



Bat Survey Report

Bat Emergence Surveys

Maple House
High Street
Potters Bar
Hertfordshire
EN6 5AE

September 2025

250726-TMA-XX-RP-EC-5300-P00

Limitations and Copyright

TMA has prepared this Report for the sole use of the named Client or their Agents in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This Report may not be relied upon by any other party without the prior and express written agreement of TMA. The assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by TMA.

Tim Moya Associates standard Limitations of Service apply to this report and all associated work relating to this site. A copy has been supplied with our original quotation and further copies are available on request.

Project	Maple House, Potters Bar
Report Type	Bat Survey Report
Author	██████████, Senior Ecologist
Reviewed by	██████████ MCIEEM, Senior Ecologist
Original Report Date	05.09.2025
Updates	

CONTENTS PAGE

NON-TECHNICAL SUMMARY	3
1 INTRODUCTION	4
BACKGROUND	4
SITE DESCRIPTION.....	4
PREVIOUS ECOLOGICAL SURVEYS.....	4
PURPOSE OF THIS ASSESSMENT	5
INFORMATION SUPPLIED	5
LEGISLATION.....	5
2 METHODS.....	7
BAT EMERGENCE SURVEY METHODS	7
LIMITATIONS.....	10
3 RESULTS OF BAT EMERGENCE SURVEYS	11
ROOSTING BATS.....	11
NON-ROOSTING BAT ACTIVITY	11
4 IMPACT ASSESSMENT AND RECOMMENDATIONS	12
BUILDINGS	12
FORAGING AND COMMUTING HABITAT	12
5 OPPORTUNITIES FOR ENHANCEMENTS	13
6 REFERENCES	14

NON-TECHNICAL SUMMARY

This report assesses bat roosting and activity at the proposed development site at Maple House, Potters Bar. The proposed development is in its early design stages but is for a mixed-use development, to include both residential and commercial units, with an allocation for older person(s) housing.

This report is broadly considered valid for 18 months after which time it is recommended that an update site assessment is undertaken.

The site bat survey included the following:

- Bat Emergence Survey of Buildings B3 and B4, assessed as having low bat roosting potential.

Key Findings:

- No bats were seen emerging from the building during the bat emergence surveys.
- Roosting bats are considered unlikely to be present and no further surveys are recommended.
- Lighting should be minimised to avoid illuminating suitable bat foraging and commuting habitats.

1 INTRODUCTION

Background

- 1.1 This report has been instructed by Chase New Homes.
- 1.2 The proposed development is in its early design stages but is for a mixed-use development, to include both residential and commercial units, with an allocation for older person(s) housing. The development proposals are shown in Appendix 3.

Site Description

- 1.3 The application site lies within Potters Bar, in the Borough of Hertsmere, Hertfordshire. It comprises two multi-storey office buildings (Canada Life and Maple House), a covered parking garage, an outdoor car park, a car wash, and two linear blocks of commercial units with residential accommodation above along High Street and Princes Parade at the eastern boundary. Soft landscaping across the site includes areas of introduced shrub planting, modified grassland and scattered trees.
- 1.4 At the wider scale, the site sits within the urban area of Potters Bar, which is surrounded by arable fields and pasture. The M25 is located approximately 1 km to the south, and the A1(M) approximately 3.2 km to the west, providing the principal strategic transport corridors in the locality.
- 1.5 The central grid reference for the site is TL 2596 0099.

Previous Ecological Surveys

- 1.6 The Preliminary Ecological Appraisal Report (The Landscape Partnership, July 2025, ref. B25037) included an assessment of all buildings and trees within the site in order to assess their suitability for roosting bats.
- 1.7 The assessment of the buildings was as follows:
 - Building B3 (High Street) was assessed as having low potential to be used by roosting bats, attributed to the presence of several features, including lifted tiles, lifted flashing, and defects underneath the roof trim.
 - Building B4 (Princes Parade) was assessed as having low potential to be used by roosting bats, due to the presence of suitable features including lifted and slipped tiles and lifted flashing.

- All other buildings within the site boundary were classed as negligible potential due to a lack of notable viable bat roost features.

