

# Dusk Survey Results with inclusive pre-dusk inspection

June 2025

**Project Reference: PR-0416-24**

**Knowsley Village Hall**

School Lane

Knowsley

L34 9EN

**National Grid Reference: SJ 4341 9592**



**Knowsley Village Hall, School Lane, Knowsley, L34 9EN**  
**Dusk Survey Results in Relation to Bats**

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## Executive Summary

As part of an ongoing planning application with Knowsley Council (App. Ref.: 24/00258/FUL) at the former Knowsley Village Hall in Knowsley, Merseyside (termed 'the site'), Tyrer Ecological Consultants Ltd were commissioned to undertake dusk emergence surveys at the site; two dusk emergence surveys were carried out in May & June 2025, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023).

The survey was commissioned by the applicant Mr. B. Maguire; proposals are understood to involve the conversion of the existing building into three dwellings with associated landscaping and access.

## Bats

From the dusk survey results, it can be concluded that whilst using best practice survey methodology, emergence of bats was absent at the Knowsley Village Hall, with activity limited to sporadic foraging and commuting by a single common pipistrelle bat at a time.

*There are no further recommendations in relation to bat activity for Knowsley Village Hall.*

A cellar was located beneath the building, in which historic droppings attributable to pipistrelle and brown long-eared bats were identified. Given the age of the droppings and current absence of viable access points into the cellar for bats, it is considered unlikely that the cellar is an active hibernation roost.

*A Precautionary Working Method Statement to include timing of disruptive works, hibernation checks of the cellar, and creation of suitable mitigation/enhancement has been recommended in Section 5.6.*

Four trees were categorised as holding a roost potential of 'FAR'; however, are understood to be retained in full under the current development proposals.

*In order to prevent impacts to bats utilising trees for roosting or activity, the applicant might consider the use of bat-sensitive lighting (see Section 5.10).*

## Incidental Observations

Two INNS listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded within the application site boundary.

*Recommendations in relation to eradication of these species have been provided in Section 5.16 of this report.*

## Survey Validity

Bat emergence/re-entry surveys are typically **valid for a period of 12 – 18 months**; Ideally, the survey data should be from the most recent optimal survey season before a planning or licence application is submitted, however this is at the discretion of the Local Planning Authority and/or Natural England. Should your planning application not achieve consent, or a licence application (where required) not be applied for within this time period, updated surveys may be required.

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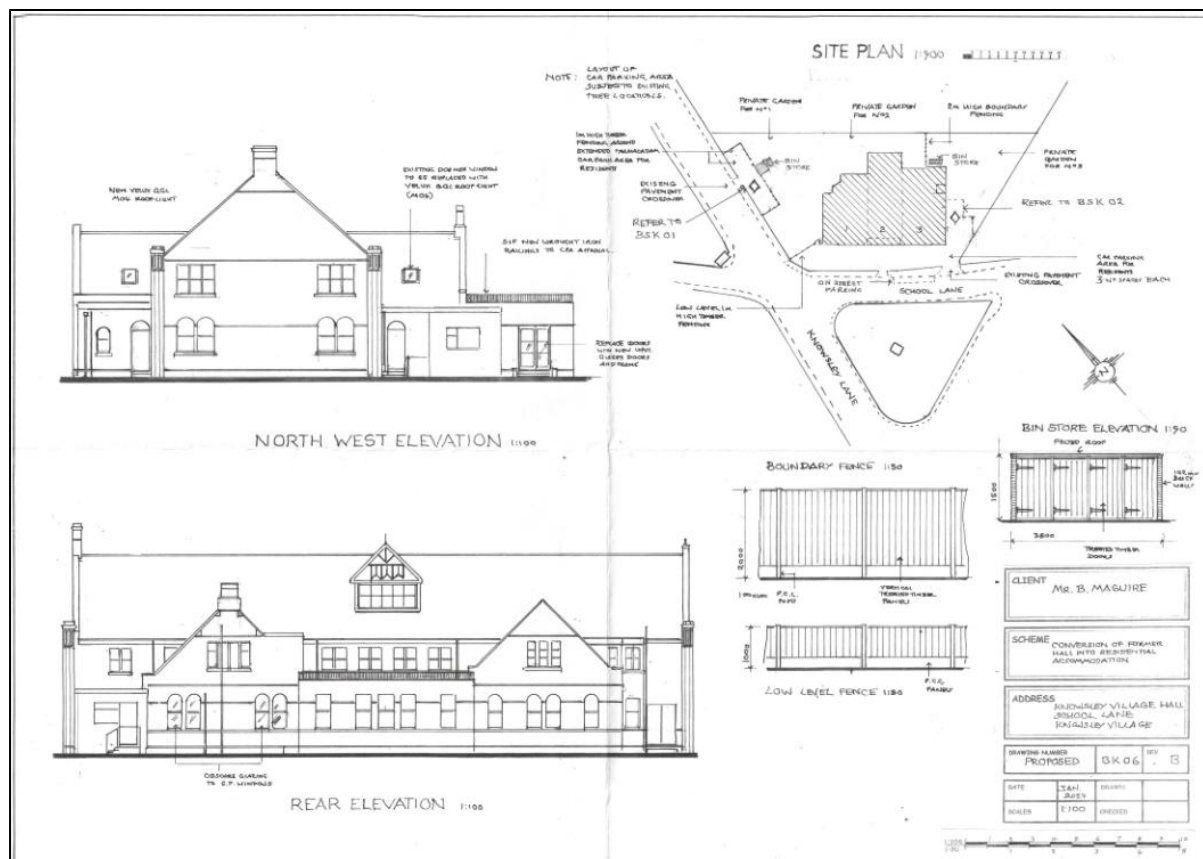
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**Appendix I:** *Village Hall, Knowsley Village – Preliminary Ecological Appraisal* (Sensible Ecological Survey Solutions Ltd, December 2024)

## 1.0 Background & Introduction

- 1.1 As part of an ongoing planning application with Knowsley Council (App. Ref.: 24/00258/FUL<sup>1</sup>) at the former Knowsley Village Hall in Knowsley, Merseyside (termed 'the site'), Sensible Ecological Survey Solutions Ltd carried out a Preliminary Ecological Appraisal (PEA) in November 2024.
- 1.2 The survey was commissioned by the applicant Mr. B. Maguire; proposals are understood to involve the conversion of the existing building into three dwellings with associated landscaping and access. See **Figure 1.1** for a proposed site plan.



