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Dusk Survey Results

October 2023

Hopwood Hall

Middleton

Rochdale

Greater Manchester

M24 6XH

National Grid Ref: SD87490830



Hopwood Hall, Middleton, Rochdale, Greater Manchester, M24 6XH
Dusk Survey Results

Document Title	Dusk & Dawn Survey Results
Prepared for	Rochdale Council
Prepared by	Tyrer Ecological Consultants Ltd

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1.0 Background and Introduction

- 1.1 As part of the ongoing scheme of conservation restoration and repairs for Hopwood Hall in Middleton, Rochdale (see Figures 5.1-5.2 for building layout), Tyrer Ecological Consultants Ltd were re-commissioned by Seven Arcitecture on behalf of Rochdale Council to undertake further dusk surveys during the active bat survey season of 2023, following the conclusions of the 2022 PRA (**Appendix I**) and ensuing dusk survey report (**Appendix II**), along with incidental observations during the ECoW works in relation to the subsequent licence.

As part of the original survey a Preliminary Roost Assessment (PRA) carried out in 2022, the following an assessment was undertaken which concluded the following:

Based upon the findings of the survey covered through sections 6.0-7.0, which includes extensive records of bats at site level, bats at local level, discovery of a feeding roost and availability of external crevice opportunities across the roof and external elevations, whilst following best practice guidance Hopwood Hall is determined to offer 'High' bat roost suitability in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016)

- 1.2 Proposals at the site are understood to involve the continuation of a program of remedial works at the hall to complete the restoration of the structure to its former condition. This includes the re-roofing of a previously identified brown-long eared feeding roost, however owing to the limited activity recorded at this section of the building during the 2022 surveys (**Appendix II**) it was decided that a further 2 emergence surveys should be undertaken in 2023 prior to the submission of the for licence for the current phase of works.

1.3

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

Figure 1.2 - Extract from *Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016)*

- 1.4 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.
- 1.5 This report should be read, understood and presented to the local authority as an additional document to Appendix I and Appendix II (see Contents page).
- 1.6 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019), measures have been recommended proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain.

2.0 Bats - Legislation & Policy

2.1 All British bats and their ¹roosts are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that 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 Use of Buildings by Bats

- a) Summer breeding roost (May-August)
- b) Hibernation roost (October-March)
- c) Transitional or temporary roost (Mainly spring/summer months)

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.

Policy

2.3 Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) states:

180. 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 reasons⁶³ 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.

:

¹ ^{**}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.

- 2.6 The Rochdale Local Plan supports this in Policy G7 - Increasing the value of biodiversity and geodiversity, which states:

“We will ensure that sites and features of biodiversity and geodiversity importance are given full and appropriate recognition and protection. Opportunities for enhancing biodiversity and geodiversity, creating new sites and features of interest and improving opportunities for public enjoyment will be supported. No development should result in a net loss of biodiversity or geodiversity interest in the borough and overall development in the borough should result in a net gain.”

And goes on to state:

“Protected Species: Development proposals which would affect a species protected by law or its habitat will not be permitted unless it can be demonstrated that:

a. there is no adverse impact on the species concerned;

b. damage to habitats is minimal and alternative habitat provision is effective in maintaining those species.

Opportunities to protect, enhance and create features of biodiversity or geodiversity interest should be informed by the detail of any formal designation of a site or area and supporting plans and guidance such as Local Biodiversity Action Plans, Green Infrastructure Strategies and Action Plans and the Council's Biodiversity and Development SPD”

3.0 Protected Species in Manchester

- 3.1 Up to ten bat species have been recorded in Greater Manchester, most of which use built structures notably occupied residential properties for roosting. The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Greater Manchester is reflected throughout the UK.

4.0 Survey Methods

- 4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) 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.”

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

- 4.2 The timing of the surveys took place in August, at a time when bats are within their active season and a period of the year when maternity colonies have formed and female bats begin to give birth, therefore a highly social stage when bat activity can be most apparent. The active season of bats is generally accepted as May-August across the industry.
- 4.3 The number of surveys and surveyors was adequate relative to the roost potential that was identified on attendance, and in relation to the areas of the building which are subject to works i.e. ‘Four surveyors’ to accurately monitor potential roost features (PRF’s) on the building at any one time with an additional surveyor located within the previously feeding roost owing to the presence of the parapet wall obscuring surveyor’s view.
- 4.4 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.
- 4.5 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.
- 4.6 In this case, the visual limitations experienced at the building, owing to the double pitched roof and various extensions are limited to roof pitches K and J which are only partially visible from ground level. The ability to spot bats returning to roosts in these areas during a dawn would also suffer the same constraints and thus in line with the BCT guidance note issued May 2022 (detailed below) 2 dusk surveys were undertaken with the assistance of Night Vision Aids (NVA).
- 4.7 BCT issued an Interim Guidance Note in May 2022 in advance of a 4th edition of bat survey guidelines to be published in Summer 2023, which supersedes existing guidelines and states in relation to dawn surveys that:

“Whilst dawn surveys can reward surveyors with displays of dawn swarming behaviour, there is a concern that bats that have returned earlier will be missed...”

The 4th edition of the survey guidelines will therefore transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys in favour of dusk surveys supported by NVAs. The use of NVAs has the potential to improve the quality of dusk surveys,

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providing clarity on exact emergence points and bat counts that might not otherwise be available because of the limitations of the human eye.”