1.8 To ascertain whether the buildings are used by roosting bats, in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023), it was recommended that one further nocturnal emergence survey, of each building, be carried out during the summer bat survey season (May to August inclusive) to determine likely absence or confirmed presence of roosting bats in buildings B3 and B4

Purpose of this assessment

- 1.9 The bat emergence surveys aim to collect sufficient data to draw conclusions about the use of the buildings by roosting bats, primarily by observation of bats leaving or returning to the buildings at dusk.
- 1.10 This report contains the details of the survey methodologies and results of the surveys.
- 1.11 Survey findings will be used to assess the conservation value of the site for the bat species present and determine likely impacts of the proposed development and which type of mitigation measures (if any) would need to be employed.

Information supplied

- 1.12 This report has been prepared with reference to the following supplied plan (amongst others), showing the extent of the site boundary and the proposed development:
- Potters Bar High Street, Arney Fender Katsalidis, 13.05.2025 (SK.002B)
- 1.13 Please note the above-named plans may be superseded or updated without warranting an update of this report, if the changes are insignificant to the impact of the development on biodiversity.

Legislation

- 1.14 All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or

dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

2 METHODS

Bat Emergence Survey Methods

- 2.1 Bat emergence surveys were undertaken in July 2025. This is within the optimal period for bat emergence and re-entry surveys. Survey methodology followed the Bat Conservation Trust's *Bat Surveys for Professional Ecologists* (Collins, 2023). Multiple surveys of each feature were separated by at least three weeks.
- 2.2 In order to provide coverage of all potential roosting features and access points, six observation points were identified to cover the building B3, and five observation points were identified to cover the building B4. The observation positions are shown in Appendix 1.
- 2.3 The bat detectors used were full-spectrum detectors. The Bat logger M2, Batlogger and the peersonic. In all cases, recording devices were employed in order to record and analyse calls of unidentified bats. The surveys were undertaken by experienced bat surveyors. Details of bat surveyors are included in Appendix 2 of this report.
- 2.4 Where visibility was restricted due to dark areas, infra-red cameras were used either to aid human surveyors or independently. Where cameras were used independently, they were paired with an automated bat detector. The cameras used included Canon XA60, Canon XA11, Nightfox Whisker, Sony A7s and Sony FDR AX100E all with additional infra-red illumination. Additionally, a thermal camera was used, the FLIR A70. Locations of all Night Vision Aids (NVAs) are provided in Appendix 1.
- 2.5 The strategy for positioning night vision aids (NVAs) and surveyors was planned to maximise the accuracy and coverage of the bat surveys within the limitations of the site. NVAs were placed at strategic locations to capture key areas of the building where bats are most likely to emerge or re-enter, based on the observed bat activity and potential roosting features. Surveyors were stationed to provide optimal visual coverage of these areas, complementing the views of the cameras, and helping to ensure that no bat activity would go unnoticed. Screenshots from each camera position taken at the end of the survey have been included in Appendix 2. These images demonstrate the field of view from each camera, confirming that the placement effectively covers all critical areas for bat activity monitoring
- 2.6 Following each survey, all video footage was reviewed. Our video review process involves two key phases. First, we carefully review timestamps against survey sheets to monitor specific situations, such as when bats are observed but their origin is

uncertain, when bats are identified as heard but not seen, or when bat emergences are detected (to confirm the exact access points). The second phase is a comprehensive review conducted at the point when it becomes too dark for any further activity to be visible by the human eye, ensuring that all possible bat movements have been accurately recorded and analysed.

- 2.7 Where thermal data was obtained, it was reviewed following the survey using FLIR Research Studio software. The analysis process involves generating a graph that illustrates temperature changes within the survey area over the course of the survey period. Each temperature fluctuation appears as a peak on the graph, and each peak is individually investigated to determine its cause. This method ensures that all potential bat movements within the survey area are identified and complements traditional survey methods by providing an additional layer of analysis that does not rely solely on human observation. By reducing reliance on visual detection alone it can help minimise the risk of overlooking activity, particularly in challenging conditions.
- 2.8 The weather conditions during the bat emergence surveys were as follows.

