



MKA
ECOLOGY

Preliminary Roost Assessment

Pease House, The Priory, Hitchin

Site	Pease House, The Priory, Hitchin
Project number	262012
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Declaration of compliance

This Preliminary Roost Assessment has been undertaken in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development”. The information which we have provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.



MKA Ecology Ltd is a CIEEM Registered Practice. This means that MKA Ecology Ltd are formally recognised for high professional standards, working at the forefront of our profession.

Validity of data

Unless stated otherwise the information provided within this report is valid for a maximum period of 18 months from the date of survey. If works at the site have not progressed by this time an updated site visit may be required in order to determine any changes in site composition and ecological constraints.

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1. EXECUTIVE SUMMARY

In April 2026 MKA Ecology Ltd was commissioned to undertake a Preliminary Roost Assessment at Pease House, The Priory, Hitchin. A site visit was undertaken on 28 April 2026.

The Site comprises one building, four trees, modified grassland, introduced shrub, non-native hedgerows and developed land. The proposed development involves onsite landscaping enhancements and external alterations to Pease House including impacts to the roof structure. There are no plans to directly impact any of the onsite trees.

The purpose of the survey was to identify bat roosts or bat roost suitability associated with the development site, evaluate likely ecological impacts and provide recommendations for any required further survey work, mitigation and/or habitat enhancements.

The survey comprised a desktop study, an internal and external inspection of Pease House and ground-level assessments of the onsite trees.

No potential roost features (PRFs) were identified within Pease House, and the building was assessed as containing negligible potential to support roosting bats. Trees TB1-3 were assessed as containing no potential to support roosting bats and TB4 was categorised as PRF-M as a number of PRFs, with the potential to support multiple bats, were identified.

Due to Pease House containing negligible potential to support roosting bats, no further survey work or mitigation is required for the works to this building.

The proposed works are not anticipated to impact TB4, however, if proposed plans change and impacts are unavoidable, further surveys would be required to ensure no risks of damage or disturbance to a bat roost. It is recommended that TB4 is retained and protected during the proposed works. The tree should also remain unlit both during and post-construction. To avoid potential disturbance of bat roosts, a construction exclusion zone should be set up around TB4 to include the root protection area (RPA) as defined by an arboriculturist. Details of these measures should be provided in a Construction Ecological Management Plan (CEcMP).

Light pollution should be minimised both during and after the construction phase and a sensitive lighting scheme should be developed to allow for suitable roosting and foraging areas for bats within and adjacent to the Site.

Opportunities exist to enhance the Site's suitability to support roosting bats. It is recommended that provisions are made for roosting bats at the Site post-development, to include a minimum of two bat boxes.

2. INTRODUCTION

2.1. Aims and scope of the report

In April 2026 MKA Ecology Ltd was commissioned to undertake a Preliminary Roost Assessment at Pease House, The Priory, Hitchin by Metric and Maker in order to support a planning application for onsite landscaping enhancements and external alterations to Pease House.

The aims of the Preliminary Roost Assessment were to:

- Undertake a Preliminary Roost Assessment to establish the suitability of the buildings and trees at the site for roosting bats, and record any evidence of bat presence;
- Identify likely ecological impacts relating to the proposed development;
- Assess the need for further survey effort, a European Protected Species Licence or mitigation, if required; and
- Propose any suitable habitat enhancements for bat species, if required.

This report must be read in conjunction with the Preliminary Ecological Appraisal (MKA Ecology, 2026), with respect to bats, this report supersedes the findings and recommendations given in MKA Ecology (2026).

2.2. Site description and context

The survey area is shown on the map in Figure 1. Within this report this area is referred to as the Site or Pease House, The Priory, Hitchin. The 0.33ha Site (centred around grid reference TL 18231 28741) is located in the south-west of Hitchin and falls under the jurisdiction of North Hertfordshire District Council.

One building (Pease House) and four trees (TB1-4) are present onsite. Three of the onsite trees are native Common Lime *Tilia × europaea* (TB1, TB3 and TB4) and the other is a non-native Golden chain tree *Laburnum* sp. (TB2). Other onsite habitats include modified grassland, introduced shrub, non-native hedgerows and developed land. The River Hiz is located approximately 30m south-east of the boundary, and the A602 Park Way is located to the south-west.

2.3. Proposed development

The proposed development involves onsite landscaping enhancements and external alterations to Pease House including impacts to the roof structure. There are no plans to directly impact any of the onsite trees.

2.4. Legislation and planning policy

This Preliminary Roost Assessment has been undertaken with reference to relevant wildlife legislation and planning policy.

Relevant legislation considered within the scope of this document comprised the following:

- The Conservation of Habitats and Species Regulations (as amended);
- The Wildlife and Countryside Act 1981 (as amended); and
- The Natural Environment and Rural Communities (NERC) Act 2006.

Further information is provided in Appendix 1.