- 4.8 Survey protocol should not be determined by parties who are 1) not familiar with the site, and 2) do not have a sufficient level of experience in relation to the undertaking of dusk/dawn bat surveys.
- 4.9 The number of surveys and surveyors was adequate relative to the roost potential that was identified during the daytime appraisal – i.e. moderate potential. Five surveyors were required to accurately monitor potential roost features (PRF's) on the building at any one time.
- 4.11 Surveyors were strategically positioned so that all elevations with bat roost potential, as described in the daytime report, could be observed without limitation. The surveyors were aided with Anabat SD2, Batlogger M & M2, Echometer EM2, Peersonic RPA3, or equivalent electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed the next day using Analook, Kaleidoscope, BatExplorer or equivalent computer software to verify field observations. Where deemed appropriate by the attending ecologists, elevations were also surveyed via the use of a Night Visual Aid (NVA) Camera (Panasonic HC-VXF990) – recordings would be subject to review the following day to identify emergences / flight lines and species / abundance.
- 4.5 Prior to the first dusk survey, a pre dusk inspection of the feeding roost within the Hall was undertaken by Miss T. Hesketh (See section 5.1) with the aid of a high-powered torch to locate any fresh droppings or other evidence of bats. An updated external inspection of the building was also undertaken due to the nature of the on-going works on the site.

Survey Limitations

- 4.6 Visual limitations experienced at the building, owing to the double pitched roof and various extensions are limited to roof pitches K and J, which are only partially visible from ground level.

5.0 Results

- 5.1 During the pre-dusk survey on 15th August 2023 20+ bat droppings attributed to brown long-eared bat (*Plecotus auratus*) were located within the previously identified feeding roost underneath 'Roof B' along with an increase in yellow underwing remains observed from the previous surveys a secondary feeding roost was observed within the hall way, with a limited number of wings and droppings recorded, this hall is accessible from the roof void below 'Roof B'.
- 5.2 The surveys took place on the 15th August and 29th August from a combination of 8 surveyors listed below; surveyor credentials have been given within **Table 5.1. Tables 5.2-5.3** alongside **Figures 5.1-5.2** document the results of the dusk surveys. This section of the report should be read in conjunction with **Appendix III**.

Table 5.1 - Surveyor Credentials

Surveyor(s)	Experience	Surveyor Credentials
Miss. T. Hesketh	4 years	An experienced Ecologist with 4 years professional training and experience; holding a BSc in Biology and MSc in Conservation Management a course accredited by CIEEM. Accredited agent on the Class 2 Natural England bat license of Mrs K Wildling (CLS-14227)
Miss. K. Judson	4 years	An experienced Junior Ecologist. BSc (Hons.) Biology, MSc Conservation Management (a CIEEM accredited course), Qualifying CIEEM.
Mr. B. Richards	2 years	Junior ecologist undergoing extensive training. MBiolSci in Biological Sciences (Zoology), QualCIEEM
Mr. H. Mulligan	1 year	Junior Ecologist with a range of training and experience. MBiolSci in Biological Sciences (Zoology), Qualifying CIEEM Accredited agent on the Class 2 Natural England bat licence of Mrs. K. Wilding (CLS-14227).
Mr. M. Moss	2 years	A seasonal ecological consultant with experience of undertaking professional bat surveys
Ms. E. Thomas	3 years	A seasonal ecological consultant with experience of undertaking professional bat surveys
Miss. L. Wilde	2 years	A seasonal ecological consultant with experience of undertaking professional bat surveys
Mr. J. Wright	1 year	A seasonal surveyor with experience of undertaking professional bat surveys and additionally holds a BSc in Biology and MSc in Zoology. Current PhD candidate at Manchester Metropolitan University.

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Table 5.2 – Survey dates, times and weather conditions

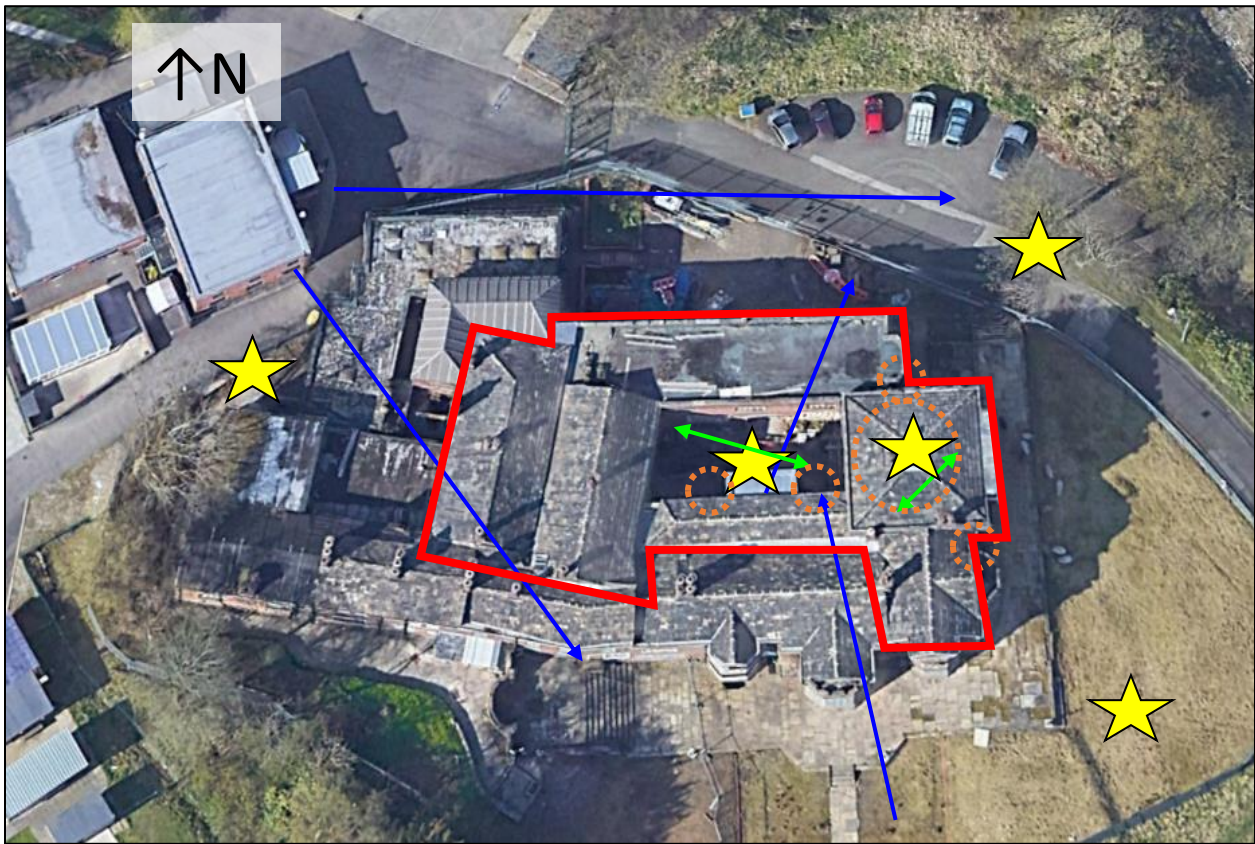
Times of Survey	Date	Weather Conditions
Dusk survey 1 2018 - 2210	15 th August 2023	Sunset: 2038: Dry, Gentle Breeze, 0% cloud cover Start temp: 16° C End temp: 13° C
Dusk survey 2 1948-2140	29 th August 2023	Sunset: 2008: Dry, Moderate breeze, 30% cloud cover Start temp: 15° C End temp: 12° C

