Charnia Ecology

**Phase 2:**

# Bat and Bird Activity survey Report



At

## Barn Conversion

(Opposite the Draycott Arms),

Uttoxeter Road,
Draycott-in-the-Moors.
Stoke-on-Trent
ST11 9RQ

**June 2017**

## Notice to reader

This report has been prepared by Charnia Ecology with all reasonable skill, care and diligence, within the terms of the contract with the client. The actions of the surveyor on site and during the production of the report were undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management (www.ieem.org.uk).

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Client Details:
**Mr. G. Plant**
**Beech Farm, Teanford**
**ST10 4ES.**

Application area
**Barn Conversion**
(Opposite the Draycott Arms),
**Uttoxeter Road,**
**Draycott-in-the-Moors.**
**Stoke-on-Trent**

Postcode/ OS Grid Ref:
**ST11 9RQ / SJ983400**

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Author:
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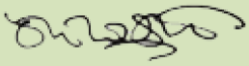
BSc, GradCIEEM, AMRSB



Principal Ecologist

***Surveyor capability***

The Principle Ecologist overseeing the proposed development is a Natural England licensed bat Ecologist (CLS10722 – Level 2) and member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), and an associate member of the Royal Society of Biology (AMRSB). The ecologist has a First Class Honours degree in Conservation Biology, and Vice Chancellors award for academic excellence. He has undertaken protected species surveys for over seven years, and is actively involved in scoping, presence/absence surveys and Natural England EPS licence applications with regard to planning and the law. The actions of the surveyor on site and during the production of written reports are undertaken in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management (CIEEM).

## Non-technical summary

*Report rationale*

1. Phase 2 Bat and bird activity surveys were undertaken carried out at a Barn Conversion (opposite The Draycott Arms), Uttoxeter Road, Draycott. Stoke-on-Trent ST11 9RQ [NGR: SJ983400]. The objective of this report is to provide information in relation to the identification of protected bat and bird species. All activity surveys (2 x dusk / 1 x dawn) were carried out during an optimal period between May/June 2017 by a Natural England class 2 licensed bat ecologist and member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

*Proposed works*

2. It is understood that the proposed planning application considers conversion of the former barn building into a domestic dwelling.

*Site description*

3. The application area is located in the semi rural village of Draycott-in-the-Moors being situated ca 2.5miles south of Cheadle Town in North Staffordshire. The proposed development considers a stand-alone, traditional barn building immediately adjacent to the Draycott Arms pub and Draycott Road. It is ca. 25m x 6m in dimension in dimensions with an overall footprint of ca. 150m$^2$ and constructed of red brick with a pitched tiled roof. The building comprises of an original, main section, aligned east to west which has been later extended on the west facing gable-end at a later period.

*Structure rating*

4. The building pertains to high number of features suitable for roosting bats, albeit roost potential was considered as being reduced overall by being semi-illuminated and partially exposed to external elements. The building was also seen to be somewhat land-locked by arterial roads and busy public highways immediately to the North (Uttoxeter Road) and ca. 500m due South (A50), which may present potential barriers and sinks for commuting bats onto site.

5. Although no evidence of roosting bats was recorded during the building assessment, overall building rating is considered as being MODERATE HIGH for both crevice-dwelling bats and void dwelling bat species. A cavity hole was recorded in a mature tree immediately adjacent to the west facing gable-end of the building which was considered as having some potential for roosting bats, and deemed as being within the zone of influence of the proposed development. It is understood that this tree is proposed for removal.

Desk top study

6. Pre-survey data search shows four non-statutory designated nature conservation sites within 2km of the proposed application site that include three Sites of Biological Importance (SBI) and one Biodiversity Alert Site (BAS). No impact to designated nature conservation sites is predicted, with the existing footprint(s) to be retained and no additional land uptake / alteration to existing landscape / habitat considered.

*Activity surveys*

7. Based on building rating, three activity surveys (2 x dusk / 1 x dawn) were assigned to the structure, and carried out during an optimal surveying period and under suitable weather conditions (See Appendix). Overall, bat activity onsite was low, with all activity condensed along the southern elevation. Zero activity was recorded along the northern elevation which immediately abuts onto a busy public highway with road side lighting.

8. No bats were recorded emerging from the building and/or re-entering during dusk and dawn activity surveys. No evidence of void-dwelling bat species were recorded during periodic internal inspections throughout all stages.

*Impact assessment*

9. No evidence of any notable bat roosts of conservation concern was found within the building subject to development, or within any structures considered as being with the ZoI during the survey period.

10. The building was seen to be utilized by a small breeding colony of European Swallow (amber listed bird species), and individual nesting passerine birds (Wren). Although the building was considered as having moderate to high potential for Barn owl, no evidence of this Schedule 1 species was recorded and NO further recommendations are considered.

*Survey constraints*

11. The roof void on the western elevation was found to be unstable thus preventing a thorough inspection of this section during the building inspection due to health and safety concerns.

*Further survey*

12. Phase 2 bat and bird activity surveys were considered as being robust and representative of protected species currently onsite. NO further survey recommendations are considered for protected bat and bird species (including Barn Owl),

*Mitigation licence*

13. In the absence of mitigation, it is considered highly unlikely that the proposed development will result in an offence under Regulation 41 or 4, thus it will NOT be necessary to apply for a mitigation licence from Natural England.

14. However, given the number of crevice-dwelling roost features onsite, coupled with the ability of common pipistrelle recorded around site to switch between roosts and exploit a greater spectrum of regimes; there is moderate to high potential that the building may have some transient use for individual bats over space and time.

15. A number of non-licensable site safeguard measures are therefore recommended within this report and should be made a condition of the planning consent:

- ***Timing of works*** -Best practice guidelines recommend that any works which encroach into the roof section area should ideally be carried out during autumn/winter (late Sept to Oct) to early spring (Jan to March), with September to October best recommended for synanthropic species such as common pipistrelle. If this is not possible, then extra care and vigilance during works should be undertaken by all contractors on site during works (*Section 65*).

- ***Soft demolition*** - Although it is considered unlikely that bats are encountered during works, contractors should be made aware of the potential presence of bats prior to commencement, and a copy of this report should be made available onsite during works. It is recommended that a 'soft demolition' approach is adopted during any roofing repair works (or any works that may encroach into roof sections) (Section 66).

- **IMPORTANT: Should any bats be discovered during works (or suspicion arise about the possible presence of bats, i.e. between gable-end cavities and intermediate layers obscured by roofing membrane), then ALL work must cease immediately and a licensed bat ecologist should be consulted straight away. Thereafter, the named ecologist should re-assess the structure, and determine whether works can continue without a licence from Natural England.**

***Foraging and commuting habitat***

16. It is considered that the proposed redevelopment will have no immediate impact upon on any major foraging and commuting habitat for bats. However, as a moderate level of foraging and commuting by individual common pipistrelle was intermittently recorded along the southern elevation of the building, consideration should be given to any post-development lighting scheme (see Section 69).

***Birds***

17. In the absence of mitigation, HIGH impact to a small summer breeding colony of European Swallow (N<5) is predicted. Works should ideally be undertaken outside the bird breeding season (March to August inclusive), and when the colony of European Swallow have vacated for their winter roost migration. Where this is not possible, then a check for nesting birds should be undertaken by an ecologist prior to works. It is recommended that a minimum of six pre-formed “cup-shaped nests” are integrated within the design of the development where possible (see Section 73-76).

***Biodiversity enhancement***

18. In accordance with the Natural Environment and Rural Communities (NERC) Act 2006, development proposals should seek, where possible, to enhance opportunities available to local bat and bird populations. It is recommended that a minimum of three bat boxes and four bird nesting boxes (suitable for different species) should also be incorporated into the final scheme. (see Section 79-80).