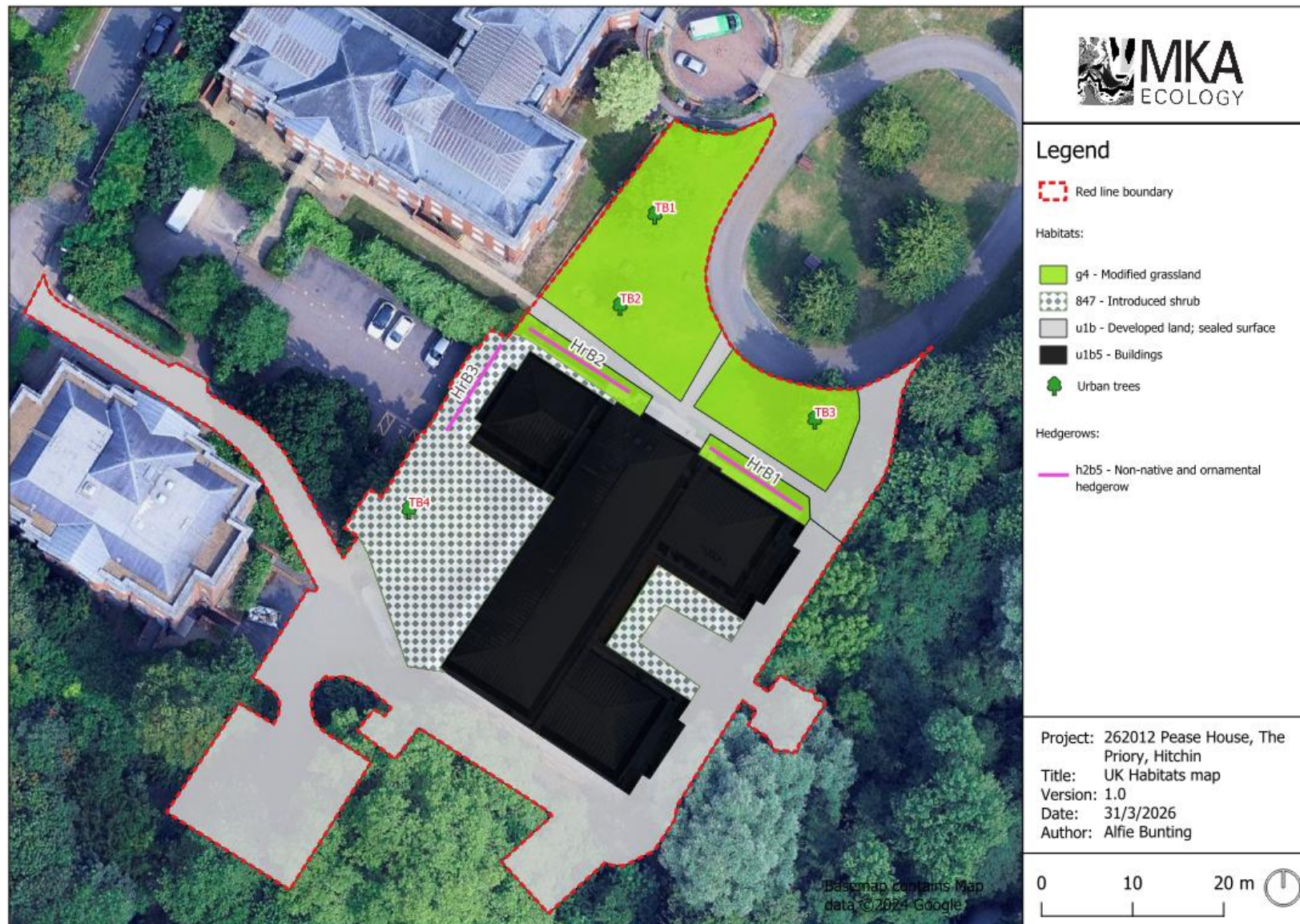
In addition to obligations under wildlife legislation, the revised National Planning Policy Framework (NPPF) updated on 12 December 2024 requires planning decisions to contribute to conserving and enhancing the local environment. Further details are provided in Appendix 1.

North Hertfordshire District Council has produced an adopted Local Plan (North Hertfordshire District Council, 2022) which covers policies relating to biodiversity and habitat conservation, including:

- Policy SP1: Sustainable development in North Hertfordshire
- Policy SP9: Design and Sustainability
- Policy SP12: Green infrastructure, landscape and biodiversity

Where relevant these are discussed in further detail in Section 5. Relevant excerpts from each policy are set out in more detail in Appendix 1.

Figure 1: UK Habitat Classification map of Pease House, The Priory, Hitchin



3. METHODOLOGY

3.1. Desktop study

A data search was conducted for the Site and the surrounding area within 2km. Data was retrieved from the sources listed in Table 1. A Preliminary Ecological Appraisal was conducted on 10 March 2026 (MKA Ecology, 2026).

Table 1: Sources of data for desktop study

Organisation	Data collected	Date collected
Multi-agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk	Information on local, national and international statutory protected areas.	12/03/2026
Herts Environmental Record Centre	Information on protected and notable sites and species within 2km of the Site (TL18220 28772).	12/03/2026
Ordnance Survey maps and aerial photography	Information on habitats and connectivity between the Site and the surrounding landscape	12/03/2026

3.2. Preliminary Roost Assessment

The Site contained one building and four trees. Inspected buildings and trees were Pease House, TB1, TB2, TB3 and TB4 and are shown in Figure 1.

An internal and external inspection of Pease House and ground-level assessments of trees TB1-4 were undertaken following guidance set out in *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* (Collins, 2023). The survey was conducted using a variety of equipment including a ladder, digital video endoscope, inspection mirrors, binoculars, high-powered torches and a digital camera.

The following features were recorded for buildings:

- Location;
- Type;
- Dimensions;
- Age;
- Construction materials; and
- Current use.

Descriptions of potential and actual access points and roosting places were recorded (including height above ground level and aspect), as well as descriptions of evidence of bats found. The following types of evidence of use by bats were recorded:

- Location and number of any live bats;
- Location and number of any bat corpses or skeletons;
- Locations and number of bat droppings;
- Notes on relative freshness, shape and size of bat droppings;
- Location and quantity of any bat feeding remains;
- Location of clean, cobweb-free timbers, crevices and holes;
- Location of characteristic staining from urine and/or grease marks;
- Location and quantity of bat-fly (Nycteribiidae) pupal cases;
- Location of known and potential access points to the roost; and
- Location of the characteristic smell of bats.

The building was assessed for its bat roost suitability according to the scheme presented in Collins (2023). These categories are shown in Table 2.

Table 2: Categories to assess roost suitability in buildings (adapted from Collins, 2023)

Roost suitability	Description
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e., a complete absence of crevices/suitable shelter at all ground/underground levels)
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions* and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e., unlikely to be suitable for maternity and not a classic hibernation site).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).

Roost suitability	Description
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potential for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have potential to support high conservation status roosts e.g., maternity or classic hibernation site.

*For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

The following features were recorded for trees:

- Species; and
- Diameter at breast height.