- 1.3 Included within the PEA was a Preliminary Roost Assessment (PRA) of any built structures and trees on site in relation to bats. Based on the findings of the PRA, Knowsley Village Hall was categorised as pertaining to 'Negligible' bat roost suitability and no further surveys were recommended.
- 1.4 Knowsley Council provided a number of comments in relation to the planning application in April 2025, several of which pertain to bats:

### Bats

*The report states that no evidence of bat roosting was recorded and that the building is categorised as having negligible potential for roosting bats. The report states this is because the slate roofing, ridge tiling, stonework and brick work are all in good repair and well-sealed and that there are no enclosed roof chambers or other features within which bats could seek refuge internally.*

<sup>1</sup> See: <https://planapp.knowsley.gov.uk/online-applications/applicationDetails.do?activeTab=externalDocuments&keyVal=SDMMO6IX0OZ00>

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*The report also states that the mature trees to the south-east corner of the site were subject to a special inspection and all trees were assessed to have negligible potential for roosting bats.*

*The results of the bat inspection cannot be accepted. On-line imagery and the photographs within the Heritage Statement show gaps between the hipped roof and the flat roof and some gaps in the roof tiles and ridge tiles. In addition, the proposed works include ‘repair and repointing of all brick and stone work’ which indicates that the stone and brick work is not in the excellent state of repair reported in the ecology survey report.*

*With reference to the trees that were subject to inspection, the photograph of one of the trees included within the ecology report shows it to be heavily clad in Ivy. This is confirmed in the arboricultural survey. There is the potential that the Ivy has obscured a clear view of these trees and that potential roost features have been missed. In this instance the ecology report should have acknowledged this as a limitation and proceeded under the precautionary principle. Additionally, only the trees to the south - east of the site are reported to have been surveyed for potential roost features. The arboricultural report states that several trees to the south-west of the site are to be removed but there are no detailed descriptions of these trees included within the ecology report. These trees also require assessment for their potential to provide habitat for roosting bats.*

*In addition, a significant roost was recorded close to the site which was closed under licence (data obtained from Merseyside BioBank). The presence of a nearby roost increases the likelihood bats are present within the building. The site is also surrounded by optimal foraging and commuting habitat for bats which again, increases the likelihood of bats being present. Due to access points for bats being shown on on-line and report photographs, and that a significant roost was present nearby, it is considered that the building is of higher than negligible potential and further survey work of the building is required. A detailed description of all trees within the site and detailed assessment of their potential to provide habitat for roosting bats, in accordance with best practice guidance, to provide a robust evidence base. This further evidence is required before we can determine the planning application.”*

- 1.5 Tyrer Ecological Consultants Ltd were therefore commissioned to undertake a suite of additional surveys in relation to roosting bats, including an updated inspection of the building and trees, and two suitably spaced dusk emergence surveys on the basis of a roost potential of **‘Moderate’** (see **Figure 1.2** below), in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023).

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey <sup>a</sup> (structures). No further surveys required (trees).	Two separate dusk emergence survey visits <sup>b</sup> .	Three separate dusk emergence survey visits <sup>b</sup> .

**Figure 1.2 – BCT extract on ‘Moderate’ suitability survey implications**

- 1.6 The surveys aimed to provide an updated and accurate categorisation of roost potential at the site, and to identify the presence or reasonably conclude the absence of bats within the building. The results, conclusions and recommendations following the survey, including any indicative mitigation to inform an application to Natural England for a European Protected Species Mitigation Licence (EPSML), where necessary, will be supplied within this report.
- 1.7 This report supersedes the original PEA supplied as **Appendix I** (see Contents page) in relation to bats and their roosts.

## 2.0 Bats – Legislation & Policy

2.1 All British bats and their \*\*roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2019) (EU Exit). When dealing with cases where an EPS (all UK bats) may be affected, a planning authority is a competent authority within the meaning of Regulation 7 of the Regulations, and therefore has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

### 2.2 Uses of Buildings by Bats

- a) Summer breeding roost, and day/occasional roost (May – August)
- b) Hibernation roost (October – March)
- c) Transitional or temporary roost (other months)

2.3 Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance; climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

*\*\* The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to “a breeding site or resting place of such an animal” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.*

2.4 Up to ten bat species have been regularly recorded within Merseyside to date, many of which use built structures, notably occupied residential buildings, for roosting. The most frequently encountered bat species is the common pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Merseyside is reflected throughout the UK.

### Policy

2.5 Guidance for Local Authorities: Extract from Office of the Deputy Prime Minister – Circular 06/2005:

*“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision”.*

2.6 Paragraph 193 of the National Policy Planning Framework (as revised in December 2024) states:

*“When determining planning applications, local planning authorities should apply the following principles:*

*a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

*b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

*c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>2</sup> and a suitable compensation strategy exists; and*

*d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”*

2.7 The Knowsley Local Plan Core Strategy (January 2016) supports this in Policy CS8 ‘Green Infrastructure’ which states:

*“Knowsley’s existing Green Infrastructure and its beneficial functions will be protected, managed and/or enhanced, primarily to... ..sustain and promote biodiversity (including designated sites, priority habitats and protected and endangered species) in accordance with importance and contribution to ecological networks.”*

and:

*“New development must be served by Green Infrastructure to meet the needs of residents and the local environment, in a manner which will... ..provide adequate mitigation and/or, as a last resort, compensation for Green Infrastructure or biodiversity loss, in circumstances where harm resulting from the development is otherwise unavoidable.”*

2.8 Policy CS21 ‘Greenspaces and Trees’ goes on to say:

*“The Council will encourage proposals for new development to incorporate:*

- a) Retention of existing trees, woodland, vegetation and other habitat features which offer a positive contribution to the local environment in terms of visual amenity, recreation value or biodiversity/wildlife interest.”*

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<sup>2</sup> For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat

### 3.0 Survey Methods

- 3.1 Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023) edition states:

*“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”*

- 3.2 Relative to the above the survey protocol has been determined using the collective and long standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

#### Survey Protocol

- 3.3 The timing of the surveys took place in May & June 2025, thus within the time period when bats are within their active and breeding season, when pregnant females have returned to maternity roosts and certain species are starting to give birth to pups.