Table 1. Dates and weather conditions Building B3

Date	Survey type	Sunset/sunrise time	Survey start	Survey end	Cloud Cover (%)	Precipitation	Wind (Beaufort)	Start temperature (°C)	End temperature (°C)
17.07.25	Dusk emergence	21:12	20:57	22:42	75	0	2	22	20

Table 2. Dates and weather conditions Building B4

Date	Survey type	Sunset/sunrise time	Survey start	Survey end	Cloud Cover (%)	Precipitation	Wind (Beaufort)	Start temperature (°C)	End temperature (°C)
24.07.25	Dusk emergence	21:03	20:48	22:33	100	0	2	18	17

Limitations

- 2.9 As the attributes of the site and its potential for protected species, including bats, may change over time, this report is broadly considered valid for a duration of 18 months, after which time it is recommended that an updated site assessment is undertaken.
- 2.10 Bat emergence surveys, even when undertaken during the optimal season and over the recommended number of occasions, can only take a snapshot of bat roosting patterns. Bats are often nomadic in their roosting habits and may use some roosting features only sporadically and in low numbers. In sites where a high number of potential roost features exist, there remains some possibility of bats roosting within features not identified as roosts during the surveys. As such, mitigation measures should include a precautionary approach to features with high potential to be used by bats, even where their presence was not recorded during surveys.
- 2.11 The lower amplitude of calls of species such as brown long-eared bat (*Plecotus auritus*) and barbastelle (*Barbastella barbastellus*) are more difficult to detect, therefore, passes by these species may be under-recorded.
- 2.12 During the dusk survey of Building B3 on 17th July 2025, one camera position was temporarily compromised following a road traffic collision (RTC) involving a car and a domestic animal. The camera was moved from its survey position at 22:06 (1 hour 3 minutes after sunset) and was pointing away from its position. There was also a lot of people blocking the view of the camera making the footage difficult to review. The camera was returned to its original survey position approx. 10 minutes before the end of the survey.
- 2.13 No bats were recorded prior to the incident. A single bat pass occurred during the period of the incident; given the late timing relative to sunset, this is unlikely to represent an emergence and has been classified as a miscellaneous pass. The two adjacent cameras did not record any emergences.

3 RESULTS OF BAT EMERGENCE SURVEYS

Roosting Bats

- 3.1 During the dusk emergence surveys no bats were seen to emerge from any part of Building B3 or Building B4

Non-Roosting Bat Activity

- 3.2 During the dusk survey of Building B3, levels of bat activity were considered to be low. A maximum of one common pipistrelle (*Pipistrellus pipistrellus*) pass was recorded. A *Nyctalus sp.* pass was recorded at one survey position (Position 6). The earliest bat pass was at 21:35 (23 minutes after sunset). Both of the passes were by commuting bats.
- 3.3 No bats were recording on the survey of Building B4.

4 IMPACT ASSESSMENT AND RECOMMENDATIONS

Buildings

- 4.1 No bats were recorded roosting within the buildings during the surveys. The surveys have followed the recommended standards to demonstrate likely absence of roosting bats (Collins, 2023). The proposed demolition is therefore not expected to impact roosting bats. No further surveys, mitigation or precautions are recommended with regard to roosting bats.

Foraging and commuting habitat

- 4.2 The site was used by a low number of bats for commuting during the surveys. The site is therefore not considered to provide an important resource for foraging and commuting bats. The proposed development is unlikely result in an increase in light-spill as the site is already well lit however new lighting should be limited where possible.

5 OPPORTUNITIES FOR ENHANCEMENTS

- 5.1 In accordance with the National Planning Policy Framework, recommended opportunities for biodiversity enhancement (above and beyond those required to mitigate for the identified impacts) are set out below.

