TULLS
TULLS LANE
STANDFORD

BAT SURVEY REPORT

ACD ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture

Written By:	S. Pryke
Checked By:	N. Jones
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QUALITY ASSURANCE

1.1. This report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing (2nd Edition, December 2017).

1.2. The facts stated in this report are true to the best of our knowledge and belief, and any opinions expressed are held genuinely and in accordance with the accepted standards of the profession. ACD Environmental Ltd is a CIEEM Registered Practice.

Client:	Mr Mark Colgate
Site/job:	Tulls, Tulls Lane, Sandford
Author:	Siobhan Pryke
Technical review:	Nicholas Jones

CONTENTS

1 EXECUTIVE SUMMARY

Purpose of report	To assess the potential ecological impacts of a proposed extension at Tulls, Tulls Lane, Standford, Bordon, Hampshire GU35 8RB hereafter referred to as 'the Application Site', with focus on the potential use of buildings by bats.
Description of proposed development	Planning consent is being sought for a single upper storey extension on the northern elevation with East Hampshire District Council.
Brief description of the Site	The Application Site comprises a residential house and a barn in a rural village setting. The house is brick built with a clay tiled roof. The residential house is a two-storey property whilst the barn is a single storey stone and wood cladding building with clay tiles.
Designated nature conservation sites	The Application Site falls within the Impact Risk Zone (IRZ) of one Site of Scientific Interest (SSSI), Woolmer Forest SSSI. The Application Site is an extension on an existing residential dwelling and therefore will not cause any impacts on the SSSI and as it is a householder application is exempt from Natural England consultation.
Key species	The Application Site was assessed as having low potential for roosting bats and as such an emergence survey was carried out. No bats were seen to emerge during the emergence survey. The residential house has potential for nesting birds.
Key impacts & mitigation/ compensation measures	The proposed extension will involve the reroofing of the northern elevation and the potential construction of the residential house. There may be potential to disturb nesting birds that may be present. A bat tile is to be installed within the new roof tiles to compensate for the loss of roosting features.
Conclusions	The mitigation and recommendations in this report will avoid impact to nesting birds. No long-term or residual impacts are anticipated.

2 INTRODUCTION

2.1. This report provides an assessment of the ecological effects of proposed extension works at Tulls, Tulls Lane, Standford, Bordon, Hampshire.

Background

2.2. The Application Site is located on the north of Tulls Lane. The surrounding area is dominated by agricultural fields with sparse residential properties. The Application Site comprises two buildings. A two-storey, detached building of brick construction with a pitched roof. This is currently used as a residential dwelling. The roof is clad with concrete tiles. The second building is a single storey detached building of stone and wooden cladding construction with a pitched roof. The roof is of concrete tiles. The second building is used as a barn. Hardstanding is present surrounding the buildings with an area of grassland to the north.

2.3. A planning application will soon be submitted with East Hampshire District Council, which this report will accompany for a single-storey extension of the residential property on the northern elevation.

Competence

2.1. This report has been written by Siobhan Pryke, ACD Environmental Ltd. Siobhan is an Ecologist and has over two years' experience working for commercial consultants. Siobhan has been involved in a wide range of surveys including Extended Phase 1 Habitat Surveys and protected species surveys: and reports including Preliminary Ecological Appraisals (PEAs) and Ecological Impact Assessments (EcIAs). Siobhan holds a Level 1 bat (all species) and a great crested newt *Triturus cristatus* licence. Siobhan is a Qualifying member of CIEEM.

2.2. A Technical Review of this report has been undertaken in line with ACD Environmental Ltd's Quality Assurance procedures. The Technical Review was undertaken by Nicholas Jones, Associate Director at ACD Environmental Ltd. Nicholas has over 14 years' experience working for commercial consultancy and specialises in European Protected Species (EPS) legislation and mitigation, holding Natural England Class Licences for barn owl *Tyto alba*, bats and great crested newt and is one of a small number of ecologists who is a Registered Consultant under the 'low impact' Bat Mitigation Class Licence. He has significant experience of EcIA and has represented ecology at a Hearing. Nicholas is a Full Member of CIEEM.