- 3.4 In accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023), it is specified that:

*“The bat active period is generally considered to be between April and October inclusive”,* though the period of **May – August** is the optimal most productive period that Natural England accept bat surveys and grant EPSMLs in relation to bats.

- 3.5 Typically only surveys within this period are accepted by licensing authorities, as the results of these surveys are used to inform an EPS licence application or a non-licensable Precautionary Working Method Statement (PWMS).

- 3.6 Where bats are roosting, they are likely to be detected by the ecologists who are trained in the use of bat detector hardware and call analysis software, and specifically how to detect bats and to correctly identify / disseminate bat calls.

- 3.7 When considering survey protocol, the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality as well as any visual limitations at the survey site.

- 3.8 Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023), it is specified that:

*“Roost re-entry visits prior to dawn are no longer routinely recommended for presence/absence surveys due to the risk of bats returning early and being missed ... As return times appear to be far more variable (Andrews & Pearson, 2022).”*

- 3.9 In this case, the bat roost potential that exists at Knowsley Village Hall presents no problems for dusk observations; if a building is complex, or observations were restricted, or species that are difficult to detect at dusk are suspected then dawn surveys would be conducted where appropriate. At the site there are no visual constraints and to date there is no evidence to suggest the presence of such species.

3.10 Survey protocol should not be determined by parties who are 1) not familiar with the site 2) do not have a sufficient level or experience in relation to the undertaking of dusk / dawn bat surveys. The initial categorisation of 'Moderate' and number of surveyors proposed was provisional and confirmed following attendance of the application site for the first dusk survey.

Pre-dusk Inspections

3.11 Prior to the commencement of each survey, an updated Preliminary Roost Assessment was undertaken at the application site. As internal access was not provided during the first dusk survey, an updated external inspection was undertaken prior to the May dusk survey, with the internal inspection of the building undertaken prior to the June dusk survey, by the following surveyor (**Table 3.1**):

**Table 3.1 – Surveyor credentials**

Surveyor(s)	Experience	Surveyor Credentials
Mr. J. Pescod ACIEEM	7 years	<ul style="list-style-type: none"> <li>Principal Ecologist with extensive training and experience,</li> <li>MRes Advanced Biological Sciences, BSc (Hons),</li> <li>Holder of a Natural England Bat Level 2 Survey Class Licence CL18 (2025-13116-CL18-BAT).</li> </ul>

3.12 Criteria for roost assessment are based upon the determinants given in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023). Buildings and other permanent / semi-permanent structures (where present) were subject to a preliminary roost assessment (PRA), to identify potential areas which may be of value to bats and to determine evidence of use. This typically involves a systematic search of the external aspects of any structure(s), comprising an investigation of features known to be used by bats (for example roofing material, soffits, fascia, lead flashing hanging tiles) using a high-powered torch and close-focus binoculars, where necessary. An internal assessment of the structure(s) was also carried out, with the aid of a high-powered torch and endoscope, where necessary, to identify any evidence of bat use of a structure. Field signs of bats typically comprise bat droppings, urine splashing, fur-oil staining, incidental animal presence, dead specimens and / or the presence of prey items, such as moth wings.

3.13 Trees (where present) would be subject to a ground level tree assessment (GLTA) using equipment such as close-focus binoculars and a high powered-torch. Potential roost features (PRFs) can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached climbing species with stem diameters in excess of 50mm or pre-existing bat / bird boxes. These PRFs can then be determined as PRF-I or PRF-M, dependent on their suitability for individual / low numbers of bats or their capability to host multiple bats.

3.14 Factors considered during the preliminary roost assessment include:

- Practical experience of the surveyor,
- Knowledge of bat species relevant to the site location and geographical range,
- Nature of the immediate / surrounding habitat in relation to foraging opportunities,
- Presence / absence of roost potential,
- Value and types of roost potential, if present (i.e. – maternity, hibernation, transitional).

Dusk Emergence Surveys

3.15 The number of surveys and surveyors was adequate relative to the roost potential that was identified on attendance of the site, i.e. **'Moderate'**, and requiring five surveyors to accurately monitor potential roost features (PRFs) across the structure. Surveyor credentials are provided in **Table 3.1** below:

**Table 3.1 – Surveyor credentials**

<b>Surveyor(s)</b>	<b>Experience</b>	<b>Surveyor Credentials</b>
<b>Mr. J. Pescod</b> ACIEEM	7 years	<ul style="list-style-type: none"> <li>Principal Ecologist with extensive training and experience,</li> <li>MRes Advanced Biological Sciences, BSc (Hons),</li> <li>Holder of a Natural England Bat Level 2 Survey Class Licence CL18 (2025-13116-CL18-BAT).</li> </ul>
<b>Miss. J. Collins</b>	1 year	<ul style="list-style-type: none"> <li>Junior Ecologist, with a range of training and experience,</li> <li>BSc in Wildlife Conservation and MSc in Wildlife Conservation and Drone Applications,</li> <li>Accredited agent on the Natural England Class 2 Bat License (CLS-14227) of Mrs. K. Wilding.</li> </ul>
<b>Mrs. K. Swift</b>	10+ years	<ul style="list-style-type: none"> <li>Seasonal ecologist who has extensive experience undertaking professional bat surveys,</li> <li>Holder of Natural England Class 2 Bat Licence (CLS-22801).</li> </ul>
<b>Mr. D. Ney</b>	5 years	<ul style="list-style-type: none"> <li>An experienced seasonal consultant with extensive experience of undertaking professional bat surveys.</li> </ul>
<b>Mr. M. Smith</b>	7 years	<ul style="list-style-type: none"> <li>An experienced seasonal consultant with extensive experience of undertaking professional bat surveys.</li> </ul>
<b>Miss. H. Wilkinson</b>	1 year	<ul style="list-style-type: none"> <li>A seasonal consultant with experience of undertaking professional bat surveys.</li> <li>MSc in Conservation Management (a CIEEM accredited course).</li> </ul>
<b>Mr. M. Ashton</b>	10+ years	<ul style="list-style-type: none"> <li>An experienced seasonal consultant with extensive experience of undertaking professional bat surveys.</li> </ul>

3.16 Surveyors were strategically positioned so that all elevations with bat roost potential could be observed without limitation. The surveyors were aided by full spectrum electronic bat detectors including the Anabat Scout, Elekon Batlogger M & M2, Echometer EM2 Pro, Peersonic RPA3, or equivalent detectors which enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed the next day using, Anabat Insight, Kaleidoscope, BatExplorer, Sonobat or equivalent computer software to verify field observations.

