

8 Riley Road, Tilehurst, Reading

Bat Survey Report Draft

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Report prepared for:

Mr Dan Stannard

Main contributors:



Tessa Pepler BSc (Hons), MSc, MCIEEM

Principal Ecologist

Reviewed by:

Matt Johns BSc MSc CEnv MCIEEM FGS MIFM

Director

Issued by:

Tessa Pepler

Suites 1 & 2, The Old Brewery, Newtown, Bradford on Avon, Wiltshire, BA15 1NF
T: 01225 723652 | E: info@johnsassociates.co.uk | W: www.johnsassociates.co.uk

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NON-TECHNICAL SUMMARY

Scope	Description
Purpose of the Report	To provide an assessment of the brown long-eared <i>Plecotus auritus</i> bat roost identified within the roof void of the residential property at 8 Riley Road, Tilehurst on 12 February 2020 (8 Riley Road, Tilehurst, Reading Preliminary Ecological Impact Appraisal & Bat Roost Inspection, 25 March 2020) in support of a planning application for demolition of the existing building and construction of four new residential dwellings and subsequent registration of the site with Natural England for a low impact mitigation licence. A roost characterisation and compensation, mitigation and enhancement measures are provided.
Surveys Undertaken	Two emergence surveys (7 May, 4 June 2020) and one re-entry survey (23 June 2020) were conducted. A re-inspection of the roof void was conducted on 7 May 2020.
Summary of Results	Approximately 50 bat droppings were recorded within the roof void of the residential building during a Preliminary Ecological Appraisal (PEA) and Bat Roost Inspection (BRI) on 12 February 2020. The bat droppings were identified to be that of brown long-eared bat on 24 February 2020 by Swift Ecology. No bats were observed emerging or re-entering the building during the bat roost activity surveys.
Conclusions	One brown long-eared bat day roost supporting low numbers of bats (up to five bats) was present within the roof void at 8 Riley Road. No bats were recorded emerging or re-entering the building during the surveys conducted. No further bat droppings were recorded in a subsequent inspection of the roof void on 7 May 2020.
Mitigation	A Low Impact Bat Mitigation Licence for the site will be registered with Natural England once planning permission has been granted and prior to the commencement of any construction works. The licence permits the disturbance and capture of bats and/or damage/destruction of no more than three low conservation significance roosts affecting no more than three of the more common species of bats present in small numbers. The Named Ecologist on the Mitigation Licence will supervise a soft demolition of the roof of 8 Riley Road which will involve stripping the tiles off the roof by hand.
Compensation	A compensation bat roost will be integrated into the roof void of the proposed residential building within Plot 4 at the site. The bat roost will be of the same height as the current roof void at 8 Riley Road (2.1 m). One Schwegler 1 FE bat access tube will be installed at the apex on the east face of the building. Two bat access tiles will be installed on the roof of the property; one on the north face and one on the south face of the roof.
Enhancements	Three Schwegler 2 FR bat tubes will be incorporated within the proposed development to enhance the site for bat species. Two bat tubes will be located on the south face of Garage 2, each side of the apex and one bat tube will be installed on the east face of the proposed residential building within Plot 2 at the apex. The south faces of the properties have higher light spill from windows and as a result the east face is preferential; the east face additionally faces the woodland habitat. Native vegetation including night scented species will be included within the landscaping plans and will be planted to allow screening/flight routes to the compensation roost.
Data Valid Until	24 June 2021

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1 INTRODUCTION

1.1 BACKGROUND

Johns Associates Ltd was commissioned by Mr Dan Stannard to undertake a Bat Roost Inspection (BRI) and bat roost activity surveys at 8 Riley Road, Tilehurst, Reading to inform a planning application for the site and to inform a low impact bat mitigation licence for the site.