**NOTICE TO READERS**

**NON-TECHNICAL**

**SUMMARY CONTENTS**

**1. INTRODUCTION**
Site description
Proposed works
Aims of survey

***2.*** **SURVEY METHODOLOGY**
Summary of survey methods
Pre-survey data search
Surveyor information
Field surveys
- Habitat survey
- Roost survey
- Activity surveys

***3.*** **RESULTS**
Pre-survey data search
- Designated sites
- Protected species

Field surveys
- Habitat description
- Roost survey
- Activity survey

***4.*** **IMPACT ASSESSMENT**
Constraints on survey information
Constraints on equipment used
Potential impacts of development
- Designated sites
- Roosts
- Foraging and commuting habitat

Legislation and Policy guidance

***5.*** **RECOMMENDATIONS**
Further survey
Mitigation measures
Mitigation licence
Preliminary mitigation outline recommendations

**6. REFERENCES**
**7. APPENDICES**
**8. CONDITIONS AND DISCLAIMERS**

## 1. INTRODUCTION

1. Phase two bat and bird activity surveys were carried out by Charnia Ecology on behalf of Mr. G.Plant with respect to a Barn Conversion (opposite The Draycott Arms), Uttoxeter Road, Draycott. Stoke-on-Trent ST11 9RQ [NGR: SJ983400].

2. The objective of this report is to provide the client with information on the known and potential bat roosts and birds nesting within the building, and to outline recommendations on how to proceed with the works in a legal and ecologically sensitive manner should bats and birds be resent.

3. Bat and bird activity surveys were undertaken In accordance to current Bat Conservation Trust (BCT) guidelines, and carried out during May/June 2017 by a Natural England class 2 licensed bat ecologist and member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

### *Site description*

4. The proposed application area is located in the semi rural village of Draycott-in-the-Moors being situated ca 2.5miles south of Cheadle Town in North Staffordshire. The proposed development considers a stand-alone, traditional barn building constructed of red brick with a pitched tiled roof. The building is located immediately adjacent to the Draycott Arms pub and Draycott Road.

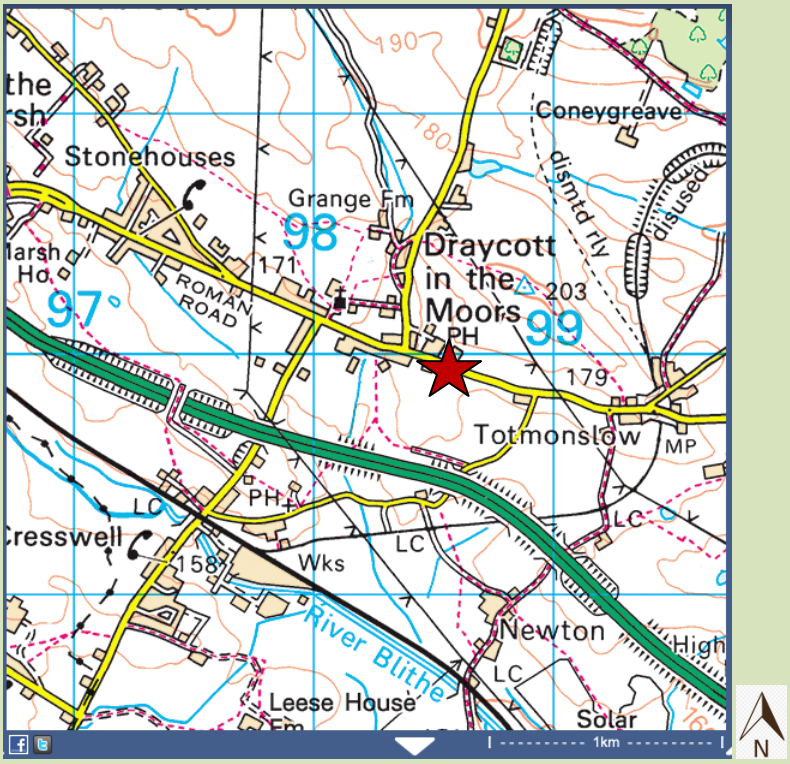



**Figure 1.** Location of proposed application (star) in context to the surrounding landscape (source:www.gridref.org.uk).

### *Proposed works*

5. It is understood that the proposed planning application considers conversion of the former barn building into a domestic dwelling.

**AIMS OF SURVEY**

6. The aims of Phase Two activity surveys is to provide information on any known and/or potential bat roosts and birds nesting within the proposed development area, and to outline recommendations on how to proceed with the works in a legal and ecologically sensitive manner, should bats and birds be present.

7. This report has been prepared with due consideration for various best practice guidance and methodologies including those of the Chartered Institute of Ecology and Environmental Management (CIEEM (2012)1, the emerging BS 42020 and BCT Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) 2016.

| **Bats** |
|---|
| • Probability of bats and their roost sites being present at the proposed redevelopment site i.e. buildings and trees |
| • To assess the roost status should bats be present. |
| • To assess commuting and foraging habitat that may be subject to impact from proposed development. |
| • To provide an overall impact assessment. |

**Table 1.** Aims of survey in relation to bats.

8. The scope of this appraisal has been determined in line with the proportional approach to ecological survey, assessment and subsequent recommendations for avoidance and mitigation of impacts, which is encouraged in the emerging 'BS 42020: Biodiversity – Code of practice for planning and development'.

- ***Legislation and policy guidance***

9. All species of bat are listed in Schedule 5 of The Wildlife and Countryside Act (1981) 1981 (as amended) and/or the Conservation (Natural Habitats, &c.) Regulations 1994 (2); including species listed in the UK and local Biodiversity Action Plans (BAPs) (See Appendix 5).

10. In Britain all bat species and their roosts are legally protected, by both domestic and international) .This means a criminal offence will be committed if you:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

11. A bat roost is interpreted as 'any structure or place, which any wild bat uses for shelter or protection (i.e. buildings, trees, bridges, tunnels etc.). Bats tend to show a high fidelity to roosts; subsequently, legal opinion regards a roost to be protected whether or not the bats are present at the time. There are many types of roost used by temperate bats during their annual cycle: Any structures found having evidence of bats will be further evaluated to assess which of the following roost categories may be present onsite (if any):

| Roost status | Description |
|---|---|
| **Maternity / Nursery Roost** | Used by breeding bats, where pups are born and raised to independence (Anecdotal evidence may support this prospect despite sub-optimal survey period). |
| **Hibernation Site** | Where bats may be found during the winter. (This is assessed within the context of this report). |
| **Daytime Summer Roost** | Used by males and/or non-breeding females (Seasonal limitations prevent robust analysis of this). |
| **Night Roost** | Where bats rest between feeding bouts during the night but are rarely present during the day. |
| **Feeding Roost** | Where bats temporarily utilize feeding perches and stations to eat an item of prey. |
| **Transitional (or Swarming) Site** | Where bats may be present during the spring or autumn (This cannot be assessed within the context of this report). |

**Table 2.** Bat roost status definitions

12. The survey protocol also considers all common wild birds that are protected under the Wildlife and Countryside Act 1981 (and as amended). This protection extends to bird nests during the breeding season, which makes it an offence to damage or destroy nests or eggs.

| Birds |
|---|
| • Establish if birds are using the site. |
| • Locate nest sites, if present. |
| • Assess what types of activities were shown within the redevelopment site. |
| • Assess suitable food resources and habitat requirements. |
| • Provide an impact assessment, if nests are found. |

**Table 3.** Aims of survey in relation to birds.

13. Certain rare breeding birds such as Barn Owl *Tyto alba*, are listed on Schedule One of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs and unfledged young. Survey protocol considers the following:

| Barn Owl (*Tyto alba)* |
|---|
| • Establish presence onsite. |
| • Establish potential nest sites (PNS). |
| • Locate any active roost sites (ARS). |
| • Locate any temporary roost sites (TRS) |
| • Assess potential feeding and dispersal habitats (PFH) |
| • Provide an impact assessment, should barn owl(s) be present |

**Table 4.** Aims of survey in relation to Barn Owl.

- ***Valued ecological receptors (VERs)***

14. Assessment also considers potential effects on Valued Ecological Receptors (VERs) and Zones of Influence (ZoI) during pre and post development, both onsite and off- site. The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development.