Purpose of the report

2.3. The purpose of this Bat Survey Report is as follows:

- To identify and describe all potentially significant ecological effects associated with the proposed development.
- To set out the mitigation measures required to ensure compliance with nature conservation legislation and relevant planning policy, and to address any potentially significant ecological effects.
- To identify how mitigation measures will/could be secured.
- To identify any significant residual ecological effects and set out any compensation measures proposed to address these.

3 PLANNING POLICY AND LEGISLATION

Legislation

3.1. The following pieces of legislation are of specific relevance to this assessment:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019[1]. This piece of legislation is of relevance because the Application Site has the potential to support bat species.

- Wildlife and Countryside Act 1981[2] (as amended, including by the Countryside and Rights of Way Act 2000). This piece of legislation is relevant because the Application Site is within the ZOI of Woolmer Forest SSSI, which is protected in England under this Act.

Planning policy

National Planning Policy Framework 2021[3]

3.2. Paragraph 180 of the NPPF states that when determining planning applications, local planning authorities should apply the following principles:

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

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

- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are

[1] Great Britain. *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* No.579 [online]. Available from: https://www.legislation.gov.uk/ukdsi/2019/9780111179512/contents
[2] Great Britain. *Wildlife and Countryside Act 1981* [online]. Available from: http://www.legislation.gov.uk/ukpga/1981/69/contents
[3] Great Britain. *National Planning Policy Framework (2021)*. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2

wholly exceptional reasons and a suitable compensation strategy exists.

- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

4 METHODOLOGY

Zone of influence

4.1. The zone of influence (ZOI) is the area over which important ecological features (on-site or off-site) may be affected as a result of the proposed development and associated activities. The ZOI can vary for different ecological features, depending on their sensitivity to environmental change.

4.2. The ZOI for statutory designated sites has been informed by Natural England's Sites of Special Scientific Interest Impact Risk Zones[4] (SSSI IRZs). IRZs define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal that could potentially have adverse impacts.

4.3. Woolmer Forest SSSI is located 0.8km of the Application Site at its nearest point. Consultation with Natural England is not required due to the development being a householder application. Given the small scale of the development and spatial separation from the SSSI no impacts are anticipated as a result of the development.

Desk Study

4.4. The MAGIC website[5] was used to carry out a 5km data search for SSSIs, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) with an IRZ that falls within the Application Site, in August 2022. The MAGIC website was also used to search for European Protected Species Licences (EPSLs) for bats granted within 2km radius of the Application Site, in August 2022.

Field surveys

4.5. A summary of ecological field surveys is provided in **Table 1**. Descriptions of full survey methods are provided in **Appendix 3**.

[4] Natural England (June 2019). Natural England's Impact Risk Zones for Sites of Special Scientific Interest (For use by Local Planning Authorities to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites and determine when to consult Natural England).
[5] *Multi Agency Geographic Information for the Countryside* [online]. Available at: https://magic.defra.gov.uk/

Table 1: Field surveys

Survey	Surveyor/s	Survey date/s	Study Area	Relevant guidelines
Preliminary Roost Assessment	Siobhan Pryke	1st August 2022	Single loft space in main house where extension will impact	Collins (2016)[6]
Emergence surveys	Victoria Mercier Hannah Yetman	22nd August 2022	Northern elevation of residential house	Collins (2016)

Limitations

4.6. The loft space which will be impacted is a partitioned loft and only half of the loft could be inspected internally. This limitation has been addressed through the emergence survey carried out.

4.7. There was light drizzle at the beginning of the survey, however there was lots of bat activity recorded and the rain was very light and did not last the entire survey, so this is not considered a limitation.

Assessment methodology

4.8. The habitats and species evaluations and likely effects are made with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment[7].

