

Glebe Road

Letchworth Garden City, Hertfordshire

Ecological Lighting Specification

July 2026

Wheatley



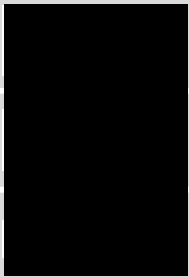
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Document Amendment History

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V1	Draft	23.06.2026	Updated following additional site context and discussion with lighting designers.
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Document Approval

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1 Introduction & Methodology

1.1 BACKGROUND

Maydencroft Limited was commissioned by Wheatley to produce an Ecological Lighting Specification for the proposed development at Glebe Road, Letchworth. The lighting specification is required to prevent disturbance to foraging and commuting bats, as well as other nocturnal animals such as badgers and hedgehogs.

The section of land concerned in the survey (referred to as the 'Site' from hereafter) covers an area of approximately 0.26ha. The Site (TL 22300 33372) is situated in Letchworth and is surrounded by industrial developments and a network of residential gardens. Norton Common is situated a short distance to the west, which contains large areas of woodland and grassland. The Site currently consists of a commercial building and associated parking, with a woodland belt to the north and hedgerow along the eastern boundary. The ground level of the Site lies below that of the surrounding area and is therefore surrounded by a low retaining wall.

The current assessment has been informed by a Bat Activity Survey which was undertaken in May 2025 by Coyne Environmental (Coyne Environmental, 2025). The lighting assessment involved a desk study which was undertaken on 18th June 2026 by Hannah Brookes, Ecologist.

1.2 PROPOSALS

The development will involve the construction of nine new residential properties with associated gardens, parking and access road.

The proposed lighting scheme will include the following lighting fixtures:

- 13x Gemma Nelson Bollard 20W (2700K). Free standing height of 1m.
- 18x Ligman JET Downlight 8W (3000K). Mounted at height of 2m.

The bollard lights will be situated in the northern portion of the Site to light, pathways, staircases and parking areas. The downlights will be mounted on the front and rear of the proposed houses at a height of two metres.

1.3 VALIDITY

In accordance with CIEEM guidance (CIEEM 2024), this report is valid until 18th December 2027, this being 18 months from the date of the survey/s. After this date, an Ecologist should be consulted to update the assessment to ensure that the conclusions of this report are still correct.

1.4 DESK STUDY

A lighting design and impact assessment has been completed as part of the proposal (MMA Lighting Consultancy Limited, 2026). This lighting design has been evaluated to determine its likely ecological impact in accordance with advice from *Guidance Note 8/23: Bats and Artificial Lighting at Night* produced by the Bat Conservation Trust and Institution of Lighting Professionals.

2 Results

2.1 ASSESSMENT

The previous survey identified extended common pipistrelle (*Pipistrellus pipistrellus*) foraging and commuting activity around the existing buildings and along the hedgerow and gardens at the Site boundary. Several common pipistrelles were recorded at one time. Occasional soprano pipistrelle (*Pipistrellus pygmaeus*) activity was also recorded. Pipistrelle species are considered slightly more tolerant to light than other bats species and are often observed within urban environments.

The treeline to the north of the Site and hedgerow/gardens to the east of the Site have been identified as valuable habitat for foraging and commuting bats. Bats were also observed foraging around the buildings themselves. In addition, two bat boxes will be installed on the southern face of the houses. These habitats are considered particularly sensitive when considering light disturbance. However, it should be noted that streetlights are present along the road to the north of the Site and security lighting may already be in use on the commercial building on Site.

2.1.1 Foraging and commuting bats

Foraging and commuting bats will typically fly as close as 1m to the ground, particularly slower flying species such as long-eared bats (*Plecotus* spp.) and barbastelles (*Barbastella barbastellus*).