15. Should a likely significance of negative impacts to bats and/or birds be identified during the survey period, then further surveys, mitigation and enhancement measures may be necessary to prevent, offset or reduce the degree of impact that may occur should development commence. Should bats be present onsite, then a European Protected Species (EPS) development license issued by Natural England (NE) may be required prior to any works taking place.

- ***Mitigation***

16. The purpose of this report will only provide a preliminary outline of a bat mitigation strategy. A detailed method statement will need to be determined through consultation with an appropriately qualified and experienced bat ecologist thereafter, to fully support the aforementioned licence application.

17. Mitigation should be proportionate, justifiable and avoid or minimize any harm to species found during works, whilst ensuring the Favourable Conservation Status of local bat populations is maintained. Mitigation should be proportionate to:

    - Type and scale of works and predicted impacts on bats
    - Size, nature and complexity of the development site
    - Likelihood of bats being present or affected
    - Species and numbers of individuals concerned
    - Type of roost and/or habitat affected.

## 2. SURVEY METHODOLOGY

18. In accordance with BCT 3rd edition (2016) guidelines, the following survey protocol is considered appropriate to provide a full ecological evaluation of the site in order to determine the following criteria:

    - *What impact the redevelopment is likely to have on any protected species found at the site.*
    - *The need for any Natural England development licence application to be made in respect of activities concerning protected species.*
    - *Recommendations for any mitigation measures that would be required.*

- ***Pre-survey data search***

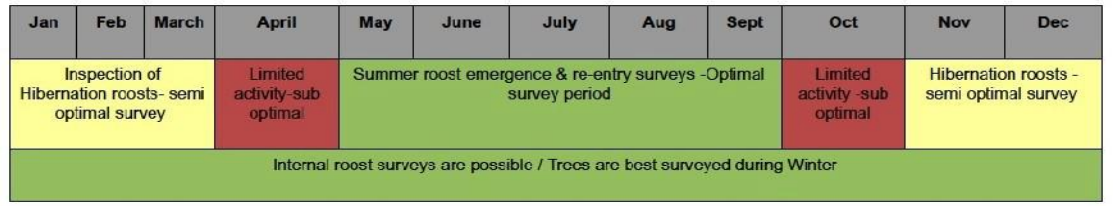
19. Pre-survey data search provided historical records of any protected bat and bird species found within a 2km radius of the application area. Additional ecological data has been sourced to understand any constraints that the proposed planning application may have on species and habitat in the wider landscape. The National (UK) and local (Staffordshire) Biodiversity Action Plans (BAPs) were also scrutinized for protected habitats and species relevant to the application area.

**20.** A number of electronic sources sites were also consulted including; www.magic.gov.uk; www.naturalengland.org.uk; Google Earth and www.ordinancesurvey.co.uk.

- ***Field surveys***

**21.** A walkover survey, including visual inspection of building and any trees, was undertaken to determine the availability of required resources for the protected species in the immediate area. The building was inspected both externally and internally for:

- Presence or absence of bats onsite (i.e. hibernating bats)
- Evidence and/or potential of bat roosts onsite (i.e. summer roosts)
- Whether additional surveys are required



| Jan | Feb | March | April | May | June | July | Aug | Sept | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Inspection of Hibernation roosts- semi optimal survey | | | Limited activity-sub optimal | Summer roost emergence & re-entry surveys -Optimal survey period | | | | | Limited activity -sub optimal | Hibernation roosts - semi optimal survey | |
| Internal roost surveys are possible / Trees are best surveyed during Winter | | | | | | | | | | | |

**Table 5.** Annual survey optimality for bats.

**22.** Phase 2 bat and bird activity surveys were conducted during an optimal period of the bat surveying season and with sufficient intervals between surveys to allow for any stochastic events over space and time. Weather conditions were optimal throughout all survey periods (Temp: >8°C / dry conditions). Assessment incorporated the use of binoculars, torch, endoscope and ladders where necessary.

***Surveyor information***

**23.** Ecological assessment on-site was overseen by **Mark Weston**, a Natural England licensed bat Ecologist (CLS00836 – Level 2) and member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Assistant ecologist(s):

- **Louise Cox** BSc (Hons)
- **Jade Leese** BSc, MSc

- ***Habitat survey***

**24.** The survey assessed habitat onsite in context to the wider landscape with regard to any important bat roosts, commuting/foraging areas that may be affected by the proposed development.

- ***Roost survey***

**25.** All potential roost structures (i.e. buildings) onsite or within the Zone of Influence of the proposed development were assessed, based on standard methodologies set out by Natural England, the Bat Conservation Trust (BCT) and the Joint Nature Conservation Committee (JNCC). External inspection considered suitable ingression points where species such as bats and birds could gain entry into any structures to roost and/or nest.

- Condition of roof i.e. missing or raised roof tiles;
- Condition of windows and doors i.e. broken panes;
- Potential ingression points around ridges and apex of the buildings;
- Any anecdotal evidence of bats I.e. droppings, grease marks, feeding remains;
- Any evidence of birds i.e. nest material, droppings.

**26.** The external inspection incorporated visual assessment with the use of torch, endoscope and ladders to ascertain the following:

- Any potential internal roost features i.e. non-illuminated areas, joints, crevices, beams and cavities.
- To locate potential roost/nest sites;
- To listen for any bats and birds;
- To examine floors, walls and structural elements for anecdotal evidence i.e. droppings, urine stains, corpses and feeding remains.

- ***Building rating***

**27.** In the absence of any evidence, trees and structures were assigned a rating of suitability from negligible to high potential for supporting bats. The rating is based on the number and type of features suitable for use by bats (such as rot holes, cavities and raised bark), location of the structure in the surrounding landscape and surveyor's experience (e.g. a structure with a high level of regular disturbance with few opportunities for access by bats, that is in a highly urbanized area with few or no mature trees, parkland, woodland or wetland would generally equate to having negligible potential. Conversely, a pre 20th century or early 20th century building with many features suitable for use by bats close to good foraging habitat would have high potential).

| Suitability | Description<br>Roosting habitats | Commuting and foraging habitats |
|---|---|---|
| Negligible | Negligible habitat features on site likely to be used by roosting bats. | Negligible habitat features on site likely to be used by commuting or foraging bats. |
| Low | A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[a] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation[b]).<br>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.[c] | Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.<br>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub. |
| Moderate | A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[a] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed). | Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.<br>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water. |
| High | A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[a] and surrounding habitat. | Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.<br>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.<br>Site is close to and connected to known roosts. |

[a] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
[b] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
[c] This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

**Table 6.** Habitat assessment (BCT, 2016)

- ***Activity surveys***

**28.** Under new BCT guidelines (2016), the number of prescribed activity surveys are based on initial overall building rating and suitability to support roosting bats:

| Low roost suitability | Moderate roost suitability | High roost suitability |
|---|---|---|
| One survey visit. One dusk emergence or dawn re-entry survey[a] (structures).<br><br>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] |

[a] Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.
[b] Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

**Table 7.** Survey effort in relation to roost suitability (BCT, 2016).

**29.** Activity surveys combined an overall assessment of any *in-situ* roost onsite, and any other Valued Ecological Receptors (VERs) considered to be within the Zone of Influence (ZoI) of the development, whilst considering any important commuting and foraging routes used by bats.