3.17 Elevations were also surveyed via the use of a Night Vision Aid (NVA) Camera (Panasonic HC-VXF990, Canon XA35 or Canon XA70) or Nightfox Whisker Night Vision Binoculars with additional illumination provided by infra-red (IR) lighting (for example Nightfox Arc, Nightfox XB5, or additional IR floodlights) where deemed necessary by the attending ecologist(s) – recordings would be subject to review the following day to identify emergences / flight lines and species / abundance.

### **Survey Limitations**

- 3.18 A single loft space was accessible through a loft hatch; however, during the internal inspection was found to be at too great a height to be safely entered using the equipment available, though much of the space was visible from the hatch. Observations about the characteristics of this loft space were therefore made from the loft hatch, though no meticulous inspection for evidence of bats could be undertaken.
  
- 3.19 Following the completion of the further surveys, having carefully considered the results and conclusions derived from all surveys to date, no other significant constraints were experienced that would hinder the gathering of ecological data on which to base sound conclusions and recommendations.

## 4.0 Results

### Pre-dusk Inspections

- 4.1 The building is a two-storey former village hall constructed of brick and sandstone, with a slate, multi-pitch roof including dormers and outriggers; the building includes decorative features such as stone parapets and railings, window surrounds, and corncicing, whilst to the rear are located more recent, flat-roofed and single-storey extensions. Whilst the surveyor is not qualified to assess structural integrity, the building was adjudged to be in poor aesthetic condition due to evidence of vandalism including graffiti and smashed windows, though the roof and walls appear in fair condition.
- 4.2 Internally the building includes several rooms and spaces (see **Figure 4.1**), the largest of which is the village hall which features a raised stage to the northern end, a vaulted ceiling of wooden boards, and numerous windows along each side, which fully illuminate the space. The flat roofed extensions feature false ceilings of hanging tiles and are partially illuminated via windows. A series of rooms understood to have historically functioned as a caretaker's flat are located on the first floor at the northern end of the building; above these is a loft space accessible via a single hatch.



**Figure 4.1** – Character of the hall with vaulted ceiling (left) and flat roofed extension with false ceiling (right)

- 4.3 The loft space (see **Figure 4.2** overleaf) was found to be dark, open, and somewhat warm and draught-free, with abundant cobwebbing throughout. No light ingress was visible, and the wooden sarking board which lines the roofing materials appeared tightly fitted and in good condition; as such, it is unlikely bats would be able to easily access the loft. Based on the above characteristics, the loft could provide suitable conditions for the breeding purposes of loft-dwelling species such as the brown long-eared (*Plecotus auritus*), which prefer warm, dark and spacious lofts with consistent thermal conditions. However, the abundant cobwebbing and tightly fitted sarking boards indicate a likely absence of such species, though no meticulous search for evidence of either loft- or crevice-dwelling bats could be undertaken due to access restrictions.



Figure 4.2 – Location of loft space (left) and character of the loft space (right)

- 4.4 Where present, a bitumen 1F underfelt or other traditional roof lining can improve the value of a building for crevice-dwelling bats such as those of the *Pipistrellus* genus, whereby they roost between the roofing cover and the underlining. Though sarking boards provide less favourable habitat, they do provide crevice opportunities between the slates and boards.

**NB:** *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

- 4.5 Externally the building is host to a number of PRFs to all elevations, notably including minor gaps beneath ridge tiles along the main building ridge and occasional slipped/lifted slates; additionally, the eaves of various outriggers could not be clearly viewed from ground level and assessed for openness or gaps. Given the presence of PRFs at the building along with the presence of high-quality foraging habitat and historic presence of roosts in the immediate area as identified by Knowsley Council (see Section 1.4), the building is duly categorised as pertaining to a bat roost suitability of **'Moderate'** in line with current BCT guidelines.

#### Cellar

- 4.6 The building is also host to a number of cellars/underground rooms, which were assessed relative to their potential value to hibernating bats. Beneath the stage in the main hall is a 'trap room' which has been made open to the hall, and through which the brick foundations of the building can be seen (see **Figure 4.3** overleaf). The building is set on lengths of brick wall which create long interconnected tunnels; these are dark and heavily cobwebbed, and do not appear to be externally accessible. This area is relatively confined and dry, and would be of limited value for hibernating bats even if access were possible. Furthermore, the abundant cobwebbing would likely have been disturbed if bats were to be present. This space is therefore categorised as pertaining to a hibernation roost suitability of **'Negligible'**.
- 4.7 A cellar is also present at the northern end of the building, externally accessible via steps leading to a doorway. It is understood the cellar has not been frequently accessed since the building fell into disuse, though the presence of white goods and landscaping/caretaking equipment suggest that during the buildings occupation it may have been disturbed regularly. Along with the aforementioned features, cellar is host to pipework associated with the hall above, a cement floor and a corrugated and arched steel roof which is understood to line concrete above (see **Figure 4.4** overleaf).



**Figure 4.3** – *Character of the foundations*



**Figure 4.4** – *General character of the cellar*

- 4.8 Two windows are present (see **Figure 4.5**), the first of which leads out to the stairwell, but which has been fully blocked externally by steel sheeting. It is not known at what point the steel sheeting was added, but given the aging it appears to have been in place for well over a year and was likely installed to prevent vandalism. Historically this window could have provided access but is now fully sealed. The second faces directly into subterranean brickwork and does not appear to lead anywhere or provide an ingress opportunity.



**Figure 4.5** – *Steel sheeting over cellar window (left) and second window leading nowhere (right)*

- 4.9 The cellar was cool, draught-free and fully unilluminated, and thus generally favourable for hibernating bats in regard to internal conditions. However, the corrugated steel roofing would be unfavourable for hibernating bats to grip, and with the single external window sealed there is no viable access for bats. Nonetheless a thorough inspection of interior surfaces for evidence of bats was undertaken with the aid of a high-powered torch; this revealed scattered, highly aged droppings attributable to both brown long-eared bats and bats of the *Pipistrellus* genus located on the floor and on the white goods units (see **Figure 4.6** below). The droppings were evidently historic, crumbling to the touch or mouldy, with some only evident as powdery residue.