Evidence of a brown long-eared bat *Plecotus auritus* day roost comprising up to 50 bat droppings (DNA analysis confirmed) was recorded during a BRI conducted on 12 February 2020 (J00521 Preliminary Ecological Appraisal & Bat Roost Inspection, Johns Associates Ltd on half of Mr Daniel Stannard, 25 March 2020). This report should be referred to for the full BRI results including a description of the buildings within the site.

1.2 SUMMARY OF PROPOSALS

The proposed development comprises the demolition of the existing residential property at 8 Riley Road and the construction of four residential properties within the footprint of the existing property, garden and an area of amenity grassland to the north of the property which will be purchased for the development.

1.3 PURPOSE OF THIS REPORT

This report provides an assessment of the potential impacts of the proposed development on bats associated with the proposed site, as defined by the information set out in this report.

The specific objectives of this study are:

- To provide information on the existing evidence in the buildings with regards to bats;
- To undertake additional survey work to confirm the location of bat roosts on the roof of the building;
- To identify potential constraints and opportunities that bats may pose to the development proposals; and
- To outline appropriate mitigation and enhancement proposals.

1.4 PERSONNEL

This report was produced by Tessa Pepler BSc (Hons), MSc, MCIEEM, who has worked as an ecological consultant since 2005 and has a BSc (Hons) in Environmental Studies and an MSc in Ecology and Management of the Natural Environment. Tessa is a full member of the Chartered Institute of Ecological Management (MCIEEM) and holds a Natural England Class 1 survey licence for great crested newts (2015-18828-CLS-CLS), dormice (2015-11191-CLS-CLS) and bats (2016-25380-CLS). Tessa Pepler was the lead surveyor for the emergence survey conducted on 7 May 2020 and on the re-entry survey conducted on 23 June 2020.

Lis Weidt BSc (Hons), MSc, MCIEEM was the lead surveyor for the emergence survey conducted on 4 June 2020. Lis has worked as an ecological consultant since 2014 and has a BSc (Hons) in Zoological Conservation. Lis is a full member of the Chartered Institute of Ecological Management (MCIEEM) and holds a Natural England Class 1 survey licence for great crested newts (2018-33047-CLS-CLS), Class 2 dormice (2016-20327-CLS-CLS) and Class 4 bats (2019-39935-CLS-CLS).

1.5 LEGISLATION AND PLANNING POLICY

1.5.1 Legislation

The UK is bound by the terms of the European Habitats Directives (The Council of the European Communities, 1992). The Conservation of Habitats and Species Regulations 2017 (as amended) (UK Government, 2017) transposes these Directives and provides protection for species listed under this legislation (European Protected Species), which includes bats. The legislation concerning bat species in England is set out within the provisions of the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended) (UK Government, 1981).

Legal offences associated with bats in England and Wales include inter alia:

- Deliberate capture, injury or killing;
- Deliberately disturb bats in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young;
- Intentional or reckless disturbance of a bat in its roost;
- Damaging or destroying a bat roosting place (even if bats are not occupying the roost at the time);
- Intentionally or recklessly obstructing access to a bat roost; and
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.

The following species of bat: barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, Noctule *Nyctalus noctule*, brown long-eared *Plecotus auratus* and soprano pipistrelle *Pipistrellus pygmaeus* are also included within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (UK Government, 2006) which lists flora, fauna and habitats considered by the Secretary of State to be of principal importance for conserving biodiversity.

The publication of the "England Biodiversity List" satisfies the requirements of Section 41 of the NERC Act 2006 for the conservation of biodiversity. Section 40 of the NERC act 2006 requires public bodies, including local planning authorities, to have regard for the conservation of biodiversity in England, when carrying out their normal functions.

1.6 PLANNING POLICY AND GUIDANCE

1.6.2 National Planning Policy

Section 15 of the National Planning Policy Framework (NPPF) (UK Government, 2019) requires impacts to biodiversity to be minimised and all developments should include a net gain in biodiversity. In particular, paragraph 175 states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity; and states that where significant harm resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. NPPF also emphasises the requirement for ecological networks to be created throughout the wider landscape. This can be achieved by sympathetic landscape and structure design. Our recommendations on the most effective measures to employ to achieve this are outlined in section 5.