4.9. The importance of ecological features has been assessed by carrying out a suite of specialist surveys (**Table 1**) to determine whether protected species/habitats, and/or species/habitats of conservation concern are present in the Application Site or its ZOI, then comparing their status at the international/national/county/regional/local scale, through the use of available contextual

[6] Collins J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
[7] CIEEM (2019). *Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Coastal, Version 1.1. updated September 2019*. Chartered Institute of Ecology and Environmental Management, Winchester.

information, to establish the importance of those features in a geographical context.

4.10. The overall effect of the proposed development on a given feature has been predicted, considering the baseline data collected through desk study and field survey, and the various impacts expected to occur. An assessment has then been made as to whether the effect on each important ecological feature is likely to be significant or not.

4.11. Significance is the weight that should be attached to effects when decisions are made. For the purpose of the Bat Survey Report, a likely significant effect is an effect that either supports or undermines biodiversity conservation objectives for important ecological features (which could be species populations/groups of species, habitats, or a designated site), or for biodiversity in general. Effects have been considered significant at a wide range of scales, from national to local.

4.12. A sequential process has been adopted to avoid/mitigate, and if required, compensate for significant negative ecological effects. This is referred to as the 'Mitigation Hierarchy'. Mitigation includes measures to avoid or reduce the negative impacts of the proposed development. Compensation addresses significant negative residual effects (those likely to occur after avoidance and mitigation have been considered). It is this objective of compensation, and not its location, that distinguishes compensation from 'mitigation'.

4.13. In a Bat Survey Report, it is only essential to assess and report significant residual effects that remain after mitigation measures have been taken into account. However, the potential significant effects without mitigation as well as the residual significant effects following mitigation have been presented where the mitigation proposed is experimental, unproven or controversial and/or to demonstrate the importance of securing the measures proposed through planning conditions or obligations.

Valuation

4.14. The value of important ecological features (sites, habitats and species) is assigned according to their scale of importance using the following terms:

- International importance - ecological features of international importance such as SPAs and SACs, and/or sites that support internationally-important populations of species.

- National importance - ecological features of national importance such as SSSIs, features which meet the criteria for designation as a SSSI, and/or sites that support nationally-important populations of certain species.

- Regional importance - ecological features of regional importance, such as a species

population that is of importance at a scale greater than the County but does not meet the criteria for National Importance.

- County importance - ecological features of county-scale importance, including features that have been designated as local wildlife sites, or meet the criteria for designation as a local wildlife site, and/or county-important populations of species.

- Local importance - ecological features of local importance, including habitats or species populations listed as being of nature conservation importance (e.g. S41, local Biodiversity Action Plan (BAP), or listed in local planning policy) which are not considered to be of County importance by virtue of the quality, size/number, rarity, the extent to which they are threatened throughout their range, or to their rate of decline.

Precautionary principle

4.15. The evaluation of significant effects is based on the results of the ecological surveys carried out in the Application Site and other available evidence. In cases of reasonable doubt, where it is not possible to robustly justify a conclusion of no significant effect, a significant effect is assumed. Where uncertainty exists, it has been duly acknowledged.

5 BASELINE ECOLOGICAL CONDITIONS

Context

5.1. The Application Site is located on the north of Tulls Lane. The surrounding area is dominated by agricultural fields with sparse residential properties. The Application Site is located north-west of Standford village.

Designated Sites

5.2. SSSIs, SACs and SPAs with IRZs within the boundary of Application Site are shown in **Table 2**.

Table 2: Statutory designated sites with an IRZ within the Application Site

Name of statutory designated sites	Approximate distance and direction from Application Site	Reason for designation	Scale of importance
Woolmer Forest (SSSI)	0.8km south	The site contains the largest and most diverse area of lowland heathland habitats in Hampshire (outside the New Forest). Its is the only site in Britain known to support all 13 native reptile and amphibians and supports a nationally important heathland flora, with associated birds and invertebrate fauna. It is the last native heathland site in Britain for the natterjack toad *Bufo calamita*.	National

5.3. The proposal for the Application Site is limited in scale to a small extension. Given the small scale of the development in addition to spatial separation in addition to the location of the Application Site (in easy reach of rural amenities) it is considered highly unlikely that any impacts on habitats on any designated sites will occur as a result of work on the Application Site. As the Application Site is a householder application it is exempt from Natural England consultation.