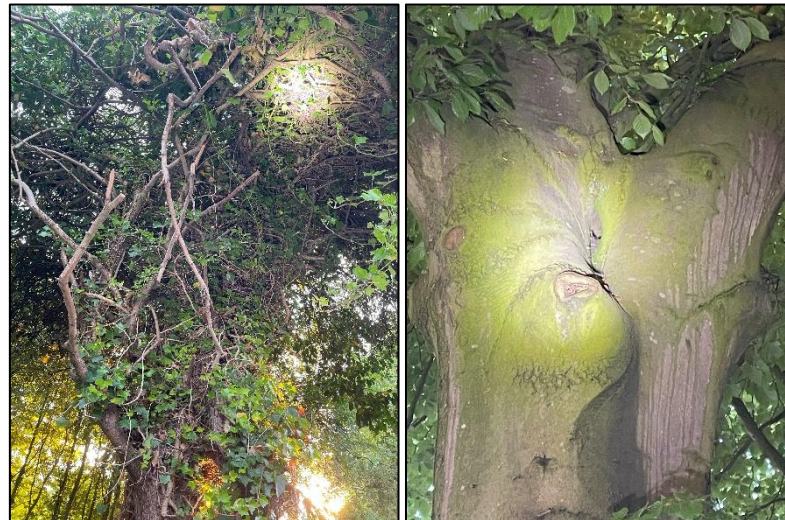


**Figure 4.6** – Bat dropping attributable to pipistrelle bat (top left), dropping residue on white goods (top right), mixed droppings on floor (bottom left) and zoomed image showing mix of pipistrelle and brown long-eared droppings, displaying crumbly and/or mouldy state (bottom right)

#### Trees

- 4.10 The application site is host to multiple mature and semi-mature trees (see **Figure 4.7**), including lime (*Tilia x europaea*), holly (*Ilex aquifolium*), beech (*Fagus sylvatica*) and hawthorn (*Crataegus monogyna*). Trees were assessed from ground level with the aid of a high-powered torch, and were generally found to be absent of PRFs with the exception of four individuals as described below.
- 4.11 Numbering of the trees on site is as per the Tree Removal Plan (Rainfords Arboricultural, 2024) available on the Knowsley Council planning portal. T11 is a hawthorn at the south-western boundary which is clad in a heavy layer of ivy (*Hedera helix* agg.), which could obscure PRFs within the trunk of the tree. T14 and T15 are similarly ivy-clad, mature lime

trees located to the south-west of the village hall building; again, the ivy could obscure PRFs. Finally, T23, a large beech located to the east of the hall, is host to a cavity where two boughs have grown together; the extent of this cavity is not visible from ground level, but it could feasibly provide suitability for low numbers of roosting bats.



**Figure 4.7** – Ivy T11 covered hawthorn (left) beech T23 with cavity (right)

- 4.12 T11, T14, T15 and T23 are therefore duly categorised as pertaining to a bat roost suitability of ‘**FAR**’ (further assessment required) in line with BCT guidance. All other trees are collectively categorised as pertaining to a roost suitability of ‘**None**’.

Dusk Emergence Surveys

- 4.13 Two dusk emergence surveys were undertaken at the site, during May & June 2025 by five surveyors at any one time. **Table 4.1** shows survey timings and weather conditions, whilst **Tables 4.2 – 4.3** alongside **Figures 4.8 – 4.9** document the results of the dusk surveys.

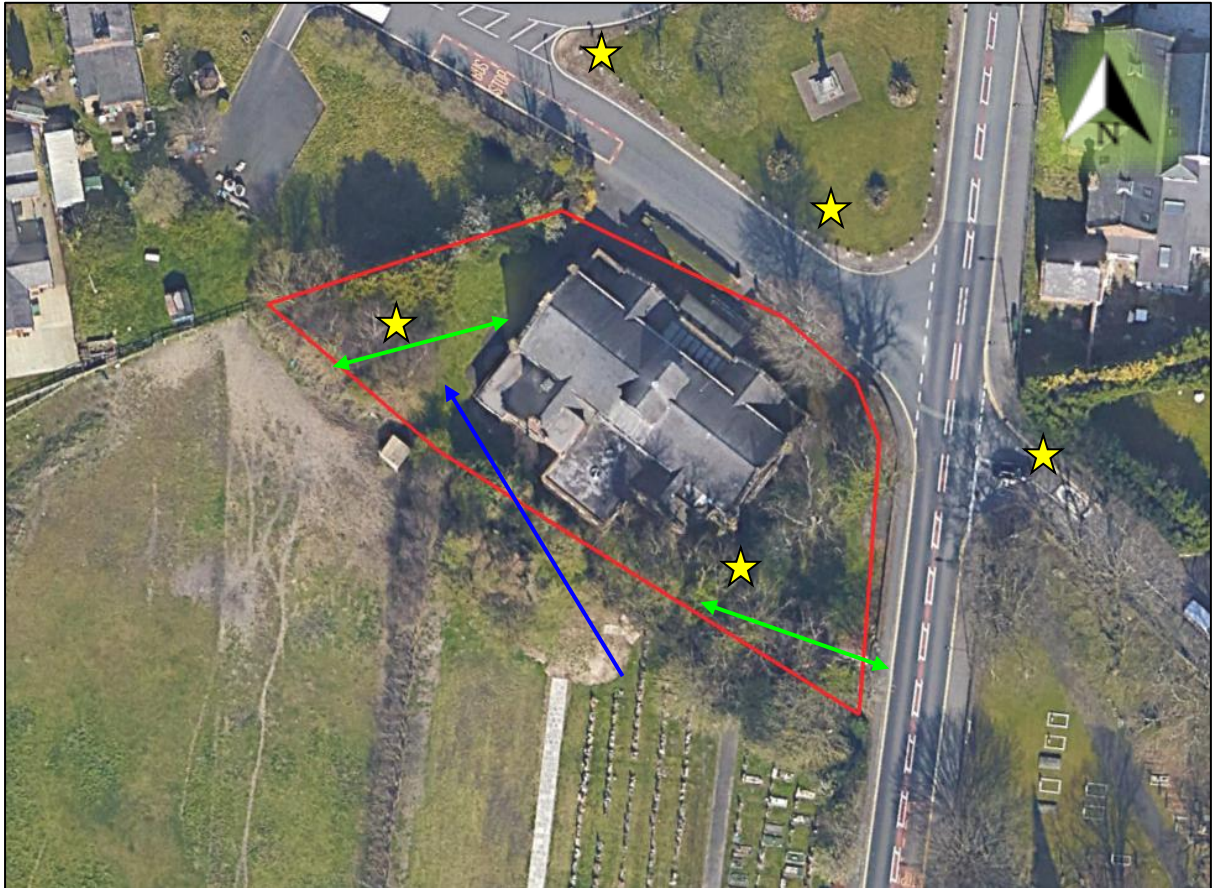
**Table 4.1** – Survey date, times and weather conditions