Descriptions of suitable and actual roost features were recorded (including height above ground level and aspect), as well as descriptions of evidence of bats found. Potential roost features (PRFs) recorded were:

- Woodpecker holes;
- Rot holes;
- Hazard beams;
- Other vertical or horizontal cracks and splits (such as frost-cracks) in stems or branches;
- Partially detached plately bark;
- Knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar;
- Man-made holes (e.g. cavities that have development from flush cuts) or cavities created by branches tearing out from parent stems;
- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt-rots;
- Double-leaders forming compression forks with included bark and potential cavities;
- Gaps between overlapping stems or branches;
- Partially detached ivy with stem diameters in excess of 50mm; and
- Bat, bird or dormouse boxes.

The following types of evidence of use by bats were recorded for trees:

- Presence of bats;
- Bat droppings in, around or below a potential roost feature;
- Odour emanating from a potential roost feature;
- Audible squeaking at dusk or in warm weather; and

- Staining below the potential roost feature.

The overall potential of each tree to support roosting bats and each PRF found within a tree were assessed for their bat roost suitability according to the schemes presented in Collins (2023). These categories are shown in Table 3 and Table 4.

Table 3: Guidelines for categorising the potential suitability of trees for bats (Collins, 2023)

Roost suitability	Description
None	Either no PRFs in the tree or highly unlikely to be any.
FAR	Further assessment required to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

Table 4: Guidelines for categorising the potential suitability of PRFs on trees (Collins, 2023)

Roost suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats, either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

3.3. Surveyor, author and reviewer

The survey was undertaken by Alfie Bunting and Marielle James MCIEEM. Alfie is a Consultant Ecologist at MKA Ecology Ltd with over five years' experience as a consultant ecologist. Marielle is a Principal Ecologist at MKA Ecology Ltd with over ten years' experience as a consultant ecologist and holds a Level 2 bat licence issued by Natural England. The report has been written by Alfie and reviewed by Marielle.

3.4. Date, time and weather conditions

See Table 5 below for details of the date, time and prevailing weather conditions recorded during the Site visit.

Table 5: Date, time and weather conditions of survey visit

Date	Time of survey	Weather conditions*
28/04/2026	09:30	Wind: 3 Cloud: 4 Temp: 9

		Rain: None
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*Wind as per Beaufort Scale / Cloud cover given in Oktas.

3.5. Constraints

It should be noted that a single visit cannot categorically ascertain the presence or absence of bats. However, an assessment is made of the likelihood for protected species to occur based on habitat characteristics and the ecology of each species. Where there is suitable habitat for bats, additional survey work may be required to ascertain their presence or absence.

3.6. Assessment

The guidelines for categorisation of bats in England by distribution and rarity (adapted from Reason and Wray 2023) are shown in the tables below.

Table 6: Categorising bats by rarity (South-eastern/East Anglia to The Wash)

Rarity within England	Species
Rarest Annex II species and very rare	- Alcathoe's Bat <i>Myotis alcathoe</i> - Barbastelle <i>Barbastella barbastellus</i>
Rarer or restricted distribution	- Whiskered Bat <i>Myotis mystacinus</i> - Brandt's Bat <i>Myotis brandtii</i> - Leisler's Bat <i>Nyctalus leisleri</i> - Nathusius' Pipistrelle <i>Pipistrellus nathusii</i> - Serotine <i>Eptesicus serotinus</i>
Widespread in many geographies, but not abundant in all	- Noctule <i>Nyctalus noctula</i> - Daubenton's Bat <i>Myotis daubentonii</i> - Natterer's Bat <i>Myotis nattereri</i>
Widespread	- Common Pipistrelle <i>Pipistrellus pipistrellus</i> - Soprano Pipistrelle <i>Pipistrellus pygmaeus</i> - Brown long-eared Bat <i>Plecotus auritus</i>

Table 7: Level of importance of roost type

Geographic frame of reference	Roost type
Site, District, Local or Parish	Feeding perches Non-breeding day roosts Mating sites (excluding individual trees and swarming sites)

Geographic frame of reference	Roost type
	Small numbers of hibernating bats Larger transitional roosts Maternity sites (for widespread species, unless colony atypically large)
County	Hibernation sites (excluding rarest Annex II species) Maternity sites (for widespread but not abundant in all geographies species unless colony atypically large) Autumn swarming sites (can reach regional importance depending on assemblage)
Regional	Maternity sites (depending on rarity and value of assemblage) Hibernation sites (for rarest Annex II species, depending on assemblage and size)
National/UK	Sites meeting SSSI guidelines*
International	SAC sites

*Sites meeting SSSI (Sites of Special Scientific Interest) selection guidelines include Barbastelle maternity roosts and mixed species hibernacula assemblages

4. RESULTS

4.1. Desktop study

The ecological desktop study completed by Hertfordshire Environmental Record Centre (HERC) in a 2km radius surrounding the Site returned 176 bat records, which included both roost records and activity records. These records consisted of eight bat species; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Natterer's bat *Myotis nattereri*, Daubenton's bat *Myotis daubentonii*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus*, barbastelle *Barbastella barbastellus* and brown long-eared bat *Plecotus auritus*. Additionally, the search returned records of unidentified bat species and pipistrelle species. This is considered to be a high diversity of species for this location.

Almost all of the records provided by the search did not contain accurate location data. Of the two records with accurate location data, the closest dated from 2020 and was of a pipistrelle bat not identified to species level that was observed foraging approximately 0.78km north-west of the Site.

A search of Defra's MAGIC website returned no European Protected Species Licences granted for bats within 2km of the Site boundary.

4.2. Preliminary Roost Assessment

Roosting bats

No PRFs or evidence of bats were identified during the inspection of Pease House and therefore was assessed as containing negligible potential to support roosting bats. Trees TB1-3 were assessed as containing no potential to support roosting bats and TB4 was categorised as PRF-M due to containing PRFs with the potential to support multiple bats.

Table 8 and Table 9 below outline the results of the Preliminary Roost Assessment in more detail. These results are also presented in Figure 2.

