a proposal to construct a rear dormer extension and insert a roof light into the front of the roof and replace windows. The survey was undertaken in accordance with best practice guidance produced by the Bat Conservation Trust¹.

The site is situated in an urban location in Brighton, with high-density housing to the north, south and west, and a large cemetery to the east. It comprises a semi-detached residential building and given the nature and small scale of these proposals, this report has focussed upon localised site impacts only. The site location is shown in Figure 1, Appendix 1.

The planned works will result in the removal of all roof tiles on the southern aspect and a small area of roof tiles on the northern aspect, along with the loss of two chimneys and a small void within the building. The proposals for the site are shown in Figure 2, Appendix 1.

Table 1 below summarises the structure assessed for bat roosting potential. Both the exterior and interior of the building were inspected as part of the survey.

Table 1. Summary of structures/trees assessed for Potential Roost Features (PRFs)

Building section	Description of features	Assessment of suitability ¹
Northern roof aspect	The roof is clad in clay interlocking tiles. The ridge tiles are well mortared. There are no obvious gaps beneath tiles or other features that could be used by roosting bats.	Negligible bat roost suitability
Southern roof aspect	The southern roof aspect is also clad in clay interlocking tiles. Approximately three tiles are missing in the bottom row, however access to these is inhibited by the presence of a drain pipe. There are also a small number of gaps beneath roof tiles, however they appear	Negligible bat roost suitability

¹ Collins, J.(ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn). The Bat Conservation Trust, London.

Building section	Description of features	Assessment of suitability ¹
	to be superficial. There are no obvious gaps around the chimney or beneath lead flashing around the windows.	
Void 1	Void 1 is located just above the eaves in the roof. It is approximately 0.5m in width and 0.5m in height. The roof is lined and small amounts of insulation are present. The void is currently used as storage.	Negligible bat roost suitability
Void 2	Void 2 is located above the converted loft void. It measures approximately 0.5m in height and 1m in width, and runs the length of the ridge. The roof is lined and supported by timber beams. Heavy cobwebbing is present along the ridge.	Negligible bat roost suitability

The land associated with the cemetery to the east of the site is designated as priority habitat deciduous woodland. It is therefore likely to provide suitable commuting and foraging habitat for more light-tolerant species of bats, due to its location close to the centre of Brighton. This habitat likely supports more suitable roosting features for bats also.

Overall, the suitability of the building to support roosting bats is rated as 'negligible', considering the condition of the building and its context within suitable foraging habitat for bats. Given this rating but in consideration of the risk of bats using roosts which would typically be considered unsuitable, a precautionary approach to the development is recommended in line with BCT guidelines (section 5.2.9), where it states that 'an ecologist should make a professional judgement on how to proceed based on all of the evidence available'.

The precautionary approach should include the following:

- preparatory works – 'soft strip': all roof tiles should be carefully removed from the roof by hand under the supervision of a licensed bat ecologist;
- timing: the hand stripping of roof tiles should be undertaken in the period between May and the end of October to avoid disturbing bats that could be in hibernation;
- in the unlikely event that any bats or evidence of bats is identified during the roof strip, all work should halt and the potential for impacts and need for European Protected Species (EPS) licencing will be reassessed.

To mitigate 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 modern breathable membranes such as Tyvec, which over time fray and entangle bats. 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.

No evidence of nesting birds was identified, and the site is not considered to have value for any other protected species.



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 78 Newmarket Road (indicated with a white arrow). Site plan. Image produced courtesy of Google maps (map data ©2023Google).



Figure 2. Proposed plans for 78 Newmarket Road. M.J. Humphrey Ltd. November 2022, dwg no. 2022/208.

APPENDIX 2 – Site Photographs



Photographs 1a (left) and 1b (right). 1a: the front (northern) aspect of the building. 1b: the rear (southern) aspect.



Photographs 2a (left) and 2b (right). 2a: Void 1. 2b: Void 2.

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 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

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/>

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 (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/EUROBATSGuidelines8_lightpollution.pdf?v=1542109376