<b>Times of Survey</b>	<b>Date</b>	<b>Weather Conditions</b>
Dusk survey 1 2055 – 2245	21/05/2025	<b>Sunset: 2115:</b> Dry, Light breeze (2/12 Beaufort), 80% cloud cover  Start temp: 15°C End temp: 13°C
Dusk survey 2 2118 – 2308	10/06/2025	<b>Sunset: 2138:</b> Dry, Light air (1/12 Beaufort), 45% cloud cover  Start temp: 13°C End temp: 12°C


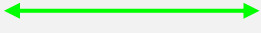



**Table 4.2 – Dusk survey results**

Survey Dates	Time	Activity
21/05/2025	2055 – 2245	<p><b>No emergence of any bat species from the target building during the survey.</b></p> <p>2140-2142 hrs: a common pipistrelle (CP) foraged under the tree canopy at the southern perimeter of the site.</p> <p>2142 hrs: a CP was recorded but not observed.</p> <p>2152-2159 hrs: a CP entered the site from the south-east to forage amongst the trees to the north of the hall.</p> <p>2232 hrs: a CP was recorded but not observed at the southern end of the site.</p> <p>General activity comprised of sporadic foraging by a single common pipistrelle bat.</p>
10/06/2025	2118 – 2308	<p><b>No emergence of any bat species from the target building during the survey.</b></p> <p>2155-2213 hrs: a CP was sporadically recorded foraging in the trees to the south of the site.</p> <p>2223 hrs: a CP foraged above the green to the east of the site before commuting west.</p> <p>2230 hrs: a CP foraged above the green to the east of the site before commuting west.</p> <p>General activity comprised of sporadic foraging by a single common pipistrelle bat.</p>

**Knowsley Village Hall, School Lane, Knowsley, L34 9EN**  
**Dusk Survey Results in Relation to Bats**

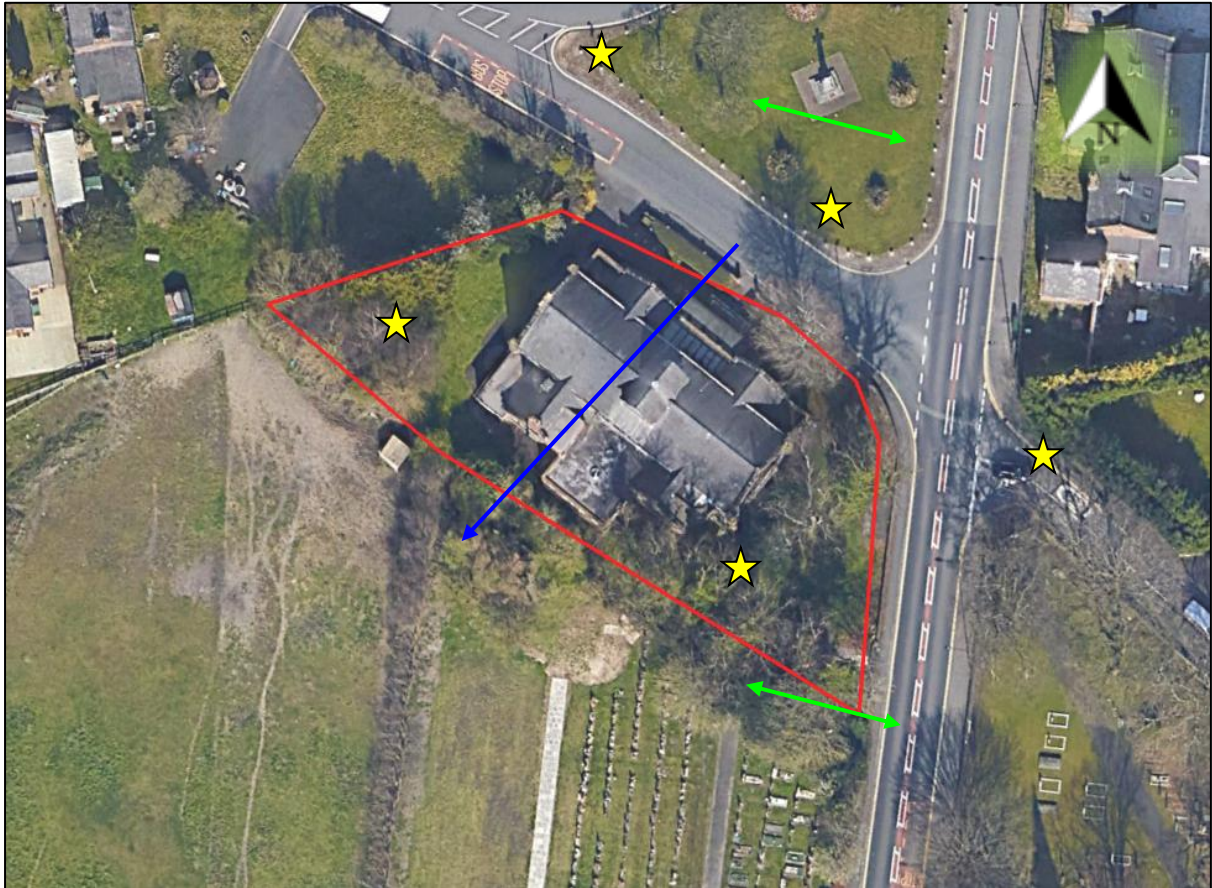


**Dusk Survey 1 – 21/05/2025**






<b>Key</b>			
	Surveyed structure		Foraging activity
	Surveyor positions		Commuting activity
	Directional compass		

**Figure 4.8 – Visual Aid – Dusk survey results with Key**

**Knowsley Village Hall, School Lane, Knowsley, L34 9EN**  
**Dusk Survey Results in Relation to Bats**



**Dusk Survey 2 – 10/06/2025**

<b>Key</b>			
	Surveyed structure		Foraging activity
	Surveyor positions		Commuting activity
	Directional compass		

**Figure 4.9 – Visual Aid – Dusk survey results with Key**

Incidental Observations

- 4.14 During a Biodiversity Net Gain Assessment (Tyrer Ecological Consultants Ltd, January 2025) of the site, an Invasive Non-Native Species (INNS), was identified in the form of rhododendron (*Rhododendron ponticum*), a species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).
- 4.15 During the first pre-dusk inspection, giant hogweed (*Heracleum mantegazzianum*), a species listed under Schedule 2 of the Invasive Alien Species (Enforcement and Permitting) Order 2019, was also identified, located at the northernmost corner of the site (see **Figure 4.10**).