**30.** All activity surveys were undertaken in accordance with the guidelines published by the BCT 3rd edition 2016 to ascertain the following:

- Determine the presence/absence of species, i.e. the species present in a given area
- Determine the intensity of bat activity both spatially and temporally
- Determine the type of activity i.e. foraging (by feeding buzzes);commuting (by high directional pass rates); mating (by mating social calls)
- Find roosts by tracking back bat flight paths or observing commuting range

**31.** Evidence will be used to determine whether a European Protected Species (EPS) licence will be required to ensure legal compliance during development. This will also include identifying which mitigation measures [if any] would be most appropriate.

- ***Dusk emergence survey***

**32.** The object of this survey is to detect active bats leaving possible roost sites identified in the external and internal surveys. This was achieved by:

- Being at the site 1 hour before sunset.
- Listening for social calls at potential roost sites.
- Standing at different transect points around the buildings, to record any emerging bats and egress points.
- Standing at different transect points to assess foraging/commuting areas.
- Carrying out survey up to 1.5 - 2 hours after sunset to holistically consider interspecific differences between different bat species

- ***Dawn re-entry survey***
    - Being at the site 2 hours before sunrise.
    - Listening for social calls at potential roost sites.
    - Standing at different transect points around the buildings, to record any swarming behaviour around potential re-entry points.
    - Standing at different transect points to assess foraging/commuting areas.

**33.** Bat ultrasound data was gathered using a number of heterodyne units (Batbox Duet and SSF Bat2) and real-time recording devices (*EcoObs* Batcorder). Real time recordings were subsequently analyzed using BatSound v4.03 and statistical algorithm analysis was carried out using *EcoObs* BcAdmi, BatIdent and BcAnalyze software to provide an unbiased discrimination of species onsite.

- ***Weather conditions and timing***

**34.** All surveys were carried out during optimal survey conditions, with a minimum interval of two weeks between surveys to allow for stochastic events over space and time.

## 3. RESULTS

### *Designated sites*

**35.** Pre-survey data search shows the application area falls within Area 64 Potteries and Churnet Special Landscape Area. There are four non-statutory designated nature conservation sites within 2km of the proposed application site that include three Sites of Biological Importance (SBI) and one Biodiversity Alert Site (BAS).

| | |
|---|---|
| **Huntley Wood & Quarry SBI** (SJ988416)<br>Non- statutory designated site of importance for nature conservation. Oak-Birch ancient and semi-natural woodland.<br><br>- Huntley Quarry and Wood contain a number of protected, UKBAP and SBAP species including badgers, bats and solitary bees and wasps. It | - Huntley Wood is also listed on the Ancient Woodland Inventory (AWI) asAncient and Semi-Natural Woodland (ASNW). There is also a site of regionally important geology known as Huntley Railway within 1km of the survey site.<br><br>- The geology of the site is that of Triassic Sherwood sandstone the Hawksmoor Formation. The quarry |
| **Draycott Common Wood BAS** (SJ996412) | Non- statutory designated site of potential importance for nature conservation. Important at County level. |
| **Freehay Wood SBI** (SK018416: 1.2km NE) | **Commonside Quarry SBI** (SJ989421). |

**Table 8.** Designated sites in a 2km radius.

### *Protected species*

**36.** Pre-survey data finds seven British bat species are currently given UK BAP (2007) Priority Species Status. National Biodiversity Network and Staffordshire Wildlife Trust (SWT) records show that 11 of the 17 resident UK bat species occur in the county with two UK BAP species being recorded within 2km of the proposed application area (highlighted in orange):

| UKBAP | Common name | Species | Recorded within 2km |
|---|---|---|---|
| ☑ | BROWN LONG-EARED BAT | *Plecotus auritus* | ☑ |
| ☑ | BARBASTELLE BAT | *Barbastella barbastellus* | ☒ |
| ☑ | BECHSTEIN'S BAT | *Myotis bechsteinii* | ☒ |
| ☑ | NOCTULE | *Nyctalus noctula* | ☑ |
| ☑ | GREATER HORSESHOE BAT | *Rhinolophus ferrumequinum* | ☒ |
| ☑ | LESSER HORSESHOE BAT | *Rhinolophus hipposideros* | ☒ |
| ☑ | SOPRANO PIPISTRELLE | *Pipistrellus pygmaeus* | ☒ |

**Table 9.** UKBAP Bat species recorded within Staffordshire.

**37.** A further four/five bat species that are not currently given UK BAP consideration are also recorded within the county, whilst SER data and personal observations show three of these species are recorded within a 1km radius of the site (highlighted in orange):

| UKBAP | Common name | Species | Recorded within the county |
|---|---|---|---|
| ☒ | NATTERER'S BAT | *Myotis Nattereri* | ☑ |
| ☒ | DAUBENTON'S BAT | *Myotis daubentonii* | ☑ |
| ☒ | WHISKERED / BRANDT'S BAT | *Myotis mystacinus/brandtii* | ☑ |
| ☒ | COMMON PIPISTRELLE | *Pipistrellus pipistrellus* | ☑ |

**Table 10.** Non UKBAP Bat species recorded in Staffordshire.

**38.** Pre-survey data show no records of any bat roosts within the application area itself. Barn Owl (*Tyto alba*) is recorded within a 2km radius of the application area.

- ***Field surveys***

**39.** The proposed application is situated in a semi-rural setting of the Staffordshire Moorlands, and falls under the Regional (Joint) Character Area of 64 Potteries and Churnet Valley, comprising of 'Ancient Slope and Valley farmlands' landscape character types. The surrounding landscape consists of lowland heath and agricultural farmlands, with a number of woodland blocks and water-bodies present. A number of operable and defunct sand and gravel quarries are also present in the immediate landscape.

**40.** Whilst the wider landscape provides a number of valuable resources for local bat and bird populations, the land was considered as being somewhat land-locked by arterial roads and busy public highways immediately to the North (Uttoxeter Road) and ca. 500m due South (A50), which may present potential barriers and sinks for commuting bats onto site.




**Figure 2.** Aerial view of proposed development area (red) in context to the wider landscape (source:google earth).

- ***Roost survey***

**41.** The building is ca. 25m x 6m in dimension with an overall footprint of ca. 150m$^2$. The building comprises of an original, rectangular building section, aligned east to west which has been extended on the west facing gable-end at a later period.

**42.** External inspection of the building recorded numerous ingression points for both bats and birds (including Barn owl) with missing/raised roof tiles recorded across both north and south facing roof pitches, whilst sections of the roof were found to be damaged/missing towards the west facing gable-end section. Noticeable gaps and crevices were also recorded between brick-work and roof verges , with a number of open doors and broken windows present around north, south and west elevations.

**43.** A cavity hole was recorded in a mature tree immediately adjacent to the west facing gable-end of the building which was considered as having some potential for roosting bats, and deemed as being within the zone of influence of the proposed development. It is understood that this tree is proposed for removal. No evidence of bats or Barn owl was recorded during the external inspection.