Bats

5.4. There are four granted EPS licences for bats within 2km of the Application Site. The closest and most recent of the granted licences was located approximately 0.8km southwest of the Application Site and was for a brown long eared *Plecotus auratus* and common pipistrelle *Pipistrellus pipistrellus* (2019-44021-EPS-MIT). This was granted in 2020.

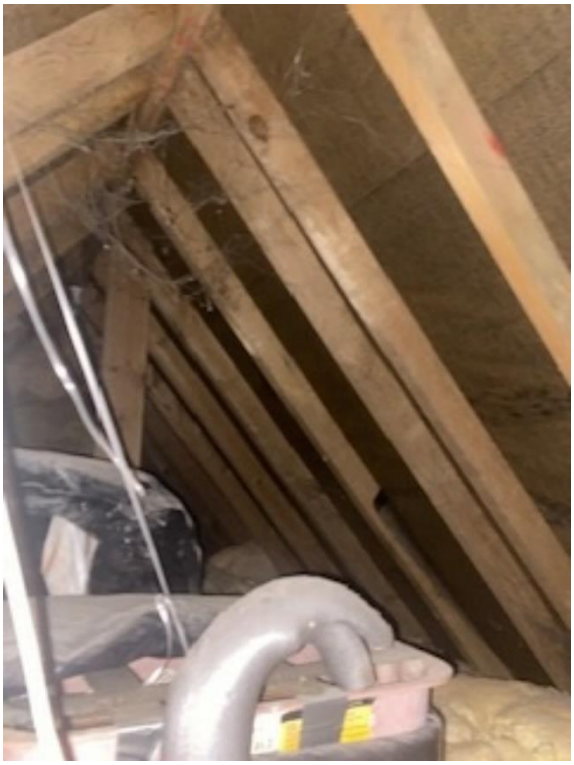
5.5. The house was assessed for its potential to support roosting bats and was systematically searched for bats and evidence of roosting or activity within the house. This was undertaken visually.

Residential House

5.6. A single loft space that will be impacted by the extension works was inspected internally. This loft space comprised of two parts, one part which was accessible via the loft hatch and the other is a partitioned part, which was not accessible, but a small area could be seen through a hole in the partition. The accessible part of the loft space was lined with bitumen felt, which appeared to be in good condition with no visible tears present. Within the loft space there were beams present that could be used by free-hanging species. Within the loft space there was insulation present. The partitioned area appeared to not have any roofing felt or insulation present and consisted of roofing tiles onto wooden batons with daylight coming through in this area. However, only a small area of the partitioned area could be seen through the hole and therefore the area could not be fully assessed for its potential for roosting bats.

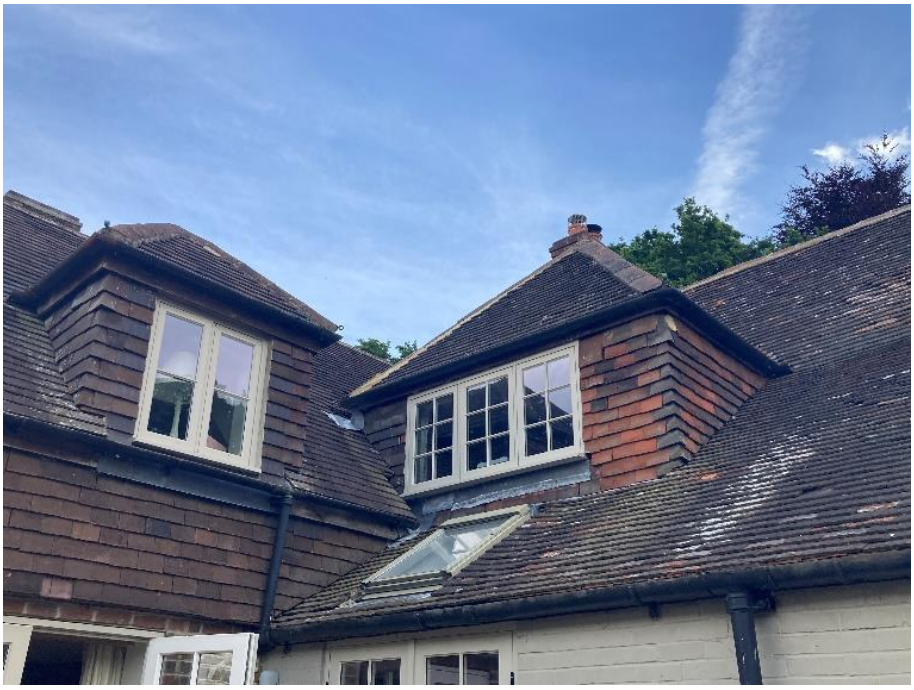
5.7. The external features in the area that will be impacted by the works are clay tiles and mortar. There were features present in the form of hanging tiles on two windows and area where there were multiple lifted tiles, these both offer opportunities for crevice dwelling species of bats.