Table 5.3 – Dusk Survey Results

Dusk Survey	Time	Activity
Dusk Survey 1 15/08/2023	2018 - 2210	Summary: Emergence of 3 brown long-eared bats from 'Roof B' and 2 further BLE emerged from the soffit box on the eastern elevation below 'Roof C', along with the emergence of 2 common pipistrelles one from a gap in the stonework on the northern elevation and one from the wall plate within the courtyard along with the emergence of a single soprano pipistrelle from beneath a barge board within the courtyard. 2050-2057 hrs: 3 brown long eared bats (BLE) are observed flying within the loft space and room below the 'Roof B', social calling was observed by the surveyor, the three BLE fly back into the loft space and out of view of the surveyor owing to the remaining partial ceiling. 2051 hrs: 1 common pipistrelle (CP) emerges from a gap in the stonework in the northern elevation between the elevations of 'Roof B' and 'Roof A'. 2057-2102 hrs: 2 x BLE emerge from the eastern roof pitch of 'Roof B' over the parapet wall and fly south. 2059 hrs: Soprano pipistrelle (SP) emerges from beneath barge board within the courtyard on the north elevation associated within Roof H. 2101 hrs: Daubenton's (Daub) bat flies onto site from south 2101 hrs: Daub, CP and SP foraging within courtyard. 2116 hrs: (Daub) commuted north. 2116 hrs: CP commuting east to west of the north of the building. 2118 hrs: CP foraging to the north of the building. 2119 hrs: Noctule (Noc) recorded flying over site.

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		2120 hrs: BLE recorded calling by the surveyor within the room below 'Roof B' but not seen. 2131 hrs: 1 BLE emergence from the roof pitch over the parapet wall and flies west. 2139 hrs: CP foraging to the east of the site. 2200 hrs: 2 x BLE emerged from the soffit box on the eastern elevation below 'Roof C' and commuted north. Activity comprised of the emergence of 5x BLE, 1 SP and 2x CP along frequent foraging activity comprising of species above listed species as well occasional foraging by a Daub and single Noc pass.
Dusk survey 2 29/08/23	1948-2140	Summary: Emergence of a single common pipistrelle, with sporadic foraging across the site consisting of common pipistrelle and a single Daubenton's pass. 2006 hrs: CP emerged from a gap in the stonework in the northern elevation between the elevations of 'Roof B' and 'Roof A'. 2023 hrs: BLE commuted across the building and flew north. 2025 hrs: CP foraging within the courtyard and then commuted north. 2027 hrs: Daub commuted over the site heading east. 2038 hrs: CP commuted over the building heading east. 2050 hrs: CP commutes east to west across southern elevation of the building. 2103 hrs: Cp commuted east to west across the northern elevation of the building. Activity comprised of the emergence a single CP along occasional foraging activity comprising of species above listed species and a single Daub pass.