Table 8: Building inspection results

Building	Bat roost suitability	Description	Bat roost evidence and potential	Photograph
Pease House	Negligible	A three-storey building constructed of brick. The building has a complex roof structure in four sections. Each roof section consists of a central shallow-pitched and hipped top, steep pitched sides and an area of flat roof around its perimeter. The top of each section consists of well-sealed metal sheeting, and the steep pitched sides consist of slate tiles.	No direct evidence of bats and no PRFs were recorded. The structure was well-sealed both externally (Photographs 2-4, Appendix 2) and internally (Photographs 5-7, Appendix 2).	

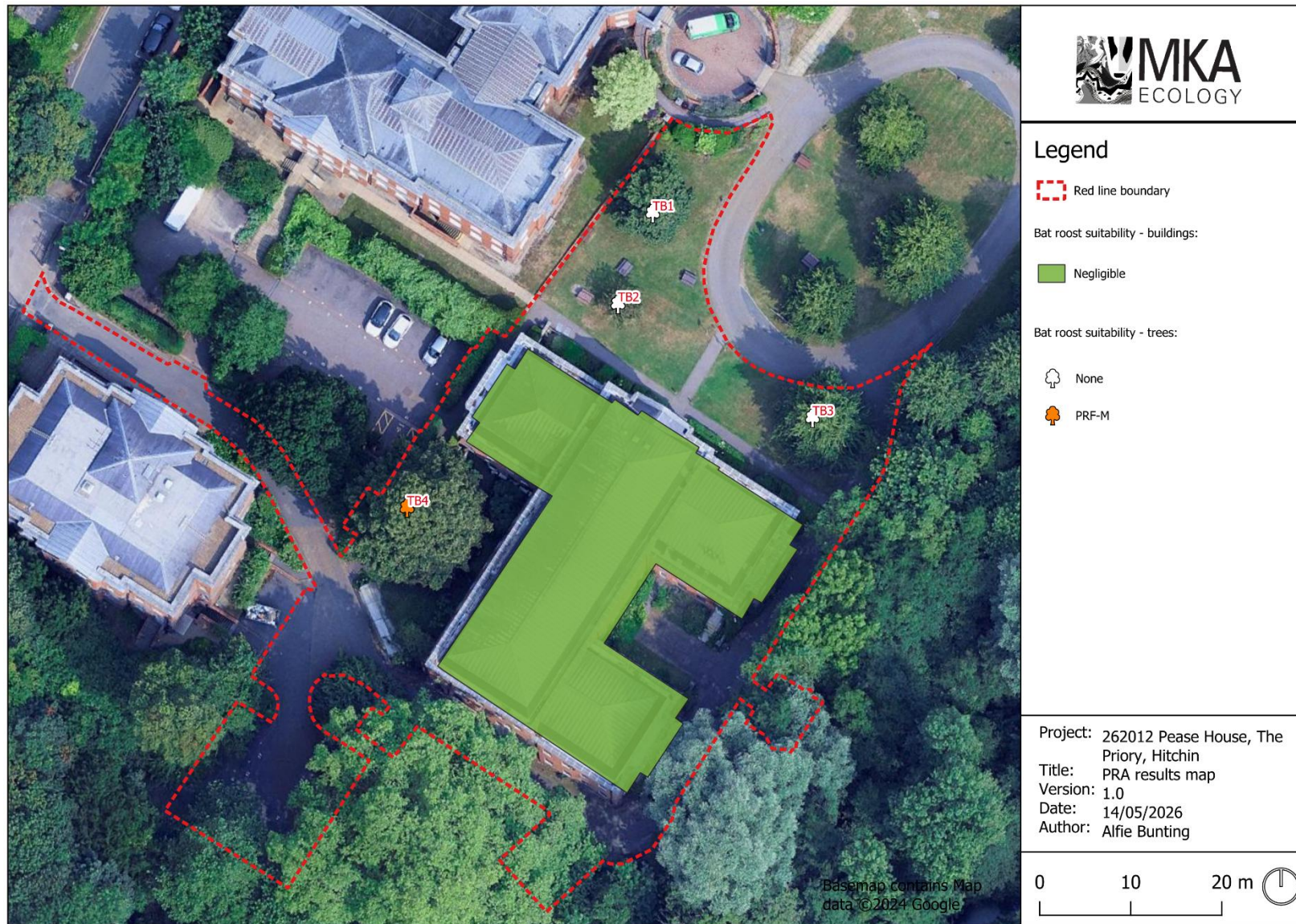
Table 9: Tree inspection results

Tree	Species	Roost suitability	Descriptions of potential/actual roost features
TB1	Common Lime	None	No PRFs present (Photograph 8, Appendix 2).
TB2	Golden chain	None	No PRFs present (Photograph 9, Appendix 2).
TB3	Common Lime	None	No PRFs present (Photograph 10, Appendix 2).
TB4	Common Lime	PRF-M	PRF1: Limb extending to the west has a pruning cut that may extend down into a cavity (Photograph 12, Appendix 2). This feature is approximately 3m high. PRF2: Limb extending to the south-west has a pruning cut at the junction between the limb and main stem that may extend down into a cavity (Photograph 13, Appendix 2). This feature is approximately 3m high. PRF3: A pruning cut is present on the main stem that may extend down into a cavity (Photograph 13, Appendix 2). This feature is directly above PRF2 and is approximately 4m high. PRF4: Limb extending to the east has a pruning cut that may extend into the limb (Photograph 14, Appendix 2). This feature is approximately 5m high. PRF5: Limb extending to the north-west has a shallow pruning cut on its end. This feature is approximately 3m high.

Foraging and commuting bats

The onsite modified grassland, introduced shrub and trees have limited suitability for foraging and commuting bats. The adjacent habitats to the east and south-east of the Site such as the woodland and the River Hiz provide a higher suitability for foraging and commuting bats. The suitability of the Site to support foraging and commuting bats is considered low.