5.8. The area that will be impacted by the single-storey extension was assessed as offering low potential due to the presence of roosting features.

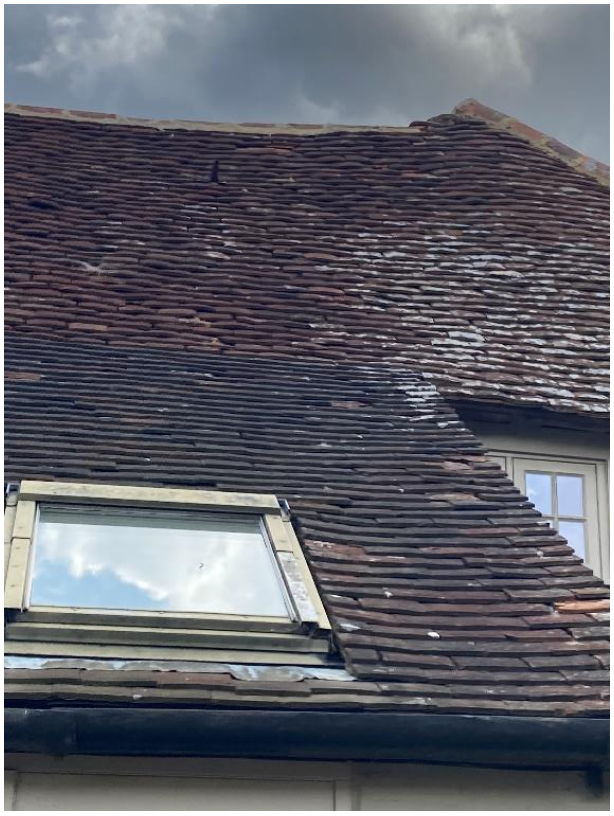


Photograph 1: Felted loft space within the accessible part of the loft space

Photograph 2: Day light visible due to no roofing felt present in partitioned part of the loft