Dusk Survey 1 – 15/08/2023

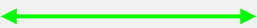
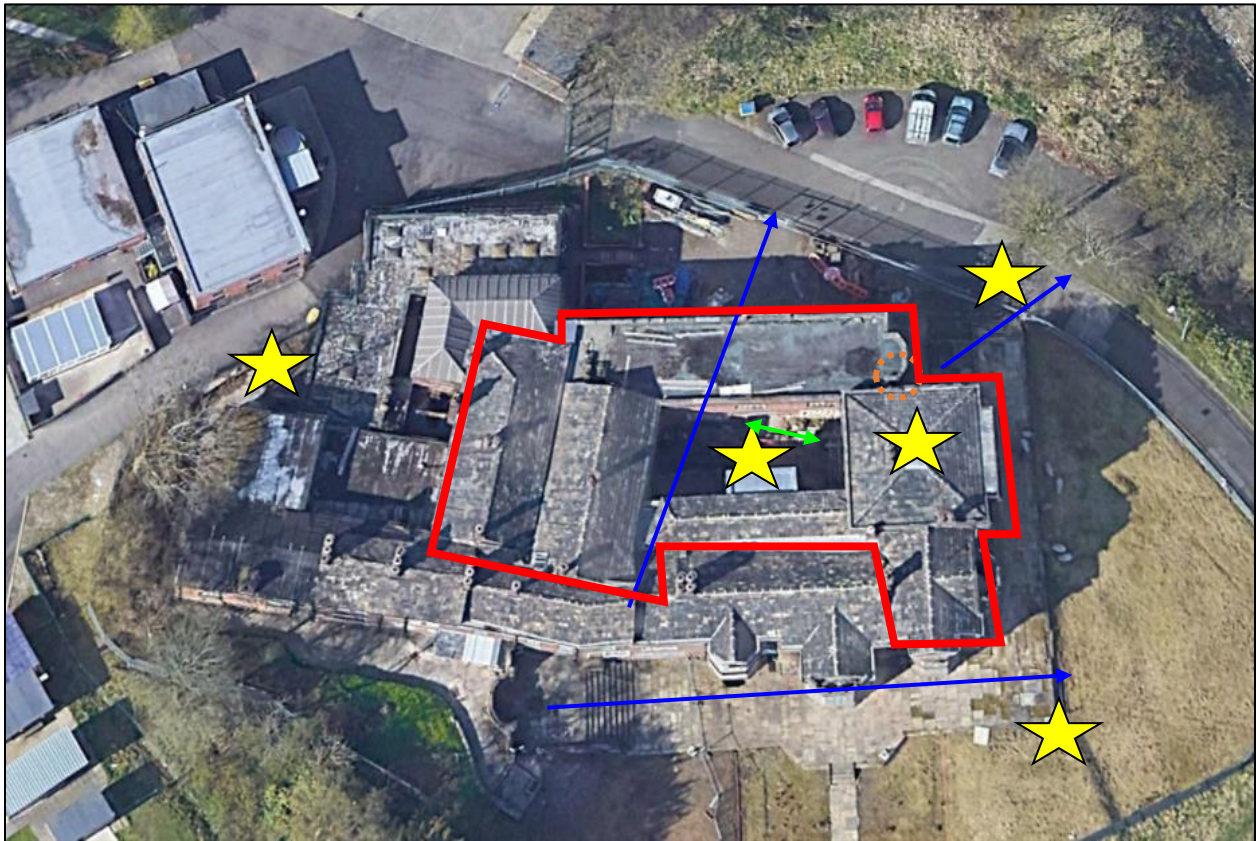
Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity
	Emergence location		Directional compass

Figure 5.2 - Visual Aid - Dusk Survey Results with Key



Dusk Survey – 29/08/2022

Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity
	Emergence location		Directional compass

Figure 5.3 - Visual Aid – Dusk Survey Results with Key



Figure 5.1 - *Dusk Survey 1 & Dusk Survey 2 - Visual Aid* - Emergence locations on the northern elevation; where a single Common Pipistrelle emerged from below the coping stone of the parapet wall and a single Common Pipistrelle emerged at the join of the second storey canted bay window meets the brickwork.

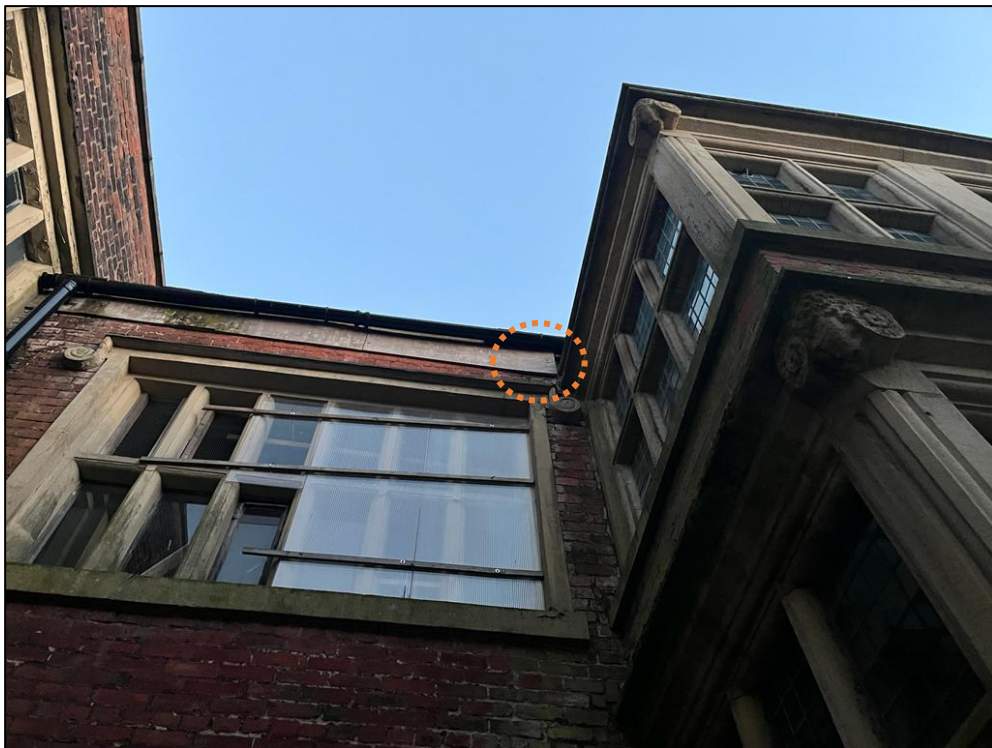


Figure 5.2 - *Dusk Survey 1 - Visual Aid* – Emergence locations of a single soprano pipistrelle from beneath a lifted barge board.



Figure 5.3 *Dusk Survey 1 - Visual Aid – Emergence location from wall plate level of a single Common Pipistrelle.*



Figure 5.4 *Pre-dusk inspection survey 1- Visual Aid – increased evidence of use by BLE, with feeding remains, dropping and splashing observed throughout the room.*



Figure 5.5 *Dusk Survey 1 - Visual Aid – Emergence locations for 5 x BLE, 3 from over the parapet wall and 2 from the soffit.*

6.0 Dusk Survey Conclusions & Recommendations

- 6.1 The area to the west of the building is understood to be unaffected by the upcoming phase of the works, (**Appendix III**) thus the area was observed to provide information regarding activity and foraging routes, particularly in relation to passes over roof pitches K and J.