**External View**



**Figure 3.** NW elevation adjacent to roadside.



**Figure 4.** SE elevation.



**Figure 5.** SW Elevation.



**Figure 6.** Southern elevation



**Figure 7.** Tree cavity adjacent to West gable-end



**Figure 8.** Southern elevation

- ***Internal inspection***




**Figure 9.** Layout of internal compartments

**44.** The extended section on the most westerly elevation comprises of three internal ground-floor compartments (1,2 &3), and an interconnecting first floor roof void. The ground-floor compartments were found to be largely open -ended along the western elevation and subsequently exposed and influenced by external abiotic fluctuations.

**45.** Evidence of nesting wren *Troglodytes troglodytes* was recorded to the underside of first floor timber rafters in ground floor compartment 2. The first floor above these three compartments was found to be in a state of partial collapse, with holes evident above much of the ground-floor compartment areas. A thorough inspection of the first floor was therefore not possible due to health and safety concerns but was instead, inspected via ladder through broken floor board sections.

**46.** The first floor void was found to be interconnecting throughout with exposed timber purlins and roof tiles present. The floor level was found to be heavily contaminated with detritus, and the underside was void of roofing felt, with original plaster sarking present. Much of the area was seen to be semi-illuminated by light ingress through broken roof tile sections and a large open window on the west gable-end compartment (1).

**47.** The original part of the building comprised of three further compartments which are open to roof level (4, 5 & 6). Corrugated staging is part present in the largest central compartment area (4). Once again the compartment was found to be partially illuminated by light ingress through broken windows and doors along the north and south elevations.

**48.** The area was however found to be voluminous with timber truss work exposed at height, providing good potential for pre-emergent void dwelling bat species (i.e. brown long-eared bat). The underside of the roof was partially felted providing potential roosting areas behind. A number of cracks and cavities were noted around upper sections of internal retaining walls, although it was not possible to inspect these areas due to height constraints.

**49.** All compartments were found to be cluttered with varying degrees of detritus throughout, thus restricting inspection at floor level marginally. Three Swallow *Hirundo rustica* nests were recorded on the underside of timber purlins/trusswork in the internal compartment on the east gable-end side (6). No evidence of bats or Barn owl was recorded during the internal inspection.

**Internal layout**



**Figure 10**.Looking west in ground-floor compartment 4.



**Figure 11.** Looking up into the first floor area above compartment 2



**Figure 12.** Mezzanine staging below central roof section



**Figure 13.** Broken roof section on western elevation.



**Figure 14.** Broken roof section on western elevation



**Figure 15.** Roof section in compartment 4

### *Overall building rating*

**50.** Despite no physical or anecdotal evidence recorded during the assessment, the building pertains to a number of features suitable for roosting bats. Overall building rating is therefore considered as being MODERATE HIGH for both crevice-dwelling bats and void dwelling bats.

**51.** The building has high potential for an amber listed bird species, with a small colony of Barn swallow recorded. The building also has high potential for individual, nesting passerine birds. The building has moderate to high potential for Barn owl although no evidence was recorded during the building inspection,

- ***Activity surveys***

**52.** Based on building rating, three activity surveys (2 x dusk / 1 x dawn) were assigned to the structure, and carried out during an optimal surveying period and under suitable weather conditions (See Appendix).

**53.** Overall, bat activity onsite was low, with all activity condensed along the southern elevation. Zero activity was recorded along the northern elevation which immediately abuts onto a busy public highway with road side lighting.

**54.** No bats were recorded emerging from the building and/or re-entering during dusk and dawn activity surveys. No evidence of void-dwelling bat species were recorded during periodic internal inspections throughout all stages.

**55.** No evidence of Barn owl was recorded during the survey periods.

### *Foraging and Commuting*

**56.** Low to moderate levels of individual common pipistrelle were transiently recorded commuting and foraging predominantly along the southern elevation, with a low number of bat passes assigned to common noctule, which were characteristically recorded commuting at height over the site shortly around both dusk surveys.



**Figure 16.** Commuting route used by individual common pipistrelle

# 4 IMPACTS & RECOMMENDATIONS

### *Constraints on surveyinformation*

**57.** The roof void on the western elevation was found to be unstable thus preventing a thorough inspection of this section during the building inspection due to health and safety concerns.

**58.** Other than that, no constraints were encountered during Phase 2 bat and bird activity surveys and the ecological impact assessment is considered as being robust and representative of protected species currently onsite.

- ***Bats***

**59.** No evidence of any notable bat roosts of conservation concern was found within the building subject to development, or within any structures considered as being with the ZoI during the survey period.

**60.** In summary, it is considered that roost potential of the structure is reduced by being semi-illuminated and partially exposed to external elements, whilst also being somewhat land-locked and subject to frequent disturbance and reduced connectivity (due to busy arterial public highways on north and south flanks).

### *Further survey*

***61.*** **NO** further survey recommendations for protected bat and bird species (including Barn Owl) are considered.

### *Mitigation licenses*

**62.** In the absence of mitigation, it is considered highly unlikely that the proposed development will result in an offence under Regulation 41 or 4, thus it will NOT be necessary to apply for a mitigation licence from Natural England.

**63.** However, given the number of crevice-dwelling roost features onsite, coupled with the ability of common pipistrelle recorded around site to switch between roosts and exploit a greater spectrum of regimes; there is moderate to high potential that the building may have some transient use for individual bats over space and time.

**64.** The following site safeguard measures are therefore recommended and should be made a condition of the planning consent:

**65.** Mitigation should be proportionate, justifiable and avoid or minimize any harm to species found during works, whilst ensuring the Favourable Conservation Status of local bat populations is maintained. Mitigation should be proportionate to:

- Type and scale of works and predicted impacts on bats
- Size, nature and complexity of the development site
- Likelihood of bats being present or affected
- Species and numbers of individuals concerned
- Type of roost and/or habitat affected.

- ***Timing of works***

66. Best practice guidelines recommend that any works which encroach into the roof section area should ideally be carried out during autumn/winter (late Sept to Oct) to early spring (Jan to March), with September to October best recommended for synanthropic species such as common pipistrelle. If this is not possible, then extra care and vigilance during works should be undertaken by all contractors on site during works.

- ***Soft demolition***

67. Although it is considered unlikely that bats are encountered during works, contractors should be made aware of the potential presence of bats prior to commencement, and a copy of this report should be made available onsite during works. It is recommended that a 'soft demolition' approach is adopted during any roofing repair works (or any works that may encroach into roof sections) ; whereby all roof tiles should be carefully removed individually and inspected around the underside, before proceeding in a systematic 'top-down' approach.

68. **IMPORTANT:** Should any bats be discovered during works (or suspicion arise about the possible presence of bats, i.e. between gable-end cavities and intermediate layers obscured by roofing membrane)**,** then **ALL work must cease immediately** and a licensed bat ecologist should be consulted straight away. Thereafter, the named ecologist should re-assess the structure, and determine whether works can continue without a licence from Natural England.

***Foraging and commuting habitat.***

69. It is considered that the proposed redevelopment will have no immediate impact upon on any major foraging and commuting habitat for bats, with the existing footprint(s) to be retained and no additional land uptake / alteration to existing landscape / habitat intended.

- ***Lighting***

70. As a moderate level of foraging and commuting by individual common pipistrelle was intermittently recorded along the southern elevation of the building, the use of low energy LED lighting to minimize light spill around the building should be incorporated if necessary.

71. Alternatively, Low-pressure sodium lamps (SOX) are recommended, which should be fitted with hoods to direct the light below the horizontal plane to minimize light-spill. Where necessary any security lighting will be less than 200 lumens (150 watts) and placed on a timer setting and faced down to reduce sky glow. Height of any columns around the development should not exceed eight metres.

