

Highfield Rise, Shrewton

Lighting Plan

Document control

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Declaration	I confirm that the information provided in this document is truthful and accurate at the time of completion.	
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Introduction

Background

In April 2026, Wessex Ecology Ltd were commissioned by LAWW Developments to create an ecological lighting plan for Highfield Rise, Shrewton. This was following a preliminary ecological appraisal (PEA) conducted on the 28th March 2025.

The planning reference for this project is PL/2024/11180.

Limitations

The report is completed by an ecologist and as such can only advise on lighting recommendations to fit ecological requirements. The Lux Map produced has been done so without the consideration of a 3D environment. Therefore, the Lux Map represents the worst-case scenario through not considering light loss/obstruction from obstacles. The lighting plan complies with BCT guidelines under this limitation.

The style of light fixtures has not yet been decided upon by the client and therefore an in-depth calculation of glare and vertical illuminance cannot be completed. The client will purchase and utilise lighting fixtures that fit the specifications require and detailed in Table 1. Light fixtures installed correctly, following ILP Guidance note 01/21 and the specification listed in Table 1. will comply with the requirements for lighting within an EZ2.

Ecological Lighting Constraints

Environmental Zone

No document has been published by the Wiltshire Council that displays environmental zones (EZ). The Environmental Zone for this project has been assumed to be E2. The site is located within a small rural village. There are no streetlights and residential buildings that will likely emit at least a low district brightness. The Highfield Rise lighting plan will comply with the ILP Guidance note 01/21 – The Reduction of Obtrusive Light.

Bats

The preliminary ecological appraisal (PEA) produced by Daniel Ahern Ecology concluded that the site was of MODERATE potential for commuting and foraging bats. The desk study found several records of bat species within 1km of the site and two granted bat EPSL's (European Protected Species Licence) within 2km.

A lighting plan should ensure that the bat habitats used for commuting and foraging are unaffected by the implementation of lighting within the new development. The

lighting plan will comply with the BCT and ILP Guidance note 08/23 - Bats and Artificial Lighting in the UK.

Proposed lighting fixtures

Three areas were identified to be desirable locations for external lighting on the new development plan: entrance/exits points, the external bins and storage area.

Lighting specifications

There had been no lights selected on behalf of the client. The client was welcome to choose their own lighting designs provided they follow the specifications listed in Table below.

Internal lighting should also be compliant with the specifications displayed in Table 1. The clients should install and use curtains or blinds to block internal light spilling onto bat habitat.

Table 1. Lighting specifications.

Specification	Requirement	Notes
Bulb type	LED	
Colour temperature	$\leq 2700\text{Kv}$	
Lumen output	$\leq 50\text{-}80$ Lumens	The Lux Map is produced with the assumption of 80 lumens per light. Any light producing 80 lumens or less will comply with guidance.
Peak wavelength	$\geq 550\text{nm}$	
Controls	PIR	All lights should be motion sensor controlled. Non-PIR Lights can be connected to a motion sensor switch. The client may wish to install an off switch.
Light direction	0% upward spill	Cowled and hooded light fixtures that block upward light spill will be used. The upward lightspill is required to be $\leq 2.5\%$ per luminaire to comply with ILP EZ2 guidance.
Beam direction	Downward only	The beam angle will be $\leq 70^\circ$ and pointed downward towards desired position (entryways/refuse bins). The light fixture should be placed as high on the exterior wall as possible, focusing light and minimising glare.

Proposed lighting Plan

The proposed lighting plan considers three external lights that will comply with the recommended specifications listed in Table 1. The lighting plan will allow for safe access to entry/exits points as well as the external refuse area. The design will not negatively impact bat habitats. The orange shaded areas display a lux level of 0.5. The bat habitat including hedgerows and trees are not within the orange shaded areas. The bat brick is within the 0.49-0.1Lux range which complies with BCT guidelines, a light level of 0.49-0.1 is no more than would be expected on a moon light night or passing car. The light will also be motion sensor meaning the minimal impact will not be constant. Figure 1. displays the Lux contour map based on these proposed light fixtures and estimates 80 lumens per bulb.

Figure 1 – Proposed Lighting Plan.



References

Bat Conservation Trust and Institution of Lighting Professionals (2023) Guidance Note GN08/23: Bats and Artificial Lighting in the UK. Institution of Lighting Professionals. Available at: <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

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

Gunnell, K., et al (2010) Designing for Biodiversity: A technical guide for new and existing buildings. (2nd edn). RIBA.