Figure 2: Preliminary Roost Assessment results map for Pease House, The Priory, Hitchin



5. EVALUATION AND RECOMMENDATIONS

The following evaluation and recommendations are based on the Preliminary Roost Assessment carried out on 28 April 2026.

Roosting bats - buildings

The Preliminary Roost Assessment of Pease House identified that it has negligible potential to support roosting bats. Therefore, no further survey work or mitigation is required for the works to this building.

Roosting bats - trees

Of the four trees present onsite, three (TB1, TB2 and TB3) were assessed as having negligible potential to support roosting bats and one (TB4) was categorised as PRF-M as a number of PRFs, with the potential to support multiple bats, were recorded.

All bat species are protected under Schedule 5 of the Wildlife and Countryside Act 1981 and Schedule 2 of Conservation of Habitats and Species Regulations 2017. It is an offence to deliberately disturb a bat, damage or destroy a bat roost, intentionally or recklessly disturb a bat at a roost, or obstruct access to a roost.

The proposed works are not anticipated to impact TB4 and it is recommended that the tree is retained and protected during the proposed works. The tree should also remain unlit both during and post-construction. To avoid potential disturbance of bat roosts, a construction exclusion zone should be set up around TB4 to include the entire root protection area (RPA) as defined by an arboriculturist. Details of these measures should be provided in a Construction Ecological Management Plan (CEcMP).

Recommendation 1

Retain and protect TB4 throughout the development and ensure it remains unlit both during and post-construction. Ensure construction exclusion zones around TB4. Details of these measures should be provided in a CEcMP.

If proposed plans change and impacts to TB4 are unavoidable, then advice should be sought from a suitably qualified ecologist and further survey work will be required to minimise the risk of damage, destruction or disturbance of a potential bat roost.

Recommendation 2

Seek ecological advice if plans change and impacts to TB4 are unavoidable.

Foraging and commuting bats

Bat commuting and foraging activity, in addition to roosting behaviour, can be dramatically affected by artificial lighting (BCT and ILP, 2023). It is strongly recommended that any proposed exterior lighting on the new buildings is designed and managed appropriately to ensure that the area remains suitable for foraging bats. In particular, the woodland adjacent to the Site's southern boundary should remain unlit. A sensitive lighting scheme should be developed to allow suitable roosting and foraging areas for bats.

Recommendation 3

Light pollution from any lighting should be minimised both during and after the construction phase. A sensitive lighting scheme should be developed and secured through a planning condition to allow for suitable roosting and foraging areas for bats within the Site.

The wider landscape has the potential for use by foraging bats. With this in mind, enhanced opportunities for roosting bats should be provided at the Site through installation of bat boxes. It is recommended that at least two bat boxes are incorporated into the Site design. Examples of suitable boxes are shown in Appendix 3 together with information concerning the correct siting of these enhancement features.

Recommendation 4

Provisions should be made for roosting bats at the Site post-development, to include a minimum of two bat boxes.

6. CONCLUSIONS

No PRFs or evidence of bats was identified within Pease House, and the building was assessed as having negligible potential to support roosting bats. No further survey work or mitigation is required for the works to this building.

Trees TB1-3 were assessed as having no potential to support roosting bats and TB4 was categorised as PRF-M as a number of PRFs, with the potential to support multiple bats, were identified. It is recommended that TB4 is retained and protected during the proposed works. The tree should also remain unlit both during and post-construction. To avoid potential disturbance of bat roosts, a construction exclusion zone should be set up around TB4 to include the entire root protection area (RPA) as defined by an arboriculturist. Details of these measures should be provided in a CEcMP. If plans change and impacts to TB4 are unavoidable, then advice should be sought from a suitably qualified ecologist and further survey work will be required.

The habitats on and adjacent to the Site are suitable to support foraging and commuting bats and some adjacent habitats may also have potential to support roosting bats. It is recommended that light pollution is minimised both during and after the construction phase and a sensitive lighting scheme is developed to allow for suitable roosting and foraging areas for bats within and adjacent to the Site.

Opportunities exist to enhance the Site's suitability to support roosting bats. It is recommended that provisions are made for roosting bats at the Site post-development, to include a minimum of two bat boxes.

7. REFERENCES

BCT and ILP (2023). *Bats and artificial lighting at night. Bats and the Built Environment series, Guidance Note 08/23*. Bat Conservation Trust (BCT) and Institute of Lighting Professionals (ILP).

British Standards Institution (2013) *British Standard 42020:2013, Biodiversity – Code of practice for planning and development*. British Standards Institution: London.

CIEEM (2025) *Code of Professional Conduct*. Chartered Institute of Ecology and Environmental Management (CIEEM): Winchester.

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

MKA Ecology Ltd. (2026) *Pease House, The Priory, Hitchin – Preliminary Ecological Assessment*. MKA Ecology: Cambridge.

Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Chartered Institute of Ecology and Environmental Management (CIEEM): Winchester.

8. APPENDICES

8.1. Appendix 1: Relevant wildlife legislation and planning policy

Please note that the following is not an exhaustive list and is solely intended to cover the most relevant legislation pertaining to species commonly associated with development sites.

Subject	Legislation (England)	Relevant criminal offences
Bats (all UK species)	Schedule 2 of Conservation of Habitats and Species Regulations (2017)	• Deliberately capture, injure or kill a bat; • Deliberately disturb a bat (disturbance is defined as an action which is likely to: (i) Impair their ability to survive, to breed or reproduce, or to rear or nurture their young; (ii) Impair their ability to hibernate or migrate; or (iii) Affect significantly the local distribution or abundance of the species); • Damage or destroy a bat roost; • Intentionally or recklessly disturb a bat at a roost; or • Intentionally or recklessly obstruct access to a roost. In this interpretation, a bat roost is "<i>any structure or place which any wild [bat]...uses for shelter or protection</i>". Legal opinion is that the roost is protected whether or not the bats are present at the time.