Photograph 3: Hanging tiles present in area which will be impacted



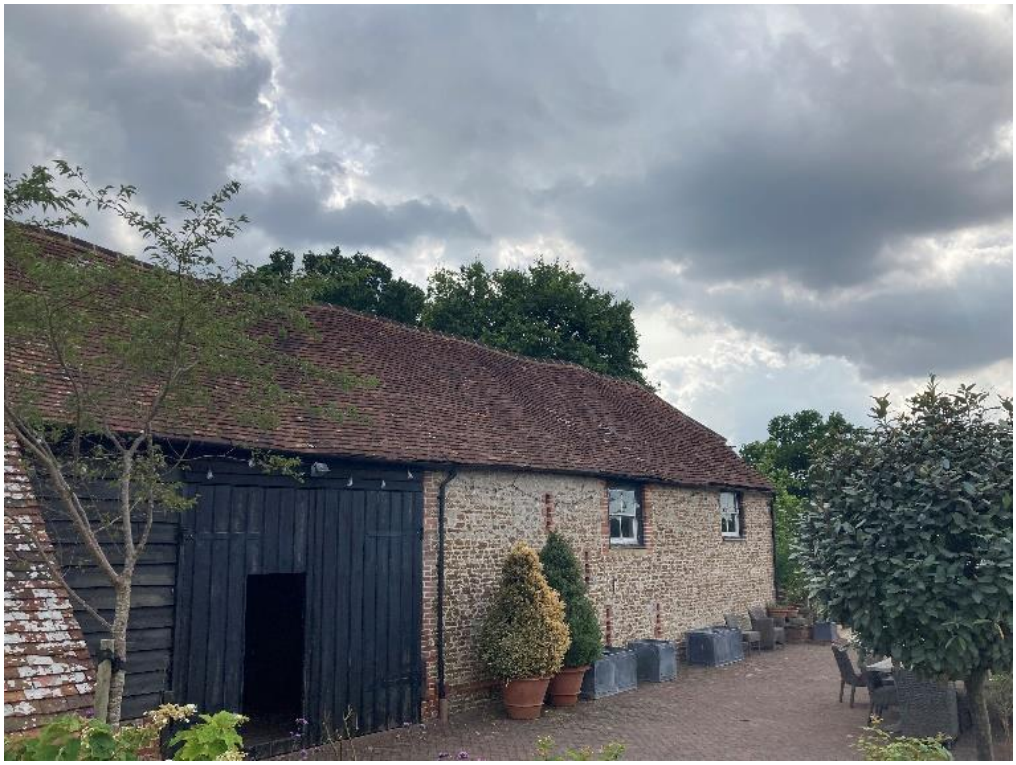
Photograph 4: Area of the inaccessible partitioned loft with lifted tiles present

Barn

5.9. To the north of the residential building is a single storey barn. The barn was assessed internally

where there is no loft present and is a single room. The barn is unlined with roofing tiles directly onto batons.

5.10. The barn was assessed externally for roosting features where few tiles were noted to be minimally lifted. However, as the work that is anticipated is to insulate the barn form the inside it is anticipated that there will be no impact on the lifted tiles and therefore further surveys are not required. If the methodology changes the requirement for further surveys will need to be reassessed.



Photograph 5: Single Storey barn with minimal gaps in the tiles

Emergence Survey

5.11. The house was subject to a single emergence survey to identify any roosts present. **Table 3** presents the weather conditions of the survey.

Table 3. Weather conditions for bat survey

Start/End	Air Temperature (°C)	Cloud Cover (%)	Precipitation	Wind (Beaufort Scale)
Start	20	100	Light drizzle at the beginning of the survey	0
End	20	40	None	0

Summary of Bat Activity

5.12. There were no emergences recorded during the survey. During the survey, bats were recorded passing the area, this includes common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus*, long-eared and noctule *Nyctalus noctula* bats. These are presumed to be brown-long eared as the building is outside of the known geographical range of grey-long eared *Plecotus austriacus* bats. Activity was frequent throughout the emergence survey with majority of the activity coming from north of the residential house.

Other Species

Birds

5.13. The residential house could support nesting birds under the lifted tiles. The lifted tiles provide habitat for small cavity dwelling species such as blue tits *Cyanistes caeruleus*.

6 ASSESSMENT OF EFFECTS AND RECOMMENDATIONS

Overview

6.1. In accordance with CIEEM guidelines, important ecological features have been identified with the potential to be affected by the proposed development and carried forward for further assessment. In this case the proposed development has the potential to impact bats and common species of nesting birds.

6.2. No further impacts on habitats or species/species groups are expected as a result of the extension.

Bats

6.3. The Application Site was assessed for its potential to support roosting bats on the 1st August 2022 with a further emergence survey on the 22nd August 2022.

6.4. During the initial PRA survey, no evidence of bats was discovered. The emergence survey resulted in no emergences, however there was bat regular activity throughout the survey.

6.5. It is recommended that roosting opportunities are provided within the extension in the form of bat tiles to replace the roosting features that will be lost due to the extension.