1.6.3 Local Policy - Reading Borough Local Plan

The Reading Borough Local Plan Adopted November 2019 contains several policies which are relevant to ecology and the proposed development of the site.

EN12: Biodiversity and the Green Network – The Green Network shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. New development shall demonstrate how the location and type of greenspace, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. A new development should maximise opportunities to create new assets and links to areas where opportunities are as yet unidentified on the Proposals Map. On all sites, development should not result in a net loss of biodiversity and should provide a net gain for biodiversity wherever possible.

EN14: Trees, Hedges and Woodland – Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal where they are of importance, and Reading's vegetation cover will be extended. New development shall make provision for tree retention and planting within an application site, particularly on street frontage, or off-site in appropriate situations, to improve the level of tree coverage within the Borough, to maintain and enhance the character and appearance of the area in which a site is located, to provide for biodiversity and to contribute to measures to reduce carbon and adapt to climate change. Measures must be in place to ensure that these trees are adequately maintained.

1.7 SITE DESCRIPTION AND LOCATION

The planning application area, which hereafter is referred to as the 'Site', comprised one residential property and associated garden, located at 8 Riley Road, Tilehurst, Reading. The central Ordnance Survey (OS) grid reference is SU 6781 7364. The Site is surrounded to the north, west and south by residential properties and gardens. Lousehill Copse Local Wildlife Site (LWS) which is part of West Reading Woodlands Local Nature Reserve (LNR) is located adjacent to the eastern boundary.

Within the wider landscape Calcot Park Golf Course is located to the south of the site, the town of Reading is located to the east of the site. The centre of the suburb of Tilehurst is located to the west of the site.

Figure 1: Site Location within the Wider Landscape



2 METHODOLOGY

2.1 DESK STUDY

The desk study collates all relevant existing information relating to the Site and its surrounding area. The data is used to assist with developing the scope and design of the further surveys and to enable a full assessment of the likely impacts of the proposed activities on species of conservation interest. The following sources have been used as appropriate:

- Multi Agency Geographic Information for the Countryside (MAGIC);
- Records and citations for designated sites (www.gov.uk, www.designatedsites.naturalengland.org.uk); and
- Google Maps (www.maps.google.com).

A search for International and European statutory designated sites was conducted to an 8 km radius from the Site and a search for national statutory designated sites and granted Natural England bat licences was conducted to 2 km radius of the Site.

2.2 DATA SEARCH

Thames Valley Environmental Records Centre (TVERC) provided details of bat species records and non-statutory designated sites recorded within a 2 km radius of the site on 19 February 2020.

2.3 ECOLOGICAL CONTEXT ASSESSMENT

An assessment of the ecological context of the Site was undertaken with notes made, in respect to the suitability of the habitats within the site as influenced by the setting of surrounding habitats, to support bat species. The ecological context of a site can significantly influence the likelihood of it supporting certain bat species. For example, a site which has low habitat suitability is more likely to be used if it is located adjacent to an area of high suitability.

The ecological context of the development site was therefore assessed for the following characteristics:

- Proximity and connectivity to suitable foraging habitats;
- Proximity and connectivity to known or potential breeding sites or resting places; and
- Overall quantity and quality of available habitat in the surrounding landscape, including relative connectivity/fragmentation.

2.4 BAT ROOST INSPECTION (BRI) SURVEY

A full BRI was conducted on 12 February 2020 and the J00521 Preliminary Ecological Appraisal & Bat Roost Inspection, Johns Associates Ltd on behalf of Mr Daniel Stannard, 25 March 2020 can be referred to for the full results of this inspection.

An additional internal inspection of the buildings was carried out on the 7 May 2020 by Tessa Pepler (class licence registration number: 2019-40584-CLS-CLS-1 replacing 2016-25380-CLS-CLS). The inspection followed the professional survey guidance as detailed in Bat Survey Guidelines for Professional Ecologists: Good Practice Guidelines (Bat Conservation Trust, 2016).