	Wildlife and Countryside Act 1981 (as amended) All bat species are listed on Schedule 5 and are therefore subject to parts of the provisions of Section 9 (Sections 9(4)(b) and (c) and Section 9(5)).	• Intentional or reckless disturbance of a bat while it is occupying a roost; • Intentional or reckless obstruction of access to a roost; • To sell, expose for sale, possess or transport for the purpose of sale, any live or dead bat or any part of, or anything derived from a bat; or • Publishing or causing to be published any advertisement likely to be understood as conveying that an individual buys or sells, or has an intention to buy or sell bats. In this interpretation, a bat roost is "<i>any structure or place which any wild [bat]...uses for shelter or protection</i>". Because bats tend to reuse the same roosts, bat roosts are considered to be protected whether or not the bats are present at the time.
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The Conservation of Habitats and Species Regulations 2017 (as amended)

Full legislation text available at: [The Conservation of Habitats and Species Regulations 2017 \(as amended\) \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2017/69/contents)

The Wildlife and Countryside Act 1981 (as amended)

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>.

Section 41 of Natural Environments and Rural Communities (NERC) Act 2006

Full legislation text available at: <http://www.legislation.gov.uk/ukpga/2006/16/section/41>

Several bat species are listed as species of principal importance for the purpose of conserving biodiversity under Section 41 of the NERC Act 2006.

The NERC Act 2006 places a legal obligation on public bodies, including those considering planning applications, to maintain, and where possible enhance, the conservation status of any Section 41 species found on a site. Species included on Section 41 were also included on the UK Biodiversity Action Plan (BAP) and remain an integral part of the Post-2010 Biodiversity Framework.

These species are:

- Barbastelle *Barbastella barbastellus*;
- Bechstein's Bat *Myotis bechsteinii*;
- Brown Long-eared Bat *Plecotus auritus*;
- Greater Horseshoe Bat *Rhinolophus ferrumequinum*;
- Lesser Horseshoe Bat *Rhinolophus hipposideros*;
- Noctule *Nyctalus noctula*; and
- Soprano Pipistrelle *Pipistrellus pygmaeus*.

National Planning Policy Framework (NPPF)

Full text is available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>.

The revised NPPF was updated on 12 December 2024 setting out the Government's planning policies for England and the process by which these should be applied. The policies within the NPPF are a material consideration in the planning process. The key principle of the NPPF is a presumption in favour of sustainable development, with sustainable development defined as a balance between economic, social and environmental needs.

Policies 187 to 201 of the NPPF address conserving and enhancing the natural environment, stating that the planning system should:

- Contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes;
- Recognise the wider benefits of ecosystem services; and
- Minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs.

Furthermore, there is a focus on re-use of existing brownfield sites or sites of low environmental value as a priority, and discouraging development in and around National Parks, Sites of Specific Scientific Interest, the Broads, and National Landscapes other than in exceptional circumstances.

Where possible, planning policies should also:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas

identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Local policy

North Herts Council has produced an adopted Local Plan which covers a number of policies relating to biodiversity and habitat conservation, including:

- Policy SP1: Sustainable development in North Hertfordshire - Grant planning permission for proposals that, individually or cumulatively: (iv) protect key elements of North Hertfordshire's environment including biodiversity, important landscapes, heritage assets and green infrastructure (including the water environment); and (v) secure any necessary mitigation measures that reduce the impact of development, including on climate change.
- Policy SP9: Design and Sustainability – (C) Require Strategic Masterplans and planning applications for Strategic Housing Sites and significant development to (as applicable): (vi) create and accessible multi-functional green infrastructure network that provides: a high-quality integrated network to support ecological connectivity, biodiversity net gain, climate adaptation and mitigation linking into the wider Ecological Network.
- Policy SP12: Green infrastructure, landscape and biodiversity – States that it will accommodate significant growth during the plan period whilst ensuring the natural environment is protected and enhanced and will:
 - Protect, identify, manage and where possible enhance a strategic multi-functional network of green infrastructure;
 - Consider and respect landscape character, scenic beauty and locally sensitive features, particularly in relation to the Chilterns Area of Outstanding Natural Beauty;
 - Protect, enhance and manage designated sites in accordance with the following hierarchy of designations and features:
 - Internationally designated sites
 - Nationally designated sites
 - Locally designated sites;
 - Non-designated sites that include important habitats and species
 - Protect, enhance and manage biodiversity networks including wildlife corridors, ancient woodlands and hedgerows, wetland and riverine habitats, Local Geological Sites, protected species, priority species and habitats, and non-designated sites of ecological value and ensure measurable net gains for biodiversity;
 - Protect other open spaces and support provision of new and improved open space.

8.2. Appendix 2: Site photographs

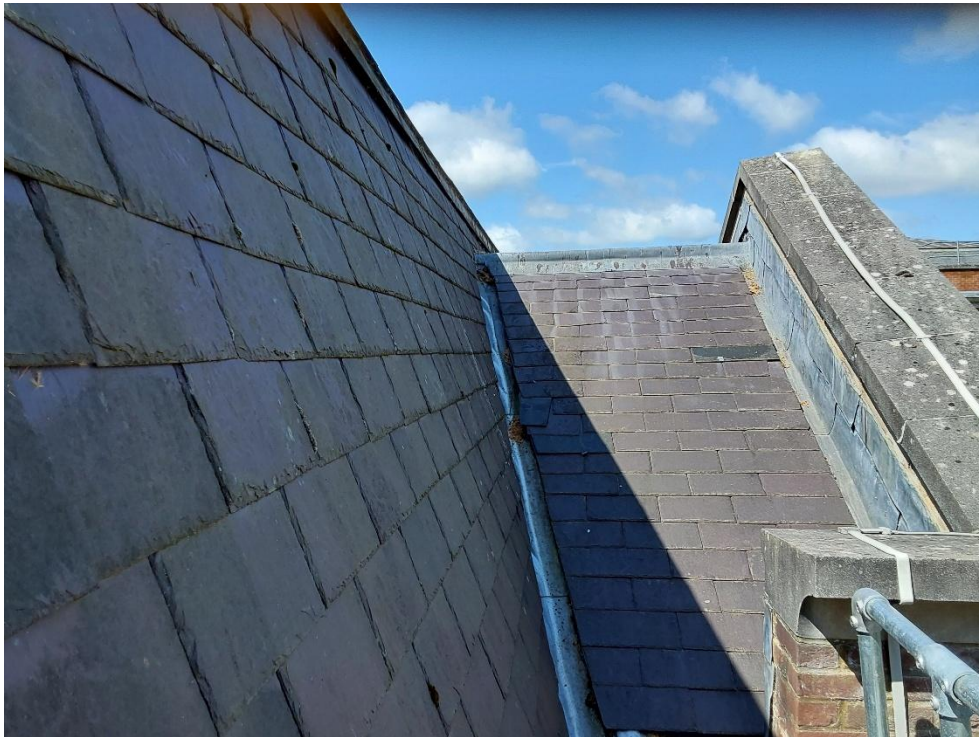
Photograph 1: Pease House (north-east aspect)