Other species

Birds

6.6. Works where possible should be scheduled outside the nesting bird season (March to August inclusive). Where works are anticipated between March and August inclusive, any nests in the building will be checked to determine whether or not they are active. Where an active nest is identified works in the vicinity of the nest will pause until the nest is no longer in use. An ecologist will advise on a suitable buffer zone from the nest depending upon the species present.

6.7. No further impacts on nesting birds are anticipated as a result of the redevelopment.

Amphibians and reptiles

6.8. Within the SSSI 0.8km away are 12 species of amphibian and reptiles. With the works predicted, in the form of erecting scaffold and the access area, no impacts are expected for amphibians and reptiles. However, precautions should be in place including the following:

6.9. All excavations (e.g. trenches/pits) are to be covered when works are not taking place to ensure that

they do not fill with water, which avoids encouraging amphibians during the course of the works.

6.10. If any excavations are left open, then there must be a means of escape should animals enter. This could simply be in the form of a roughened plank of wood placed in the excavation as a ramp to the surface. This is particularly important if the excavation fills with water.

6.11. Building materials (e.g. masonry and timbers) should be stored off the ground to minimise the chances of being used by animals.

7 CONCLUSIONS

7.1. The Application Site will be subject to a planning application to add a small extension on the northern elevation of the residential house.

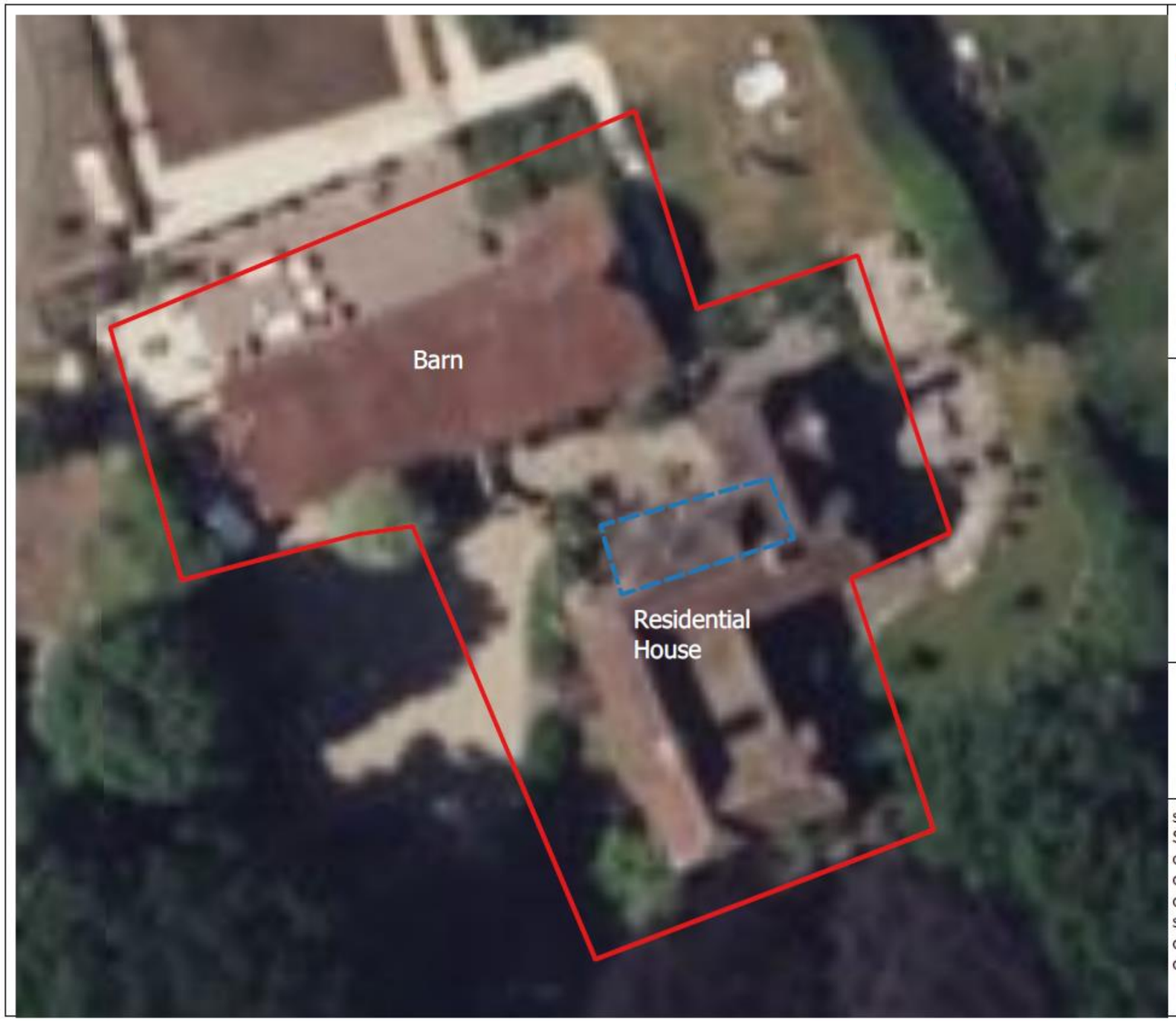
7.2. The extension will require the replacement of the roof on the northern elevation of the residential house, however no bats emerged during the emergence survey.