**Figure 4.10** – Giant hogweed identified in the northmost corner of the application site

## 5.0 Conclusions & Recommendations

### Pre-dusk Inspection

- 5.1 Based upon the findings of the updated building inspection, covered through section 4.0 of the report, the building on site was determined to pertain to a bat roost suitability of **'Moderate'**, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4<sup>th</sup> ed. (2023). See **Figure 5.1** below for a BCT guidelines extract.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey <sup>a</sup> (structures).  No further surveys required (trees).	Two separate dusk emergence survey visits <sup>b</sup> .	Three separate dusk emergence survey visits <sup>b</sup> .

**Figure 5.1** – BCT extract on 'Moderate' suitability criteria

- 5.2 The two recommended, suitably spaced dusk emergence surveys are therefore considered to be proportionate survey effort for the building in relation to the identification of roosting bats during the active season.

### *Cellar*

- 5.3 The cellar accessed via an external stairwell was found to be internally suitable for the hibernation purposes of bats, though no viable access points were found that would currently allow such use. Historic droppings, attributable to brown long-eared and pipistrelle bats were found scattered throughout the cellar, indicating that the space had at some point been utilised by bats.
- 5.4 The cellar does not form a part of the development proposals, with no modifications included within proposed site plans. However, it is acknowledged that the proposed change of use may result in increased disturbance to this cellar, during both the construction and operational phase of the development.
- 5.5 Consideration has been given to the recommendation for hibernation surveys; however, the lack of viable access for bats and the extremely aged nature of the droppings encountered is interpreted to indicate a historic change in the character of the cellar which has reduced or removed its suitability for hibernating bats. This is likely to have been in the form of the steel sheeting which has entirely sealed the external window; this is understood to have been present for some period of time.
- 5.6 A precautionary approach is instead therefore recommended, in the form of a Precautionary Working Method Statement (PWMS). This PWMS should include, as a minimum:
- Timing of the most disruptive works (i.e. structural modifications, ground works etc.) outside of the hibernation season of November-March inclusive;
  - Ongoing checks by a suitably licensed ecologist during the hibernation season to assess the cellar for fresh evidence and/or suitability; and
  - The creation of an appropriate mitigation/enhancement scheme to include either the incorporation of bat access into the existing cellar to allow hibernation or the erection of a bat box suitable for hibernation within the application site boundary.

- 5.7 Should bats, or recent evidence of bats, be identified using the cellar during the ongoing checks, works would have to cease in proximity to this area of the site and a European Protected Species Mitigation Licence (EPSML) would likely be required to allow the development to legally proceed.

*Trees*

- 5.8 Four trees were assessed as pertaining to a bat roost potential of 'FAR' in line with BCT guidelines (see **Figure 5.2**). Typically, this would result in the requirement for further survey work to establish whether PRFs were present, however, based upon the Tree Removal Plan and BNG Assessment, it is understood that these trees are to be retained in full.

<b>Table 4.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.</b>	
<b>Suitability</b>	<b>Description</b>
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

**Figure 5.2 – BCT extract on tree roost suitability criteria**

- 5.9 As such, no further surveys are recommended in relation to trees at this time; however, should the development proposals be altered to include the felling or management of T11, T14, T15 or T23, then the advice of a suitably experienced ecologist should be sought in relation to additional aerial inspections of each tree.
- 5.10 Nonetheless, the applicant might consider implementing a bat-sensitive lighting plan to avoid impacts to bats foraging above the site. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information.

**Appropriate luminaire specifications:** Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.

- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

### Dusk Emergence Surveys

- 5.11 From the dusk survey results, it can be concluded that whilst using best practice survey methodology, emergence of bats was absent at Knowsley Village Hall, with activity limited to sporadic foraging and commuting by a single common pipistrelle bat at a time.
- 5.12 As bats are a highly transient species group and can use buildings that offer potential roost features at any time of the year, it should be stated that if bats, or any recent or additional evidence of bats (see **Figure 5.3**), is found at any stage during the works then as a legal requirement the work at the site should immediately cease and a bat ecologist be contacted for further advice.



**Figure 5.3 – Bat droppings (left) and pipistrelle bat (right)**

- 5.13 If bat(s) or their roost will be affected then a Natural England Mitigation licence will be required to legally continue with the work. Notwithstanding the granting of a licence, works that would affect a roost cannot take place if a maternity colony is in occupation.
- 5.14 Notwithstanding the absence of roost behaviour observed, the proposed development scheme might consider enhancement for bats as part of its biodiversity net-gain goals, in accordance with local and national planning policy.
- 5.15 See Figures overleaf for indicative ideas which could be integrated during the proposed new development however, a bespoke enhancement plan can be provided by Tyrer Ecological Consultants at the clients request whereby types of provision and locations can be annotated on site plans / elevation drawings.

#### Incidental Observations

- 5.16 Two INNS, giant hogweed and rhododendron, were identified within the application site boundary. Whilst it is not illegal to host such species within an ownership boundary, it is illegal to spread or allow the spread of them outside of the boundary, and authorities may require eradication or management of these INNS regardless. Furthermore, giant hogweed is dangerous to humans in that contact of the skin with its sap can result in extreme photosensitivity, in which sunlight causes severe burns.
- 5.17 It is therefore recommended that eradication of these INNS by a suitably experienced and qualified invasive species contractor be undertaken prior to commencement of works at or in proximity to that area of the site. Eradication would both prevent risk of harm to contractors during the construction phase and occupiers during the operational phase of the development and prevent risk of spread of these plants off-site.