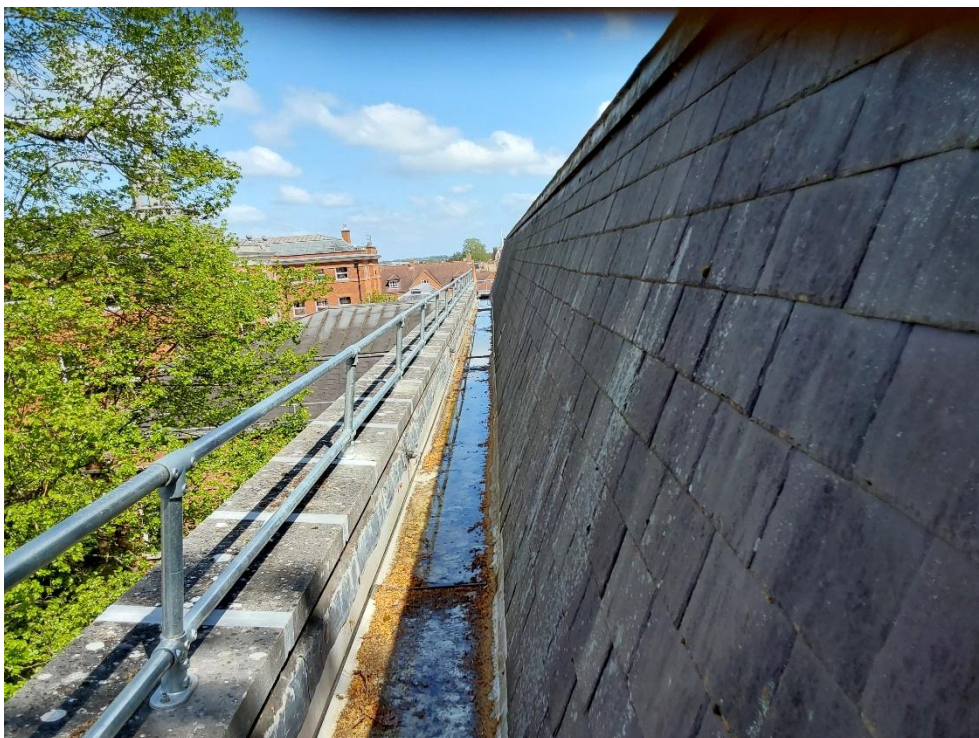
Photograph 2: South-east roof section



Photograph 3: Slate tiles on roof



Photograph 4: Slate-tiled and flat sections of the roof



Photograph 5: Internal view of a roof cavity



Photograph 6: Internal view of a roof cavity



Photograph 7: Internal view of the main central roof cavity



Photograph 8: Tree TB1



Photograph 9: Tree TB2



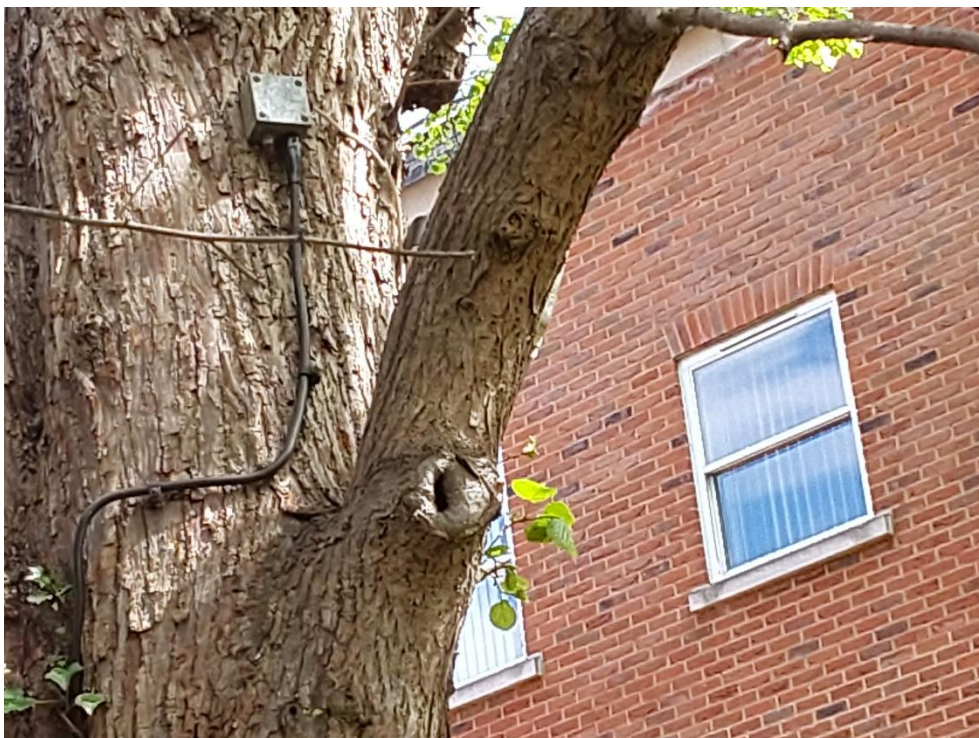
Photograph 10: Tree TB3



Photograph 11: Tree TB4



Photograph 12: PRF1 within tree TB4



Photograph 13: PRF2 and PRF3 within tree TB4



Photograph 14: PRF4 within tree TB4



8.3. Appendix 3: Bat box recommendations

A wide range of bat boxes are available to suit a variety of species and design requirements. Bat boxes can be mounted externally on buildings, built directly into the wall structure or mounted on trees (dependent on box design).