On the completion of the further two emergence surveys, no emergences / potential emergences were observed at the area to the centre of the building (orange) K and J. However, the roof, soffits, facias and barge boards all hold potential to host roosting bats. Thus, a precautionary approach is recommended during the proposed works to this section of the building whereby prior to work being undertaken a bat licenced ecologist should be provided with access to inspect the slates, gaps beneath barge boards, facias, any open cavity walls and all other areas identified as hosting bat roost potential at the ecologist's discretion; this inspection should be undertaken with the aid of torch light and endoscope.

If current evidence/bat presence is absent these areas will be carefully stripped by hand or sealed as appropriate immediately after the inspection; however, should recent evidence or bat/s be observed during this time the area will be retained and an EPSML applied for to legally allow the works to commence.

The area to the east of the building (red) hosts 5 roosts occupied by three species of bat, and thus any works which would result in the destruction/modification/damage of multiple bat roosts will therefore need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation. A European Protected Species Mitigation Licence (EPSML) will be required to legally destroy places that are actively used for breeding, rest or shelter (roost) by bats (see section 6.2).



Figure 6.1: Depicting areas of Hopwood Hall which require ecological clerk of works (ECow) and an EPSML. Orange (ECow) Red (EPSML)

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- 6.2 The survey results gathered by Tyrer Ecological consultants Ltd conclude that Hopwood Hall is being used by up to 5x brown long-eared bats, 2 x common pipistrelles and 1x soprano pipistrelle for roosting purposes. Based upon the evidence the building is thought to hold three Common Pipistrelle 'Day roots' and three Brown long-eared bat 'Satellite roosts' occupied by the same colony at any one time, however it is highly likely this is the same roost using several areas of the building on the southern aspect.

- 6.3 Definition of roosts (Extract from Natural England EPSML Method Statement)

Day roost - *Where individual bats, or small groups of males, rest or shelter in the day, but rarely on summer nights*

Feeding roost- *A place where individual bats, or a few individuals, rest or feed for short periods during the night but are not present by day*

- 6.4 It is probable that the three individuals utilising the loft and room beneath 'Roof B' are utilising the area as a day roost and occasional feeding perch, within the loft space there are crevice opportunities throughout due to sagging bitumen felt. There is also access from this room to the rest of the building owing to the lack of ceilings in the adjacent hall which is also covered by 'Roof B'.

- 6.5 Within the roof there are crevice opportunities throughout in the form of slipped/lifted slates, lifted ridge tiles, fascia's, barge boards and soffits as well as gaps in the stonework to the north of the building. Having taken this into consideration it is possible that the outlined features could be used as transitional roosts, prior to the hibernation period, the likelihood of bats utilising the hall has decreased within the last 12 months owing to the ongoing internal works by volunteer groups.

In the unlikely event that Hopwood Hall is used over the hibernation season the actual locating of singular bats over this period can be "hit & miss" particularly as there are deep crevices in stonework as indicated by the emergence of bats during the dusk surveys, furthermore, bats will often move from one hibernaculum to another over the hibernation season.

To fully investigate for hibernating bats, it would be necessary to dismantle parts of the roof/walls, which is not a viable solution where hibernating bats may be present. Brown long eared or pipistrelle bats, in the UK, invariably hibernate as individuals as opposed to species such as Horseshoe bats that mainly collectively hibernate. Therefore, if the roof is used over the hibernation season the number of bats is anticipated to be singular or very small numbers.

- 6.6 The destruction/modification/damage of multiple bat roosts will therefore need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation. A European Protected Species Mitigation Licence (EPSML) will be required to legally destroy places that are actively used for breeding, rest or shelter (roost) by bats, however, before a licence can be applied for all planning issues need to be resolved.

- 6.8 In order that the LPA can implement its obligations under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), appropriate and proportionate mitigation will need to accompany the planning application which will demonstrate that the "*favourable conservation*" of the species concerned can be maintained.

- 6.9 Installation of new lighting as part of a development scheme that exceeds current levels may have a negative impact upon foraging/commuting bats confirmed as present in the vicinity, particularly if increased light spillage occurs in areas currently free from illumination such as illumination of boundary features and the southern elevation, where areas are currently free from harsh

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illumination due to faulty/broken spotlights. There are several measures that can be used to offset impacts upon bats, where lighting is unavoidable; these include, however are not limited to, the light source used and luminaire design, and accessories to direct light at its intended target. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site. Refer to the Bat Conservation Lighting Guidelines for further strategic information if applicable.

7.0 Indicative Mitigation

- 7.1 From the evidence gained from the two additional surveys carried out on the 15th and 29th of August 2023, the use of Hopwood hall is considered to be of 'low' level significance relation to common pipistrelle and soprano pipistrelle bats and their current status, however brown long-eared satellite roosts identified at the Hall are considered to be of 'moderate' significance to Brown long-eared bats at a local level (as according to - English Nature: Bat Mitigation Guidelines 2004). The proposed mitigation is proportionate to that use. However, if at any time that assessment is revised to a higher level, then the mitigation will also be accordingly revised.

- 7.2 The following procedures and mitigation recommendations are designed to allow the Local Planning Authority (LPA), in association with their ecological advisers, to determine a Planning Application where a European Protected Species has been identified and will be affected by the work for which the Planning Application seeks consent.

In addition, Local Planning Authorities in accordance with the obligations placed upon them by way of their duties under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) have to take into consideration the presence of a European Protected species (EPS) before determination of an application where it/they have been identified.

- 7.3 The LPA need to consider the mitigation in relation to the potential success of a Natural England licence application and/or if in their opinion the mitigation is considered as being appropriate, or if it is over and above what is required; if they determine that the mitigation is appropriate then a Planning Condition should be attached requiring the roost provision to be implemented.