The bollard lighting to the south of the Site stands at a height of 1m. Guidance from the Bat Conservation Trust '*strongly discourages*' the use of bollard lighting due to its height and potential to disrupt lower flying bats. However, when

considered within the context of the Site, the bollard lights are not considered to be as disruptive as the ground level of the Site is lower than that of the surrounding area. Therefore, the bollard will not pose as much of an impact as they will be situated lower than the habitats of particular value on Site. The only exception to this would be the proposed bollard lights along the stairways to the north of the Site which pass through the wooded area. This may cause some disturbance to ground-dwelling nocturnal wildlife such as hedgehogs and badgers.

The downlighting mounted to the properties is likely to pose quite a minimal disturbance due to its proximity to the wall. The lights are proposed to be installed at a height of 2m which is generally considered to increase outwards light spill than if it were mounted at a lower height. However again, as the ground level of the Site is lower than the surrounding area, the relative height of the fixtures in comparison to sensitive habitats is lower and may not pose as much of an impact as initially thought. The proposed downlight fixtures have a colour temperature of 3000K, which exceeds the recommended maximum of 2700K. Cooler lighting is widely considered more disturbing to foraging and commuting bats than warmer temperatures.

As such, the proposed lighting scheme is not considered optimal for foraging and commuting bats, largely due to the colour temperature of certain fixtures and the use of bollard lights along stairways to the north of the Site. However, the impact of the height of certain fixtures is lessened due to the fact that the ground level of the Site is below that of the surrounding area. Fixtures will be at a lower relative height when compared to the boundary habitats of the Site, which sit above the retaining wall.

2.1.2 Roosting bats

Two bat boxes will be mounted at a minimum height of 4m on the southern face of the property. All lighting will be installed below 4m and the proposed light fixtures do not have any upwards lighting element.

As such, the proposed bat boxes will be positioned within suitable areas of darkness to facilitate access and will not receive any significant disturbance as a result of the proposed lighting scheme. The only potential disturbance could be caused by internal light spill out of windows, although this is likely minimal.

2.2 RECOMMENDATIONS

The following recommendations are provided to optimise the proposed lighting scheme for nocturnal wildlife. These recommendations have been reached through collaborative discussion with the lighting designer to maintain the ecological function of the Site as much as possible whilst ensuring safety for residents and ease of maintenance. The author bears no affiliation with specific products which have been recommended. Products are only recommended as suitable examples of particular styles of fixture; other models may be just as suitable.

2.2.1 *Foraging and commuting bats*

The suggested bollard lights are considered acceptable for the proposed scheme as they will sit at a relatively lower height than the surrounding boundary features. They are of an acceptable colour temperature and do not have any upwards lighting element. Extra consideration should be given when placing bollard lights along the stairways leading down the sloping woodland at the north of the Site. The use of recessed wall lights along the stairways was suggested, but issues regarding ongoing management and subsequent

health risks were raised. As such, bollard lighting is still the preferred option, but the dimming of lights should be considered to minimise disturbance to ground-dwelling nocturnal species such as badgers and hedgehogs.

Wall mounted lights should not be placed more than 1.8m high, where possible. Fixtures freely mounted on walls will be adjusted to this height. However, fixtures above doorways cannot be mounted any lower than 2.4m due to the height of the door. The height of these lights alone is not considered to pose a significant impact due to the lower relative ground level of the Site, as discussed previously. Still, the chosen downlight fixture proposed for use across the Site should be substituted for a fixture with a warmer colour temperature, below 2700K. (E.g. Light Graphix: LD97). The fixture should not have any upward lighting element and should have a narrow beam angle to minimise light spill.

2.2.2 *Roosting bats*

Bat boxes should be mounted as far as possible from windows, to minimise disturbance due to light spill from internal fixtures. No further changes are recommended.

3 References

Bat Conservation Trust and Institution of Lighting Professionals (2023) *Bats and Artificial Lighting at Night*

Coyne Environmental (2024) *Glebe Road Industrial Estate Ecological Appraisal December 2024*

Coyne Environmental (2025) *Glebe Road Industrial Estate Letchworth Bat Activity Survey May 2025*

MMA Lighting Consultancy Ltd (2026) *Glebe Road Letchworth Outdoor Lighting Report*

MMA Lighting Consultancy Ltd (2026) *Glebe Road Letchworth Private Lighting Impact Assessment*