The inspection entailed a direct search for evidence of bats on internal features within the roof void of the building. Other supporting equipment included close focusing binoculars and a high-powered torch, as required. The presence of roosting bats can be spotted through signs such as accumulations of moth or butterfly wings or bat droppings and

staining and/or scratch marks around potential entrance and exit points. However, the absence of droppings/evidence cannot be treated as conclusive evidence that bats are not present.

2.5 EMERGENCE AND RE-ENTRY SURVEYS

Two dusk emergence surveys were conducted on 7 May and 4 June 2020 by two surveyors. One dawn re-entry survey was conducted on 23 June 2020 by two surveyors. The dusk emergence surveys commenced 15 minutes before sunset and continued for 1.5 hours after sunset and the dawn re-entry survey commenced 1.5 hours before sunrise and concluded 15 mins after sunrise. The surveys followed professional survey guidance as detailed in Bat Survey Guidelines for Professional Ecologists: Good Practice Guidelines (Bat Conservation Trust, 2016).

The surveyors used Elekon BatLogger M bat detectors to aid in the observation and identification of bats. The surveyors were suitably positioned to have an unrestricted view of all areas of the residential building and garage.

All bat activity observed during the survey period was recorded with particular attention being given to any emerging or re-entering bats and the point of entry or exit from the building. Bat detector recordings were analysed following the survey in order to confirm the identification of the bats observed during the surveys.

The bat calls were analysed using BatExplorer. All calls were analysed using established methods and call parameters as detailed in (Barataud, 2016)((Middleton, Froud, & French, 2014) and (Russ J. , 2012).

2.6 LIMITATIONS, CONSTRAINTS AND ASSUMPTIONS

The findings of this report are valid at the time of the final survey (23 June 2020). This report can be submitted to support a planning application for one year from the date of final survey (23 June 2021). Should there be delays to the project timetable and/or implementation of the proposed development, updated desk study and/or survey work may be required. In this instance, advice should be sought to ensure the data, recommendations and conclusions set out in this report remain valid.

It has been assumed that the development proposals are as described in this document and that all proposed mitigation, enhancement and management measures will be implemented in full.

No limitations or constraints with regard to the field survey or desk study were encountered.

3 SURVEY RESULTS

3.1 DESK STUDY

3.1.1 Statutory Designated Sites

There were no European statutory sites designated for supporting bats within 8 km within the proposed site and no national statutory sites designated for supporting bats within 2 km of the proposed site.

3.1.2 European Protected Species (EPS) Licences for Bats

There are four EPS licences for bats within 2 km of the proposed site. The first starts on 21-01-2016 ending on 31-01-2021 for brown long-eared, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle bats and is located approximately 1.5 km to the north west. The licence allows destruction of a resting place. The second starts on 04-10-2010 ending on 31-08-2012 for common pipistrelle and brown long-eared bats and is located approximately 810 m to the south west. The licence allows destruction of a breeding sites and a resting place. The third starts on 07-09-2011 and ends on 01-09-2013 for common pipistrelle and allows the destruction of a resting place (located approximately 55 m to the west).

3.1.3 Bat Species Records

There were numerous records for 'bats' (species unidentified) within the data search. Serotine *Eptesicus serotinus*, Myotis species, Daubenton's *Myotis daubentonii*, noctule, pipistrelle species, common pipistrelle, long-eared bat species and brown long-eared bat records were provided. Of these records the following species were recorded as having bat roosts: common pipistrelle and soprano pipistrelle.

3.2 ECOLOGICAL CONTEXT ASSESSMENT

Lousehill Copse adjacent to the eastern boundary of the site comprises mature tree habitat and offers suitable habitat for roosting, foraging and commuting bats.

As a result, the ecological context associated with the Site is assessed as being of moderate suitability for bats, based on the following:

- Good quality semi-natural habitats in the immediate vicinity;
- Potential roosting sites available in the immediate vicinity; and
- Connectivity to suitable foraging habitats within the wider landscape.