If the LPA consider that the mitigation is over what is necessary but require "enhancement" as part of their Local Biodiversity/Net-Gain Planning Policies this should be included in the terms of Consent. The acting bat ecologist deems the proposed new roost creation as appropriate and not over and above what is required.

- 7.4 **Notwithstanding that Planning Consent is granted or equally if the work is undertaken outside of the planning system, whereby projects that do not require planning consent may affect bats or their roost, including disturbance, it does not absolve the applicant, site owner, developer or any other party involved with the work from ensuring that an application is made for a Natural England development licence, to legally undertake work that will affect bat(s) or their roost(s).**

If work is undertaken without a licence and bat(s) or their roost(s) is/are affected then a breach of current wildlife legislation will occur for which penalties are severe.

- 7.5 Under Regulation 53(1) and 56(3)(a) of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), a licence is required prior to disturbing bats or destroying/damaging or obstructing any place that is used by bats as a resting place or breeding site. The licence is issued by the EPS Licensing Team of Natural England.

Summary of Mitigation

- 7.5 Replacing barge boards, fascias, re-roofing and repointing are a key component of the applications plan for the site; however, it is acknowledged that the presence of roosting bats needs to be addressed from both a legal and conservation perspective.

The mitigation proposals outlined in this report are seen to be the most productive way forward that will retain long term roosting opportunities for bats.

- 7.6 No foraging habitat will be lost as a result of the proposals. Existing foraging habitat in the form of the adjacent woodland will mean any proposed new roost(s) will not be at a further distance from valuable foraging areas of the site.
- 7.7 To ensure that bats are not left without a roost while works take place to the building, three receptor bat roosts will need to be installed on a suitable surface such as a mature tree, Receptor roosts serve as a receiver unit for if bats must be captured and translocated to it by the licenced ecologist during the works schedule. The receptor roost should be installed and be in place prior to any deconstruction or refurbishment works and be within a reasonable distance and line of sight of the existing roost(s). Therefore, it is advised that one box should be placed within a suitable tree to the north and south of the site. **Third-party permission to use the areas in Figure 7.1 to host a temporary roost should be sought** (see below - visual aid).

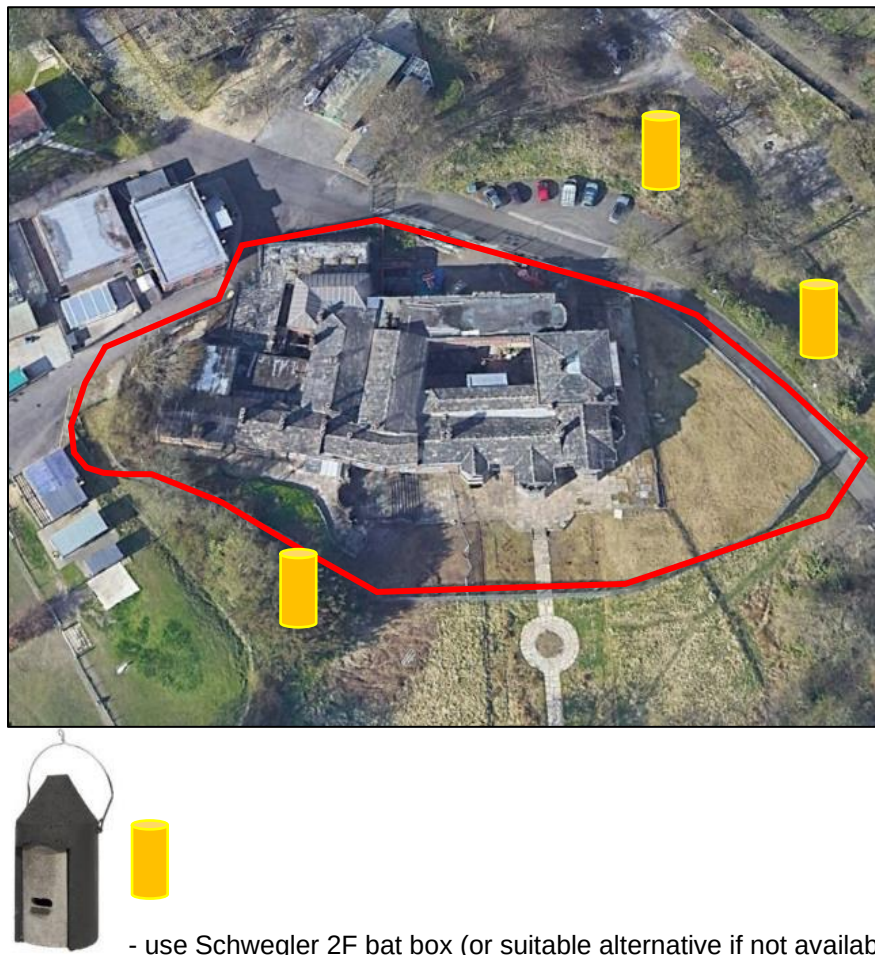


Figure 7.1 - Receptor roosts proposed locations (adapted over Google imagery)

7.8 Pre-works - assigned Ecological Clerk of Works (ECoW) for the orange section

Prior to the commencement of works within the orange section at the pre-commencement stage a suitably qualified ecologist will undertake a site induction 'Toolbox talk' with all contractors on possible bat presence.

Prior to any work being undertaken the presence/absence of bats, as far as is possible, will be established by undertaking a thorough investigation of the areas at which bats have been observed using the site, as well as other areas deemed as having potential to host roosting bats, therefore a thorough inspection will be required; including roof components, inclusive of slates, ridges, fascia's, barge boards soffits and loft spaces. This will involve a thorough inspection of these areas during dismantling using endoscopes and/or narrow-beam torch, as necessary, and will involve a soft roof strip at the local areas of interest around slates/tiles, as necessary, which is the careful lifting, inspecting and removal of roof components.