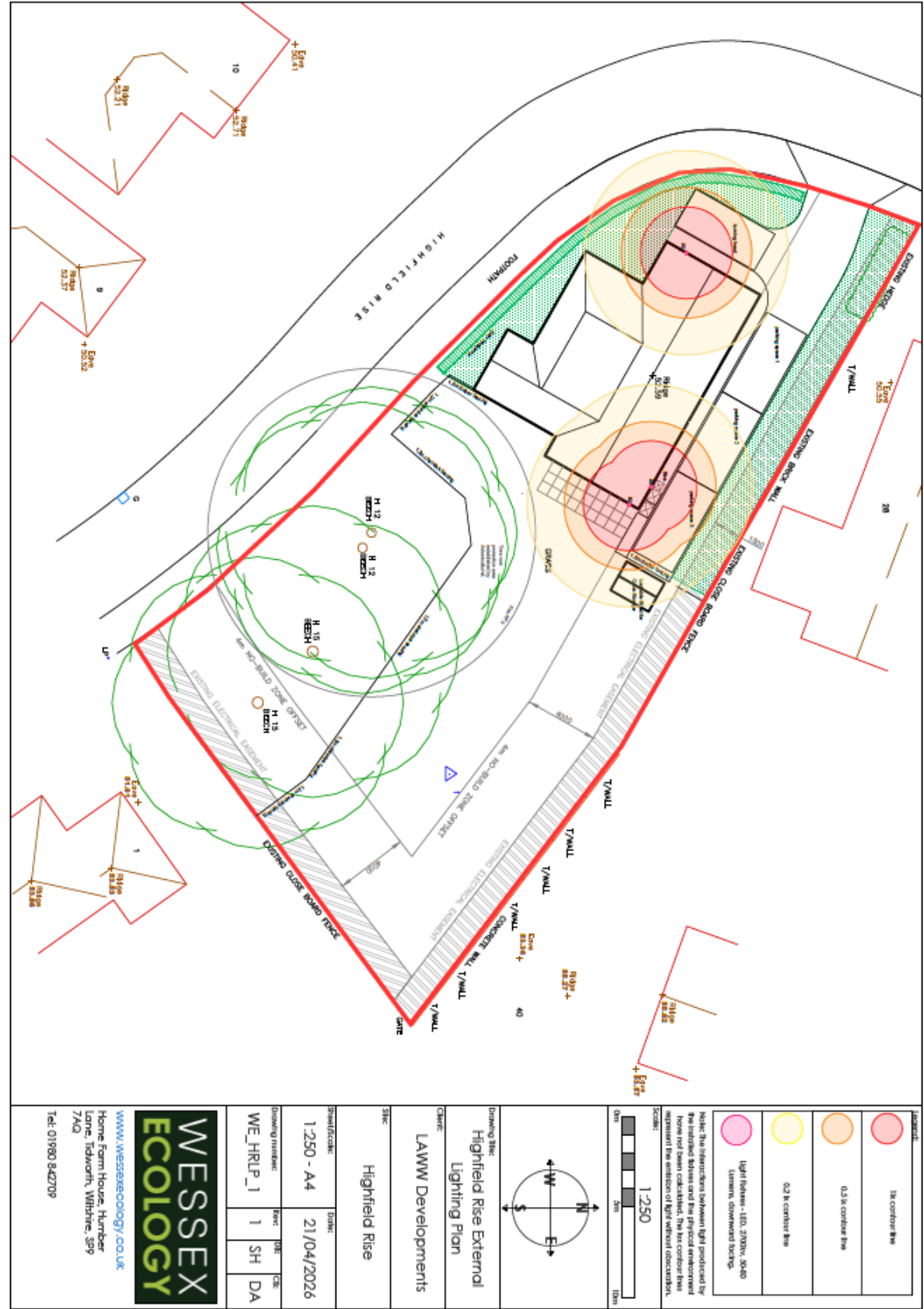
Highfield Rise, Shrewton, Biodiversity, Mitigation and Enhancement Strategy, 2025, Daniel Ahern Ecology.

Institution of Lighting Professionals (2021) Guidance Note GN01/21: The Reduction of Obtrusive Light. Institution of Lighting Professionals. Available at: <https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/>

Land Adjoining Hilltop Close, Shrewton, Preliminary Ecological Appraisal, 2025, Daniel Ahern Ecology.

UKHab Ltd (2023) UK Habitat Classification Version 2.0 (<https://www.ukhab.org/>)

Appendix 1 – Lighting Plan



Appendix 2 – Relevant legislation

Bats

All bats in the UK are protected by law. They are protected under the Wildlife & Countryside Act 1981 (as amended) and European directives under The Conservation of Habitats and Species Regulations 2017 (as amended).

This means it is an offence to:

- Deliberately capture, injure or kill a bat
- Deliberately disturb a bat
- Damage or destroy a breeding site or resting place of a bat
- Possess or control a bat
- Transport a bat
- Sell or exchange a bat
- Offer for sale or exchange any bat, alive or dead, or any part of a bat.
- Intentionally or recklessly disturb a bat occupying a structure or place used for shelter or protection,
- Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by bats.

Disturbance of animals includes disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young, migrate or hibernate. It also includes any disturbance likely to affect significantly the local distribution or abundance of the species. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as flight corridors and foraging areas.

Subject to receiving planning approval, it may be necessary to apply for and obtain a European Protected Species Licence (EPSL) from Natural England under the conservation (Natural Habitats, &c) (Amendments) 2017 Regulations, to legally allow the proposed works to take place.

If a licence is required, no building works on the building must take place until an EPSL has been issued.

Relevant link:

[Bats and the law - Advice - Bat Conservation Trust](#)