3.3 ACTIVITY SURVEYS

3.3.4 Emergence - Survey 1

The first emergence survey was conducted on 7 May 2020 with Tessa Pepler as the lead surveyor. Two surveyors were positioned where full and unrestricted view of potential roost features within of the buildings.

The survey commenced at 20:23, sunset was at 20:38 and the survey was completed at 22:08. The weather conditions recorded a start temperature of 17 °C, a cloud cover of 2/8 Okta and a Beaufort wind scale of 1.

The first bat, a common pipistrelle was recorded at 20:59 and flew east to west from the south of the building. A second common pipistrelle flew from west to east over the centre of the building at 21:01. Two soprano pipistrelle bat calls were

recorded at 21:16. Three common pipistrelle bat passes were recorded through the survey and one was recorded foraging around the western face of the building at 21:19 for a few minutes. One soprano pipistrelle pass was recorded at 21:22. A noctule bat call was recorded at 22:08.

No bats were observed emerging or re-entering the buildings during the survey.

3.3.5 Emergence - Survey 2

The second emergence survey was conducted on the 4 June 2020 with Lis Weidt as lead surveyor.

The survey commenced at 21:00, sunset was at 21:15 and the survey was completed at 22:45. The weather conditions recorded an average temperature of 13 °C, a cloud cover of 8/8 Okta and a Beaufort wind scale of 1/2.

One noctule bat was recorded commuting high up from the north to the south over the site. One common pipistrelle bat call was recorded at 22:09. No other bat activity was recorded.

No bats were observed emerging or re-entering the building during the survey.

3.3.6 Re-entry - Survey 3

The third re-entry survey was conducted on the 23 June 2020 with Tessa Pepler as lead surveyor.

The survey commenced at 03:17, sunrise was at 04:47 and the survey was completed at 05:02. The weather conditions recorded an average temperature of 13 °C, a cloud cover of 0/8 Okta and a Beaufort wind scale of 0.

One bat pass was seen and not heard at 03:16; the bat call was too faint to be picked up by the detector. A pipistrelle bat pass was recorded at 03:16 and faintly again at 03:36. A noctule was recorded commuting at 04:04 and one commuting common pipistrelle bat was recorded flying from the east of the house to the west.

No bats were observed emerging or re-entering the building during the survey.

4 ASSESSMENT, MITIGATION & ENHANCEMENT

An evaluation of the findings of the bat surveys are presented within the following section. Avoidance, mitigation, compensation and enhancement measures are also provided.

4.1 SUMMARY OF SURVEY RESULTS

No bats were observed emerging or re-entering the PRFs identified on the building. There is a confirmed roost present based on the evidence recorded inside the roof void: a likely brown long-eared bat occasional day roost for up to 5 bats within the roof void of the main building. The site is of negligible to low value for foraging and commuting bats, however the woodland edge habitat located adjacent to the eastern boundary of the site provides moderate value foraging and commuting habitat.

Lousehill Copse LWS which is part of the West Reading Woodlands LNR is located adjacent to the eastern boundary of the proposed site. The deciduous woodland and wet woodland habitat provide moderate quality foraging and commuting habitat for bats.

4.2 ASSESSMENT OF IMPACT OF PROPOSED DEVELOPEMENT

The demolition of the building will have a negative impact on the roost used by brown long-eared bat(s), a European Protected Species. The conservation status of these roosts is considered to be low. It is not considered that the 8 Riley Road roof structure is suitable to support hibernating bats.

Should bats be roosting within the woodland to the east of the proposed site or within the bat box installed on a tree within the woodland; the avoidance of external lighting within the proposed residential development will avoid any negative effects from light disturbance upon potential roosting bats and therefore it is considered that the development will not significantly affect roosting, commuting and foraging bats.

The impact of the proposed development is therefore considered to be low at local level.