- ***Birds***

72. Consideration should be given to nesting birds which are protected under the Wildlife and Countryside Act 1981 (as amended). In the absence of mitigation, HIGH impact to a small summer breeding colony of European Swallow (N<5) is predicted.

73. It is recommended that a minimum of six pre-formed "cup-shaped nests" are integrated within the design of the development where possible. Provision can also be made in open-fronted log-sheds, car ports or porches. These should be placed internally at height (preferably on beams), being at least 1m apart.

74. If this is not possible then installation of external eaves/ridge overhang boxes with an open bottom and ledges for swallows to nest on should be implemented as an alternative. Further guidance by a suitably qualified ecologist should be sought in this event.



**Figure 17.** Pre-formed swallow cup nests

75. Works should ideally be undertaken outside the bird breeding season (March to August inclusive), and when the colony of European Swallow have vacated for their winter roost migration. Where this is not possible, then a check for nesting birds should be undertaken by an ecologist prior to works.

76. Should any active bird nests be found, then these should be left undisturbed until offspring have fully fledged. It may be necessary to enforce an exclusion work zone of 5m to reduce disturbance and minimize potential displacement of nesting birds.

77. No evidence of Barn owl was recorded and NO further recommendations are considered.

- ***Biodiversity enhancement***

78. In accordance with the Natural Environment and Rural Communities (NERC) Act 2006, development proposals should seek, where possible, to enhance opportunities available to local bat and bird populations.

79. It is recommended that a minimum of three bat boxes and four bird nesting boxes (suitable for different species) should also be incorporated into the final scheme. Recommended commercially available woodcrete Bat boxes, such as Schwegler 1FF / 2FN or are considered to be suitable receptors for crevice-dwelling bats.

80. Due to the close proximity of a busy public highway, it is not advised to locate such boxes along the northern elevation and frontage, due to increased risk of mortality from road traffic collision. It is recommended that all bat and bird boxes are contained to the rear of the building which extends out into open countryside on the southern flank, and should be fitted to either mature trees or to external elevation of buildings where possible at height (ca. 4-6m).



**Figure 18.** Schwegler 2FN bat box



**Figure 19.** Schwegler 1FF bat box

Further information of increasing biodiversity prospects for roosting bats can be found on the Bat Conservation Trust website: http://www.bats.org.uk/pages/new_build.html.

**81.** Bird nesting boxes should be positioned at ca. 2-4m above ground level where possible.

- Further information regarding nest boxes can be found on the RSPB website: http://www.rspb.org.uk/advice/helpingbirds/nestboxes/smallbirds/siting.aspx

- ***Landscaping***

**82.** Should any landscaping be considered at a later date, then it is recommended that only native tree and shrub species are planted. In particular, no plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 should be planted during any landscaping around the conversions.

- For further details of Schedule 9 plants visit the Defra website: www.defra.gov.uk/wildlife-pets/non- native.

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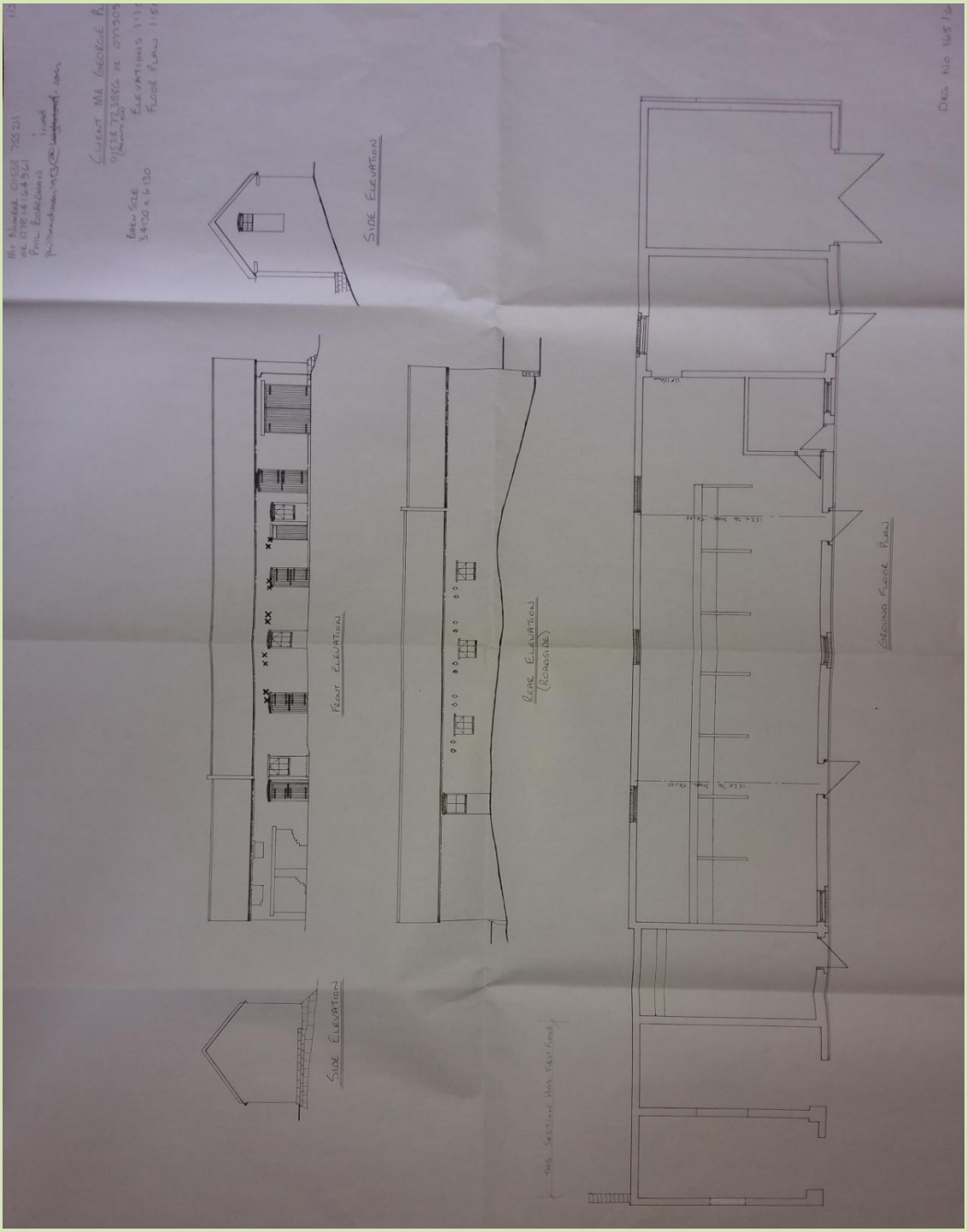
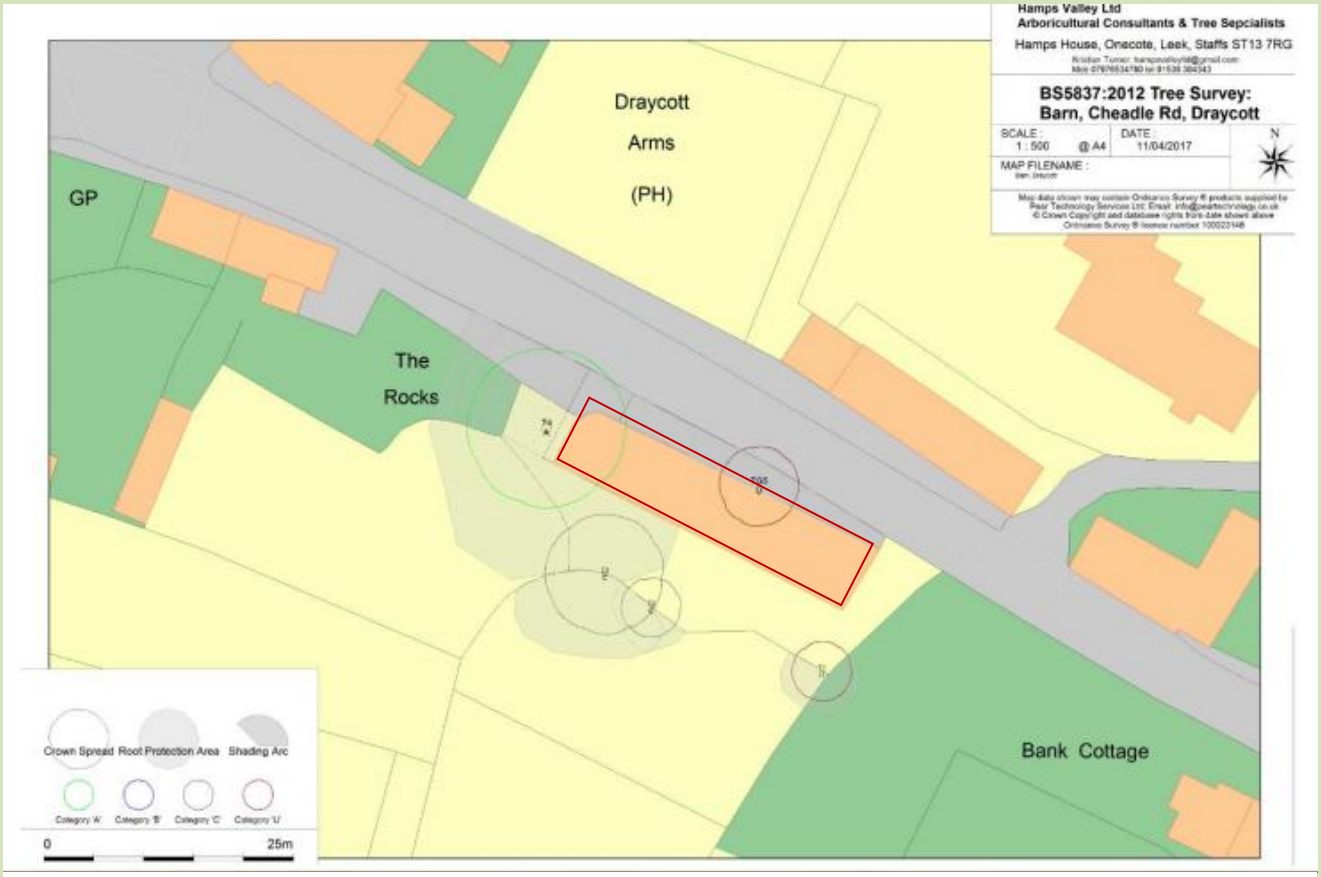
## APPENDICES