Bat boxes

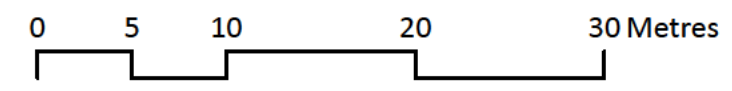
- 5.2 The inclusion of bat boxes provides new roost sites for bats within the local area. A variety of bat box designs are available, for installation on external building walls, or to be in-built into the structure of new buildings. Bat boxes should be located in sheltered spots away from artificial lighting and placed at a height of at least 3 metres from the ground, ideally facing south. Recommended models are shown below;

	
Habibat 003 – built in bat box (wildcare.co.uk)	Habibat 3S with closed top (wildcare.co.uk)
	
Integrated eco bat box – crevice (wildcare.co.uk)	Cavity bat roost (wildcare.co.uk)

6 REFERENCES

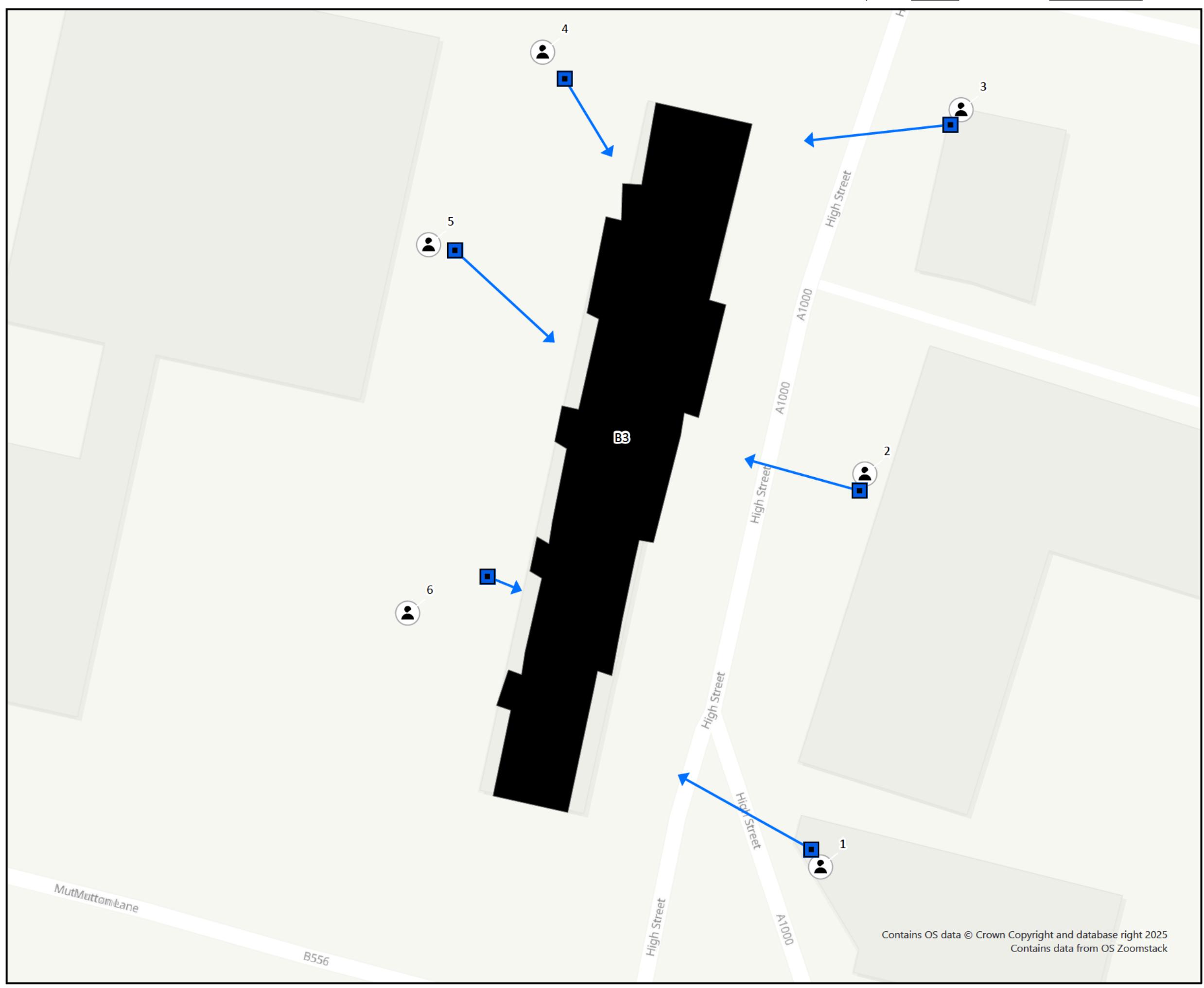
- Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.
- Institution of lighting professionals (2023) Bats and artificial lighting at night.
- The Landscape Partnership (2025). Preliminary Ecological Appraisal for Maple House, Potters Bar.