Boxes are more likely to be inhabited if they are located where bats feed and it may help to place the box close to features such as tree lines or hedgerows, which bats are known to use for navigation and can provide immediate cover for bats leaving the roost. Boxes should be placed in areas sheltered from strong winds and are exposed to the sun for part of the day. Access to any bat roosting features should not be lit and should also be at a reasonable height to avoid predation (at least 2m if possible, preferably 4-5m).

Maternity roosts need warmth and should be sited on a southerly or western aspect. Male roosts and winter hibernation roosts are best positioned on a northerly aspect. Materials for roosts should be rough for grip, non-toxic or corrosive and with no risk of entanglement.

Bat boxes for buildings

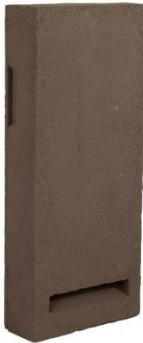
Externally mounted

Example	Description	Picture
Beaumaris bat box	https://www.wildcare.co.uk/beaumaris-bat-box.html Dimensions: Small: (h) 40 x (w) 28 x (d) 6.5 cm, Large: (h) 50 x (w) 38 x (d) 6.5 cm Weight: 8kg Installation: attach to external walls Suitable for crevice dwelling bats, this bat box is made from 100% woodstone and is available in two sizes. These boxes have a rough interior to provide grip. They have good thermal insulation, reducing temperature fluctuations within the box. They are painted black to best absorb the sun's heat, which is important as bats need to increase their body temperature before they emerge in the evening. Self-cleaning.	

Example	Description	Picture
Vivara Pro Low Profile Woodstone bat box	https://www.nhbs.com/low-profile-woodstone-bat-box Dimensions: (h) 440 x (w) 290 x (d) 90 mm, Weight: 4.7 kg Installation: attached to external walls at least 3m high. This box is manufactured from WoodStone, a breathable and insulating material made from concrete and FSC Certified wood fibres. WoodStone is designed to be robust and hard-wearing, providing a warm and stable temperature for summer bat roosts. Self-cleaning.	

Integrated

Example	Description	Picture
Ibstock brick enclosed bat boxes	https://ibstockbrick.co.uk/kevington/eco-products/ Dimensions: 215 x 215 or 215 x 290 (mm) These boxes are ideal for new-build homes and are designed specifically for pipistrelle bats. They come in a range of sizes brick types. They are self-cleaning, so require no maintenance.	
Habibat integrated bat boxes	https://www.habibat.co.uk/bat-boxes These integrated bat boxes are made of insulating concrete which provides an internal roost space and can be integrated into the fabric of a building as it is built or renovated. They offer boxes in a range of sizes and styles, and can all be customised with a range of finishes. This includes, brick, block, stone, wood	

Example	Description	Picture
	or a rendered finish, ensuring the box is unobtrusive and aesthetically pleasing.	
Vivara Pro Build-in Woodstone Bat Tube	https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox Dimensions: 21cm (W) x 50cm (H) x 7.7cm (D) Designed to be built into the masonry of external walls or beneath a rendered surface and provides the maximum internal space across two cavities. It is manufactured from hard-wearing WoodStone and plywood with removable side panels so that several boxes can be placed side by side. WoodStone is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so condensation problems and WoodStone maintains a consistent temperature inside, providing excellent insulation for roosting bats. This tube requires no maintenance as droppings fall out of the entrance ramp.	

Bat tiles

Bat tiles are designed to ensure that roosting opportunities remain available for bats within new roofs, providing access points under the roofing felt or the roof void. Below is a list of suppliers.

Example	Description	Picture
Tudor roof tiles	https://www.tudorrooftiles.co.uk/bat.html Tile dimensions (approx.): 255 x 150mm These tiles are designed to fit into a row of roofing tiles and come in a variety of colour styles. The top tile has a raised tunnel and the two lower tiles have cutaway sections; in combination, these provide a roost	

Example	Description	Picture
	space for bats to crawl into. If the underfelt is opened then the tiles will also provide access to the loft space.	
Habibat tile	https://www.habibat.co.uk/bat-boxes A roof tile which has been modified to allow bats either under the roof felt or under the roof void. It is available in a number of different materials. It consists of a vacuum-moulded plastic cowl embedded into a tile of choice. The access cowl is designed to prevent rainwater ingress to the roof but is of correct size and roughened to be suitable for bats.	

Bat boxes for trees

Example	Description	Picture
Schwegler General Purpose Bat Box 2F	www.schwegler-nature.com Dimensions: 33 cm (height), 16cm (diameter) Weight: approx. 3.8 kg A general purpose box to hang on trees, suitable for all species. Made from durable woodcrete.	
Vivara Pro Woodstone bat box	https://www.nhbs.com/equipment Dimensions: (h) 250 x (w) 190 x (d) 165 mm, Weight: 4.5 kg This box is made from woodstone and it is designed to last for years. The box can be attached to either a wall or a tree and should be sited at a height of at least 3 m from the ground. Bats prefer to change roosts to benefit from varying ambient temperatures,	

Example	Description	Picture
	so bat boxes should ideally be clustered in small groups.	
Bark Boxes	https://www.barkboxes.co.uk/ Bark Boxes are constructed using a tough felt made of recycled polyamide combined with a cement and recycled cellulose fibre mix. The cellulose fibre will allow the outer layers to mellow and support lichens and mosses in time. Each box has a curved back to fit well on a tree. Boxes have endoscope holes for inspection and/or drainage holes. They come in a range of sizes and can be designed for crevice-dwelling and void-dwelling bats, including maternity chambers and hibernation boxes.	



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