*Appendix 1 – Maps & forms*






HAMPS VALLEY LIMITED

TREE DATA TABLE. APPENDIX 3: Barn, Draycott

| Tree ID | Tree Type | Maturity | Height (m) | Height and dfs branch (m) | Stem dia (mm) | Crown Spread (m) | Crown height (m) | Crown Cond'n | Stem Cond'n | Cat | Phys Cond'n | Action | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T1 | Sycamore | Semi Mature | 10 | 2N | 247 | 3 | 2 | Fair | Poor | U | Fair | Remove | |
| T2 | Holly | Mature | 11 | 1N | 217 | 3 | 0 | Fair | Fair | C | Fair | Retain and protect | Crown Raise to 3m |
| T3 | Sycamore | Semi Mature | 16 | 1E | 470 | 6 | 1 | Fair | Fair | C | Fair | Retain and protect | Crown Raise to 5m |
| T4 | Sycamore | Mature | 23 | 9N | 960 | 8 | 5 | Fair | Fair | A | Fair | Retain and protect | Crown raise over building including the removal of 2 lower limbs with a diameter of approx 250mm to give 3m clearance from building. Remove lowest limb on the South side approx diameter 200. Lowest limb over the power cables on the West side has a defect. Reduce limb by |

| Tree category and description | Further action required |
|---|---|
| **Known or confirmed roost** | |
| Evidence of bat roost is already confirmed | Consider retention of tree in first instance. Should the tree be considered dangerous or diseased, then sufficient effort to establish population data and number of bat species should be attained before any remedial works or felling is undertaken. Should disturbance and modification to a known bat roost be likely, then a European Protected Species licence is required. |
| **High Roost Potential** | |
| Trees with features such as:<br>- Cavities incl. Rot holes, woodpecker holes, natural crevices<br>- Cracks/splits in major limbs<br>- Dense epicormic growth<br>- Dense epiphyte coverage<br>- Loose bark<br>- Bat and Bird boxes<br>- Staining/droppings | Any remedial works or removal of trees assessed as having HRP will necessitate further surveying to prove absence of bat roost. This will include activity surveys and a climbing endoscope survey prior to works. Should evidence of bats be found, then a European Protected Species licence will be required, and the roost status of the tree should be upgraded. |
| **Moderate Roost potential** | |
| Tree may exhibit once or more of the features described for HRP. | Any remedial works or removal of trees assessed as having MRP will necessitate further surveying effort to prove absence of bat roost. This should include emergence and re-entry surveys during an optimal surveying period (May to September), and if necessary, a climbing endoscope survey prior to works. Should evidence of bats be found, then a European Protected Species licence will be required, and the roost status of the tree should be upgraded. |
| **Low Roost Potential** | |
| Tree may exhibit less notable features as described in MRP, but are considered less suitable for bat utilization | Any remedial works or removal of trees assessed as having LRP should be taken outside the bat and bird breeding season. Should features be discovered that may be beneficial to bats and birds, then all care must be taken to retain such features if possible. |
| **Negligible Roost Potential** | |
| Trees exhibits no notable features for bat utilization | No further surveying effort is recommended. Any remedial works or felling should ideally be undertaken outside the bird breeding season (March to September) |

## Survey data

| *Timing & Weather conditions* | Dusk emergence (2) 01.05.2017 | Dawn re-entry (2) 16.05.2017 | Dusk emergence (2) 13.06.2017 |
|---|---|---|---|
| **SUNSET:** | 20:36hrs | 05:09hrs | 20:36hrs |
| **START TIME** | 20:20hrs | 02:20hrs | 20:20hrs |
| **FINISH TIME** | 22:20hrs | 04:40hrs | 22:20hrs |
| **TEMP START** | 10°C | 10°C | 10°C |
| **TEMP FINISH** | 8 °C | 13.5°C | 8 °C |
| **WIND SPEED** | <1 | <1 | <1 |
| **CLOUD COVER START** | 40% | 20% | 10% |
| **CLOUD COVER FINISH** | 50% | 20% | 30% |
| **PRECIPITATION** | NIL | NIL | NIL |

***Main highlights:***

| *Species recorded:* | *(%)* | *Activity* | *Roo* |
|---|---|---|---|
| **common pipistrelle** *Pipistrellus pipistrellus* | *100%* | LOW to MODERATE : Individual common pipistrelle transiently recorded as commuting and foraging, predominantly along the southern elevation | **NO** |
| **Common Noctule** *Nycatuls noctula* | *100%* | LOW: Individuals characteristically recorded intermittently commuting at height over the site shortly around dusk and throughout the survey period | **NO** |
| ***Overall commuting/ foraging activity:*** | • *LOW to MODERATE: Sustained over short intervals along the southern elevation. Zero activity along northern elevation/ road side* | | |
| ***Overall Roost status:*** | • *No bats were recorded emerging from the building*<br>• *No evidence of pre-emergent flight during periodic internal inspection.* | | |