Bats are a transient species and will utilise different roosts throughout the year based on the climatic conditions provided within the individual roosts. In the highly unlikely event that bat(s), or recent evidence of bat(s), are found during proposed works then as a legal requirement the work at the site should immediately cease. If bat(s) or their roost(s) will be affected, then an EPSML may be required to legally commence with the works. See Figure 7.2 for indicative evidence of bats.



Figure 7.2 – Evidence of bats – droppings on the left / a Common Pipistrelle bat on the right - indicative

7.9 Pre-works - assigned Ecological Clerk of Works (ECoW) for the red section

Once an EPSML licence is in place, at the pre-commencement stage a suitably qualified Ecologist is to undertake a site induction 'Toolbox talk' to the Licensee and all contractors on possible bat presence and discuss document features taken from the EPSML license, i.e. License, Method Statement, Mitigation Figures and Work Schedule to be kept on site for the duration of the work. Prior to any work being undertaken the presence/absence of bats, as far as is possible, will be established by undertaking a thorough investigation of the areas at which bats have been observed using the site, as well as other areas deemed as having potential to host roosting bats, therefore a thorough inspection will be required; including roof components, inclusive of slates, ridges, fascia's, barge boards soffits and loft spaces. This will involve a thorough inspection of these areas during dismantling using endoscopes and/or narrow-beam torch, as necessary, and will involve a soft roof strip at the local areas of interest around slates/tiles, as necessary, which is the careful lifting, inspecting and removal of roof components. In addition, wherever opportunities for bats exist in other parts of the building the supervised dismantling will extend to these areas with strategies for safely removing bat(s), as long as a maternity colony is considered not to have taken up occupancy of the building.

At the pre-commencement stage a suitably qualified Ecologist is to undertake an induction 'toolbox talk' on possible bat presence and present/discuss document features taken from the license i.e. License, Method Statement, Mitigation Figures and Work Schedule to be kept on site for the duration of the work.

In the unlikely event that bats are located during the hibernation season at Hopwood Hall, works must cease in that area immediately and it will be down to the digression of the onsite ecologist to determine the best course of action moving forward. All dismantling of roost features will be undertaken during favourable weather conditions.

An increase in external lighting is expected during the works; should additional lighting be installed it must be directed away from any bat roost access points, flight paths and foraging areas.

Mitigation proposed is subject to the approval of the Natural England EPS team; all proposed roost provisions outlined hereafter will be dedicated for bats and permanent.

7.9 Work undertaken by the Ecologist

Capture/Exclusion: Once an EPSML licence is in place the contractor will provide a safe means of access to allow the ecologist to investigate the confirmed roost area for bat presence at Hopwood Hall.

In addition, wherever opportunities for bats exist in other parts of the building the supervised dismantling will extend to these areas at the discretion of the ecologist in attendance. In the event of bat(s) being present, it/they will be removed, placed in a secure box with soft tissue and immediately transferred into a receptor bat box that will have previously been erected on a tree nearby as indicated in Figure 7.1. Once it has been established by the ecologist that bat(s) are absent the building works will continue to completion.

In the unlikely event that bats are found outside of supervision time, then as legal requirement and conditions of the granted licence work will immediately cease and the ecologist contacted for further advice; contractors must not touch, handle or in any way cause bats to move.

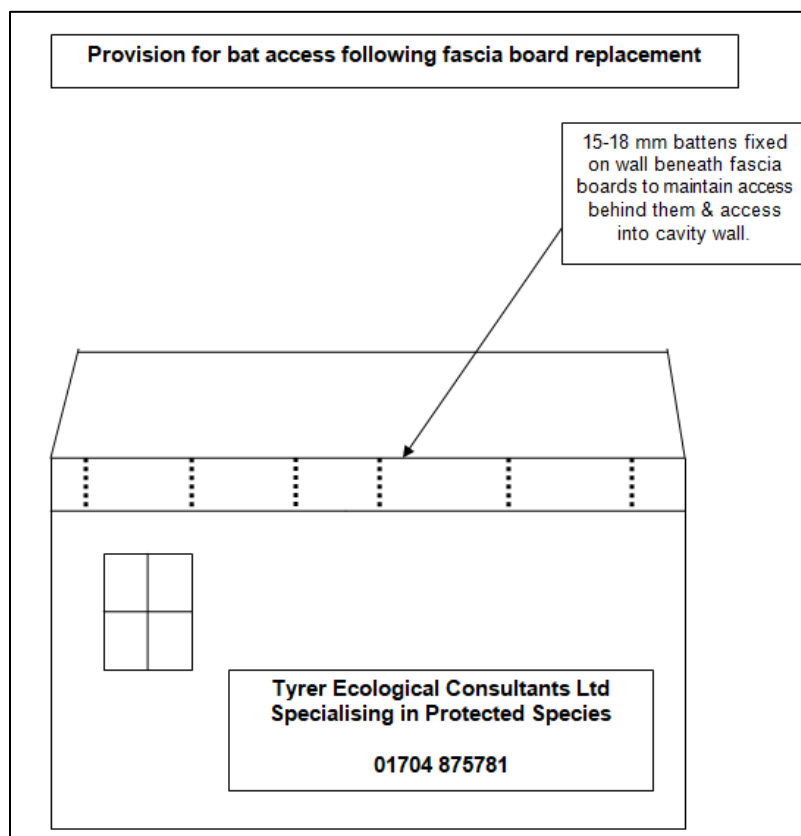
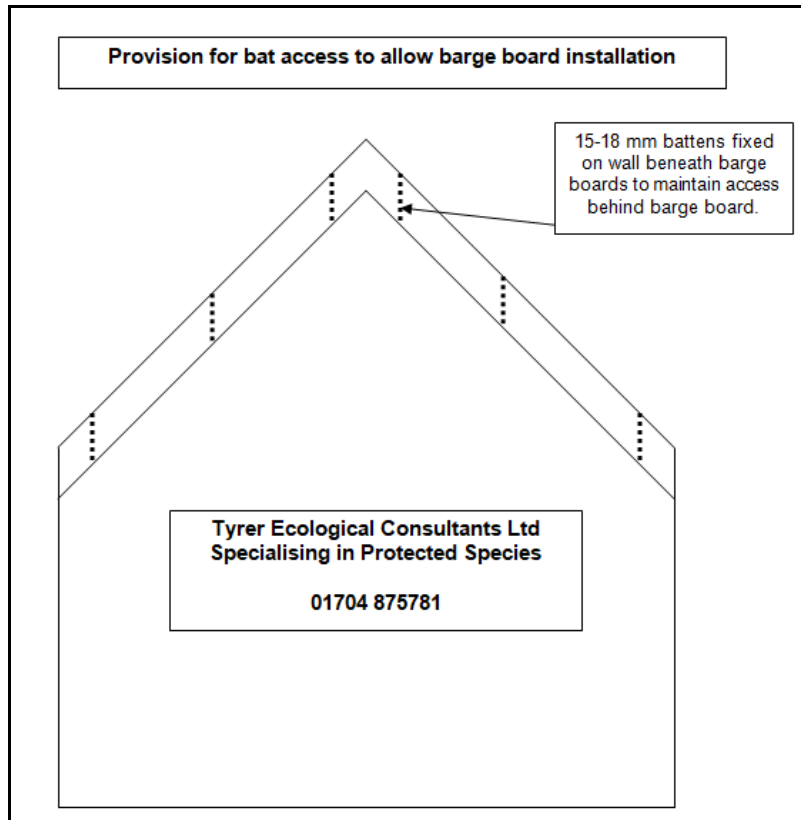
7.10 Work undertaken by the Contractor