4.3 MITIGATION

4.3.1 Bat Mitigation Class Licence CL21

A Bat Mitigation Class Licence CL21 will be registered with Natural England once planning permission has been granted and prior to the commencement of any works to the existing building. Licences can be registered 3 to 12 weeks prior to the commencement of the construction works, however to avoid delay it is recommended that the licence is registered approximately 6-7 weeks prior to construction commencing. The licence will typically last for 2 months and Natural England do not expect that licences last more than 6 months. The licence permits the disturbance and capture of bats and/or damage/destruction of no more than three low conservation significance roosts affecting no more than three or the more common species of bats present in small numbers.

- "Low conservation significance roosts" are defined as feeding roosts, day, night and transitional/occasional roosts.
- "Common species" are defined as common pipistrelle, soprano pipistrelle, brown long-eared, whiskered, Brandt's, Daubenton's and Natterer's bats.
- "Low numbers" are not specifically outlined but standing advice from Natural England suggests that low numbers should not collectively exceed nine bats unless fully justifiable in a local context.

The currently identified roost location will be subject to destruction therefore a Bat Low Impact Mitigation Class Licence CL21 will be sufficient to permit the destruction of a resting place and disturbance of bats roosting within the building during the development works. This licence will also allow works to proceed should bats be unexpectedly encountered during works.

The suitably qualified named ecologist will supervise a soft demolition of the roof strip. If a bat is found unexpectedly in adverse weather conditions, it will be transferred to an environment with stable cool temperature and high humidity such as a hibernation box.

The roof structure needs to be inspected by the registered ecologist within 3 months prior to the submission of the site registration form.

Should a hibernation roost be found unexpectedly in adverse weather conditions, the low impact class licence cannot be relied on and an individual mitigation licence would be required to capture and take the bats(s) and damage or destroy the roost at the appropriate time of year which will result in delays to the demolition.

To compensate for the loss of the bat roost within the roof structure, a compensation bat roost will be integrated within the roof void of the residential building located in Plot 4. One Schwegler 1 FE bat access tube will be installed at the apex of the east face of the building and two bat access tiles will be installed on each face of the roof of the property; one on the south face and one on the north face at the centre and avoiding the inner roof trusses for clear access into the roof. The tiles consist of a standard sized tile, with a capped vent which allows access to roof felt for small-size crevice dwelling bat species.

Drawing Numbers 161.01A and 161.01B associated with the planning submission provide the locations of the compensation roost and access points.

4.4 ECOLOGICAL ENHANCEMENT

It is current government policy and legislation and local policy to enhance areas ecologically. The following section therefore provides measures to achieve this at an appropriate scale for this development. The habitats within the site are of site (low) ecological value and the proposed development will include the following enhancement measures:

- Native hedgerow planted around the perimeter of the proposed site;
- Native shrubs and trees planted within each garden of the proposed development with night scented species including evening primrose *Oenothera biennis*, honeysuckle *Lonicera periclymenum*, night-scented catchfly *Silene noctiflora*, night-scented stock *Matthiola bicornis*, Nottingham catchfly *Silene nutans*, soapwort *Saponaria officinalis*, sweet rocket *Hesperis matronalis*, tobacco plant *Nicotiana glauca* and white jasmine *Jasminum officinale*. Native species are preferable and more information is provided in Encouraging bats, Bat Conservation Trust, August 2015.
- Installation of three Schwegler 2 FR bat tubes, two located at the apex of the southern face of Garage 2 and one on the east face of the residential building in Plot 2 just south of the roof on the gable wall. Drawing Numbers 161.01A and 161.01B associated with the planning submission provide the locations of the bat tubes. The south elevations of the properties have higher light spill from windows and as a result bat tubes will be located within the east elevation of the building, which additionally faces the woodland habitat within Lousehill Copse.

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APPENDIX 1 BAT COMPENSATION & ENHANCEMENT

Plate 1 – Habibat Access Slate Tile



Plate 2 – Schwegler 2FR Bat Tube