## Enhancing a development site for Bats

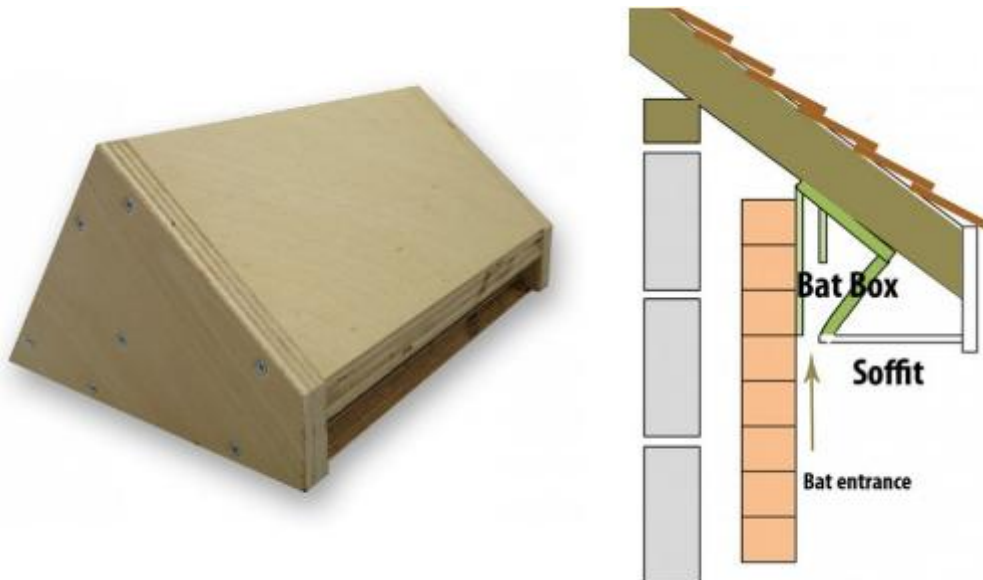
### Integrated bat box

The Habitat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



### Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.

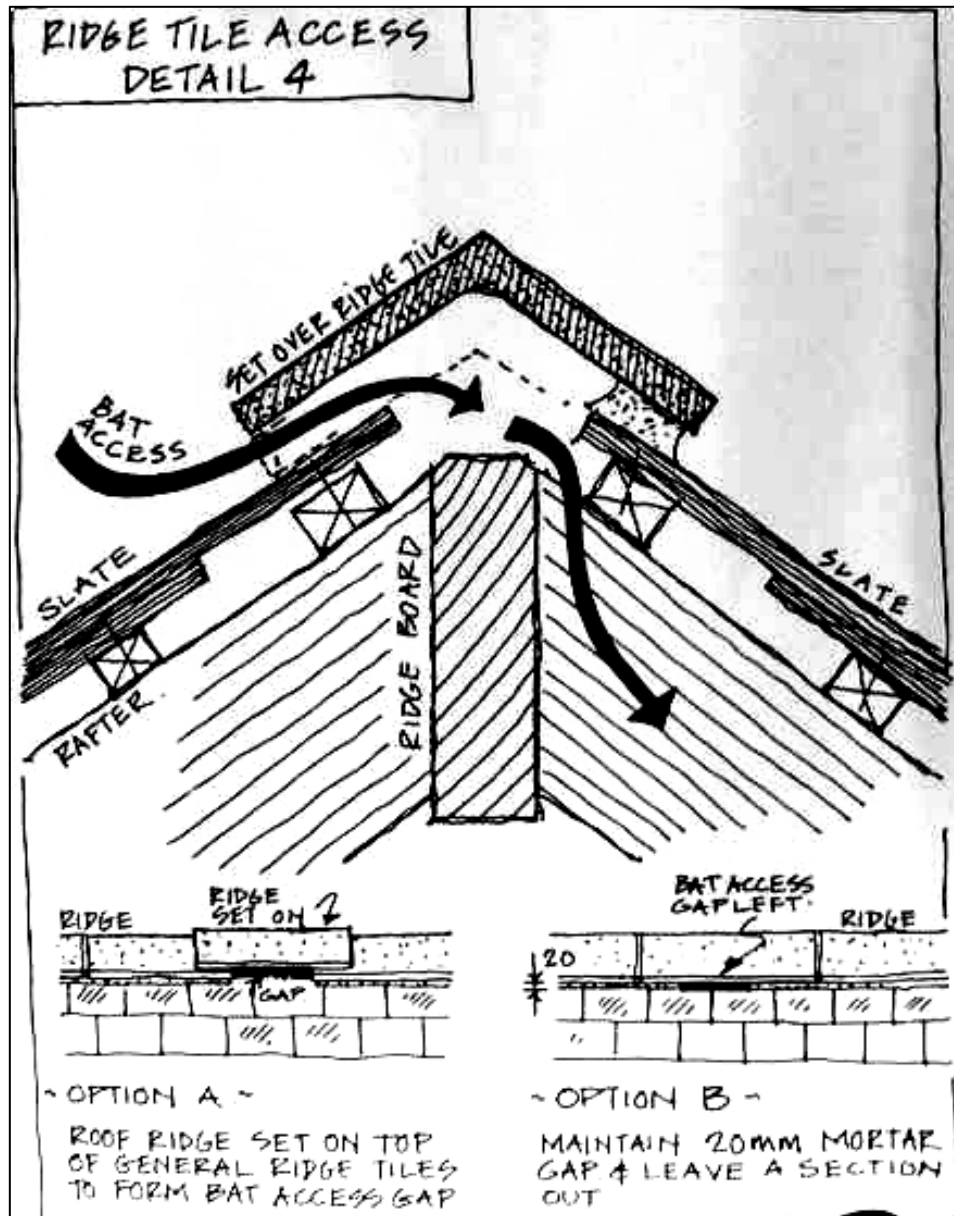


Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

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## 7.0 References

- **Bat Conservation Trust (BCT)**, 2023. *Bats and Artificial Lighting at Night, Guidance Note GN08/23*. Available from: <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>
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**Appendix I: *Village Hall, Knowsley Village – Preliminary Ecological Appraisal* (Sensible Ecological Survey Solutions Ltd, December 2024)**