Appendix 1 - Surveyor Locations



Legend

- Buildings
- Camera position
- Surveyor Position
- Direction of view



Title:		
Bat Survey Plan (a)		
Client:		
Chase New Homes		
Project:		
Maple House, Potters Bar		
Date	Drawn by	Authorised
05/09/2025	PK	BC
Drawing No	Rev	Scale
250726-EC-04	-	1:400@A3

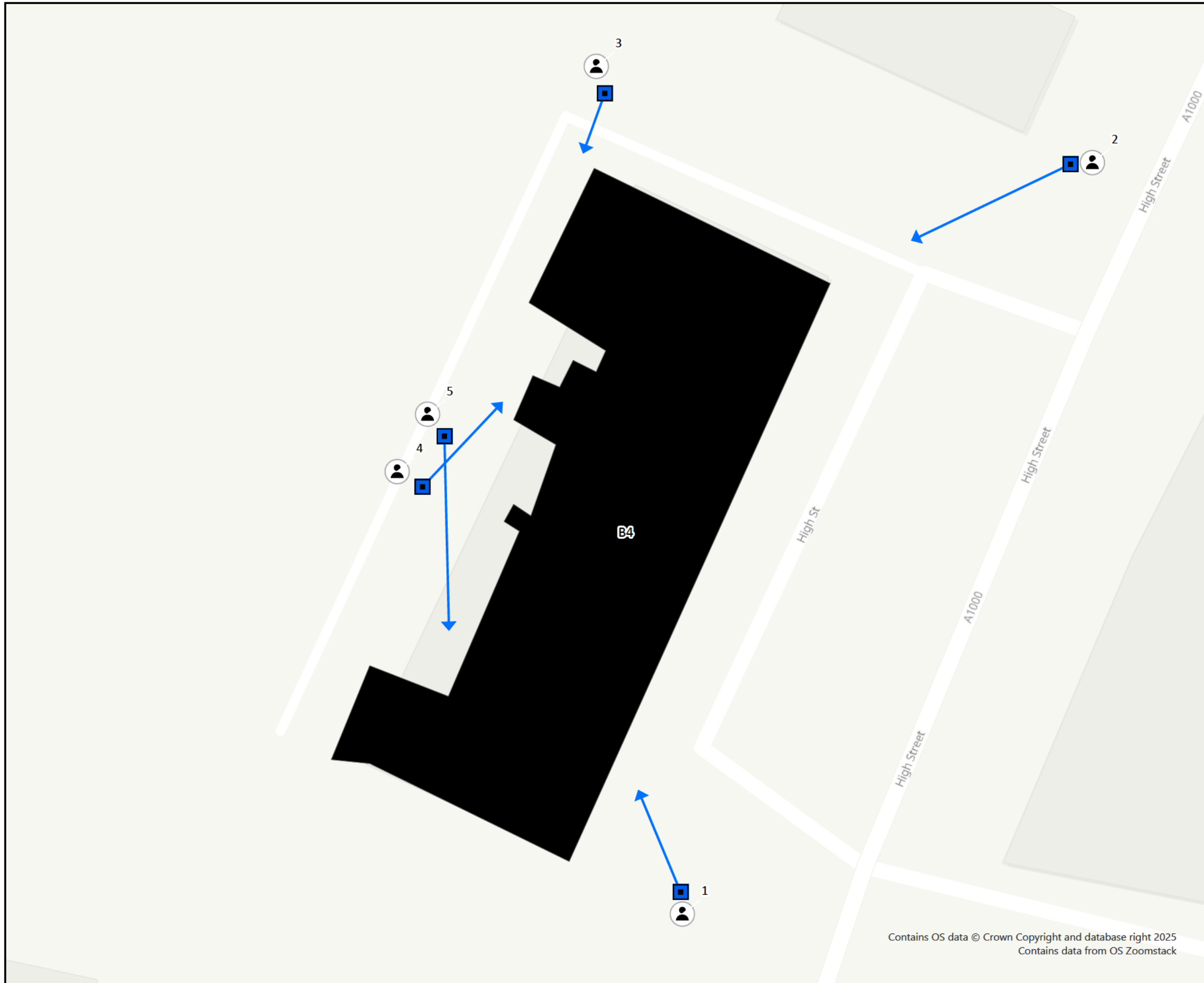
Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack



0 5 10 20 Metres

Legend

- Buildings
- Camera position
- Surveyor Position
- Direction of view



Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

Title:		
Bat Survey Plan (b)		
Client:		
Chase New Homes		
Project:		
Maple House, Potters Bar		
Date	Drawn by	Authorised
05/09/2025	PK	BC
Drawing No	Rev	Scale
250726-EC-04	-	1:250@A3



Appendix 2 - Surveyor Details

Surveyor	Bat Survey Licence Holder	Experience Levels	Licence number
Lynden Reed MCIEEM Senior Ecological Consultant	Yes	Over 7 years of experience undertaking bat surveys.	2022-10486-CL20-BAT & 2022-10922-CL19-BAT
Bradley Collins Senior Ecological Consultant	No	Over 7 years of experience undertaking bat surveys.	
Charlie Torr Ecological Consultant	No	Over 2 years of experience undertaking bat surveys	
Kendra Edwards Assistant Ecological Consultant	No	Over 1 years' experience of undertaking bat surveys	
Billy Mitchell Freelance Bat Surveyor	No	Over 2 years experience of undertaking bat surveys	
Molly Gavin-Law Freelance Bat Surveyor	No	Over 2 years experience of undertaking bat surveys	
Ben Nelumbu	No	Over 10 years experience of undertaking bat surveys	
Dani Rozycka	No	Over 14 years experience of undertaking bat surveys	

Appendix 3 – Images



Figure 1 – B3 Position 1 – Start



Figure 2 - B3 Position 1 – End IR view



Figure 3 - B3 Position 2 – Start



Figure 4 - B3 Position 2 - End IR view



Figure 5 - B3 Position 3 – Start



Figure 6 - B3 Position 3 – End IR view



Figure 7 - B3 Position 4 – Start



Figure 8 - B3 Position 4 – End IR view

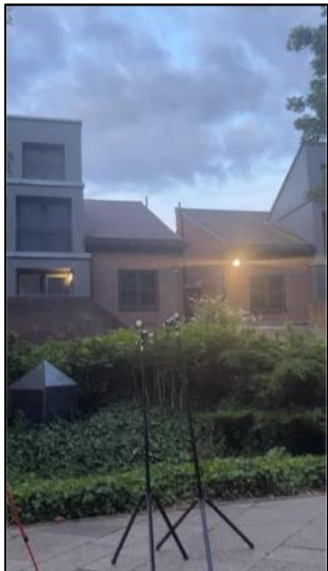


Figure 9 - B3 Position 5 – Start



Figure 10 - B3 Position 5 – End IR view



Figure 11 - B3 Position 6 – Start



Figure 12 - B3 Position 6 – End IR view



Figure 13 – B4 Position 1 – Start



Figure 14 – B4 Position 1 – End IR view



Figure 15 – B4 Position 2 – Start



Figure 16 – B4 Position 2 – End IR view



Figure 17 – B4 Position 3 – Start



Figure 18 – B4 Position 3 – End IR view



Figure 19 – B4 Position 4 – Start



Figure 20 – B4 Position 4 – End IR view



Figure 21 – B4 Position 5 – Start



Figure 22 – B4 Position 5 – End IR view



TMA Environmental Consultants

2 The Stables, Cannons Mill Lane, Bishop's Stortford CM23 2BN

0845 094 3268 | info@tma-consultant.co.uk | www.tma-consultants.co.uk

TMA Environmental Consultants is a trading name of Tim Moya Tree Services Ltd. Company registration number: 03028475