## *Appendix 3 – Policy guidelines*

| | |
|---|---|
| **PAS 2010** | *The published 'PAS 2010' 'Planning to halt the loss of biodiversity' which is the government's new policy aimed at all authorities and developers involved in the planning process in the UK to halt biodiversity decline by 2010 and deliver net biodiversity gains as part of the green infrastructure provisions.* |
| **National Planning Policy Framework, Section 11:** | *The recently published framework in 2012, replaces the previous Planning Policy Statement 9. Section 11: Conserving and enhancing the natural environment, reaffirms the Governments commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife, aims to improve the quality of the natural environment, and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.* |
| **Article 10 of the EC Habitats Directive:** | *The published Article requires government to develop features such as 'stepping stones' on the landscape, such as clusters of ponds, tracts of rough grassland or scrubland and vegetated railway line embankments.* |
| **Wildlife and Countryside Act 1981:** | *All species of bat are fully protected under the Wildlife and Countryside Act 1981, the European Conservation (Natural Habitats etc.) Regulations 1994, and the Countryside and Rights of Way Act 2000. This legislation makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.* |
| **Conservation of Habitats and Species Regulations (2010)** | *The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994, in respect of England and Wales. It is an offence to possess, sell or offer, or transport for sale any European species of bat or any part derived from such a species. These Regulations also remove the 'incidental result defence'. In other words, it is no longer a defence to show that the killing, capture or disturbance of a species covered by the Regulations or the destruction or damage of their breeding sites or resting places was the incidental and unavoidable result of a lawful activity. Natural England can grant European Protected Species (EPS) licences in respect of development to permit activities that would otherwise be unlawful.* |
| **Natural Environment and Rural Communities Act (2006)** | *Under Section 40 of the Natural Environment and Rural Communities Act (2006), public bodies, including Local and Regional Planning Authorities, have a duty to 'have regard' to the conservation of biodiversity in England when carrying out their normal functions, which includes consideration of planning applications. In compliance with Section 41 of the Act, the Secretary of State has published a list of species considered to be of principal importance for conserving biodiversity in England. This is known as The England Biodiversity List, all of which make up the UK BAP Priority Species. Regional Planning Bodies and Local Planning Authorities will use it to identify the species that should be afforded priority to maintain, restore and enhance species and habitats.* |
| **Bird legislation** | *Most resident nesting birds are protected under the Wildlife and Countryside Act 1981, which protects birds, nests, eggs and nestling's. Some rarer species, such as barn owls, are afforded extra protection.* |

**Table A. Policy guidelines.**

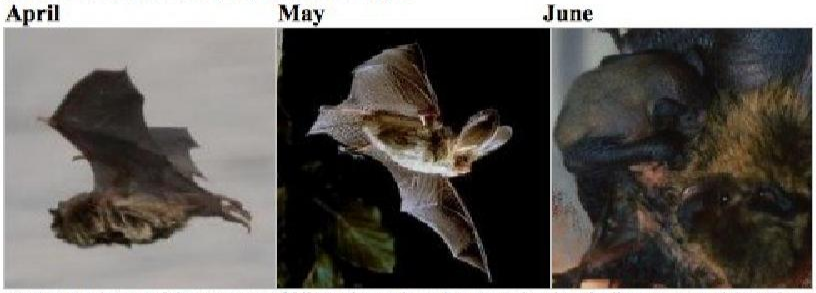
## *Appendix 4* – Annual life cycle of a temperate bat

**January** **February** **March**



**Jan:** Bats spend most of the winter hibernating, a state of inactivity characterised by lower body temperature, slower breathing, and lower metabolic rate. **Feb:** Bats are still hibernating. They have little fat left to live off of now. They may leave the roost on warmer nights to find food and a drink of water. **March:** Bats may begin to emerge and signs of limited activity can be seen. There are small numbers feeding as it gets warmer. In bad weather, they may become torpid.

**April** **May** **June**



**April:** Bats have mainly come out of hibernation and are hungry and active, feeding on most nights. They may be moving between several roost sites. They may become torpid (cool and inactive) again when cold. **May:** Bats are fully active and feeding. Females start forming maternity colonies and looking for suitable nursery sites, such as buildings or trees. Males will roost on their own or in small groups. **June:** Female bats usually give birth to a single pup, which they feed on their milk. Young bats are very small (less than an inch) with thin, slightly grey fur. Adult bats will catch thousands of insects each in a night.

**July** **August** **September**



**July:** Mothers continue to suckle young. Some young are growing fast and almost full-size; others are still very small. At around three weeks old, young bats are sometimes found on the ground as they learn to fly. **Aug:** At six weeks old, the young bats begin to catch insects for themselves and no longer need their mothers' milk. The summer maternity colonies begin to disperse and bats may move to mating roosts. **Sept:** Mating season begins, with males of most species using special mating calls to attract females, which can include purrs, clicks, and buzzing. Bats are also concentrating on building up fat stores for the coming months.

**October** **November** **December**



**Oct:** More mating is taking place, and building up fat reserves is becoming crucial to survive the winter season. Bats are seeking suitable hibernation sites, and beginning periods of torpor. **Nov:** Periods of torpor are lasting longer. Some begin hibernation, to save energy over the colder months, when insects are harder to find. They are using stored fat as fuel. **Dec:** Bats are hibernating. They may roost on their own or in small groups, often in cool, quiet places like disused buildings, old trees or caves, where they hopefully won't be disturbed. **(Source: Bat Conservation Trust).**

# CONDITIONS & DISCLAIMERS

## *Services*

**83.** This statement has been prepared with all reasonable skill, care and diligence, within the terms of the contract with the client. The actions of the surveyor on site and during the production of the report were undertaken in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management (www.cieem.org.uk). No part of this document may be reproduced without the prior written approval of:

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T/A **Charnia Ecology**, Foxglove Cottage, Boundary, Cheadle, Staffordshire. ST10 2NU.

Telephone: **01538 750514**
email: **mc.weston@hotmail.co.uk**

**84.** Should any part of this report be lost, or altered without the written consent of the author, then the entire report becomes invalid

**85.** The general format of reports is a certified product and cannot be shown, copied or distributed to third parties without the permission of the author. No liability is accepted for the contents of the report, other than to that of the client(s).

**86.** The report will purport not to express any opinion or comment as to the condition or structural integrity of any building; and no reliance should be made on any such comments other than description regarding suitability of species.

**87.** Every attempt has been made to provide an accurate ecological assessment under the current wildlife legislations at the time of surveying. The author cannot be made accountable for stochastic events over space and time.

**88.** The author remains impartial to any decision making and attempts only to make recommendations in the interests of conserving protected species and biodiversity, whilst acknowledging sustainable development.

## *Fees*

**89.** The client(s) will settle the agreed fee in full, within 30 days of receiving the invoice unless otherwise specified. Reports will remain the property of Charnia Ecology until full payment has been received. No liability is accepted for the contents of a report that is not paid in full. Any queries should be notified to Charnia Ecology within 7 days of the invoice date.

**90.** Should the client(s) fail to pay within the time specified, a 4.5% monthly service charge will be incurred on all overdue balances until payment is made in full (A part of a month being treated as a full month for the purposes of calculating interest). In the event that it is necessary to recover any outstanding fees from the client(s), the client(s) will fully reimburse any costs and expenses incurred during the recovery period, including court costs. Charnia Ecology reserves the right to withdraw any report work submitted to the relevant Local Planning Authority at any given time.