A number of viable ingress points and roosting opportunities were identified across Hopwood Hall notably across all aspects of slate roof inclusive of slates, and ridge tiles; fascia and barge boards to the southern elevation, wall plate within the court yard and stone work on the northern elevation. which will be lost during the remedial restoration of the building; It is recommended that Roost provision will be incorporated to replicate the current roost features present which will take the form of soffit/fascia access as well as further mitigation outlined below(to be finalised subject to the provision of development plans during the EPSML application process):

- Due to the extent the BLE's are currently utilising the rooms beneath Roof B, and the fact that they currently have access to the rest building due to the fallen ceilings below Roof B, Tyrer Ecological consultants consider suitable mitigation like for like mitigation via creation of a bat loft within the hipped section of the roof, to allow room for free flight as was observed during the first survey would be suitable in this instance, thus preventing any bats from becoming trapped in other areas of the building in the long term as interior modifications to the building, i.e window and door replacement takes place.
- This will be done via the installation of a temporary ceiling, until funding is available for the construction of a suitable ceiling in line the conservation status of the building, this ceiling will also prevent access to the rest of the building and will include and internal a hatch to allow a suitable qualified individual access to the newly created loft. A full specification for the creation of the loft will be finalised as part of the EPSML application process.
- Access to the above loft space will be via a Installation of a single bat access slate should be placed on a south facing roof pitch or on the southern portion of a roof approaching, but not meeting, the ridge; the bat slate will thus be hidden from view from the ground. The Habibat Bat Access Slate has been carefully designed to provide access to roof space for our protected bat species, whilst blending seamlessly to a roof slate. The Bat Access Slate consists of a standard sized slate, with a capped vent which allows access to roof felt. This will not be visible from the ground as the parapet wall will obscure it.
- Barge/soffit access will be re-created on the eastern elevation in in the same position identified over the duration of the surveys which will comprise of 15 – 18 mm battens fixed on the wall beneath the barge/soffit boards to allow access beneath the boards and into the wall cavity.
- New roosting provision will be re-created in the form of two access points for bats at the or wall plate (as permitted via the design of the development) within the courtyard; the access points will be located as close to the identified roost areas as possible and permit ingress to areas of underfelt to be instated below the roof cover for bats. The gaps will be 25mm long by 50mm wide; to create the access point plastic pipes will/can be used initially, as illustrated overleaf, which will be removed once the verge/wall plate has been rendered and roofing slates or tiles fitted. The access points can be covered over with fascia/barge boards, if necessary, though it must be ensured that bats can freely access the gaps.
- As part of this roost creation process it is imperative that traditional bitumen 1F roofing felt will be used as the chosen as the underfelt/roof lining throughout the slate roof, as opposed to any breathable roofing membrane (BRM). Modern breathable roofing membranes (BRM) entrap bats through wear and tear in the synthetic polymers used to protect the breathable membrane causing bats harm, injury and death, therefore any BRM within the building should be removed and replaced within the traditional bitumen 1F.

See Figures below for illustrative aids.





Breathable Roofing Membranes (BRMs) can trap the feet of bats, resulting in death or injury. It is therefore essential that any ingress points lead to areas lined with traditional bitumen 1F underfelt which is bat safe. It is also essential that there is no access to areas lined with BRM from the ingress point; therefore, sections of timber baton must be laid vertically between the horizontal roofing batons, effectively preventing movement between areas.



This areas of Bitumen 1F underfelt should be incorporated during the roofing of the dwelling, directly adjacent to the barge board/fascia and ridge access.

7.0 References

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Appendix I: *Inspection & Assessment in relation to Bats & Breeding Birds, Hopwood Hall, Tyrer
Ecological Consultants Ltd (March 2022)*

Appendix II: *Dusk & Dawn Survey Report, Hopwood Hall, Tyrer Ecological Consultants Ltd*
(July 2022)

Appendix III: Roof Plan & Chimney Works, HOP -SEV-XX-R1-DR-A-02005 - Seven Architecture