7.3. Nesting birds may also be impacted by development proposals in the absence of mitigation. To ensure that nesting birds are not adversely impacted, the works should take place outside of the nesting season. However, it this is not possible then nesting bird checks will be undertaken before stating works into the building each section of the building. Where nests are identified works will wait until the young have fledged and the nest is no longer in use. No residual impacts are anticipated on this species group.

7.4. Assuming the implementation of the mitigation set out in this report, the proposed development would conform to current legislation with respect to nesting birds and bats.

7.5. The proposed mitigation includes measures to ensure compliance with the legislation relating to protected species.

APPENDIX 1: SITE PLAN



Red Line
Area To Be Impacted

ACD ENVIRONMENTAL

MR MARK
COLGATE

scheme: Tulls, Tulls Lane, Standford
client: Mr Mark Colgate
drawing: Site Plan
date: August 2022
scale: NTS
drawing no.: PRI23945_67
drawn: SP

APPENDIX 2: FIELD SURVEY METHODOLOGY

Preliminary Bat Roost Assessment

7.6. A Preliminary Roost Assessment (PRA) was carried out on the 1st of August 2022[8]. This is an external and internal inspection, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.

7.7. A systematic search was made of the building and the ground, especially below potential access points where present. Such features include windows sills, windowpanes, walls, tiles, weather boarding, lead flashing, eaves, behind surfacing materials and under tiles, and other cracks and crevices that provide protection from the elements. Such features are known to be used by roosting bats.

7.8. The internal inspection included searching for the following evidence of roosting bats:

- Roosting bats within crevices or free hanging.
- Bat corpses e.g. on the floor, in uncovered water (header) tanks or other containers in roof voids.
- Bat droppings beneath roosting features.
- Feeding remains e.g. moth/butterfly *Lepidoptera* spp. wings and beetle *Coleoptera* spp. wing casings.
- Scratch marks and characteristic staining from urine and/or fur oil beneath roosting features e.g. on roofing timbers and walls within roof voids.
- 'Clean' gaps associated with bat roosts.
- Bat-fly *Nycteribiid* spp. pupal cases.
- Droppings, corpses, feeding remains and/or bat-fly pupal cases beneath roof insulation, which indicates use by bats before the insulation was installed.
- Clean swept floors, which may indicate evidence has been removed.

7.9. The external inspection included searching for the following features:

- Gaps within the structure of the roof e.g. mortise joints and junctions between roof timbers and

[8] Collins J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

between timbers and walls, and between the roof lining and roof covering.

- Gaps within the structure of walls and potential access points to cavity or rubble-filled walls.
- Gaps around the structure chimneys or within disused chimneys.
- Suitable locations for free-hanging bats and/or night/feeding perches e.g. timber beams.
- Gaps between lintels above windows or doors.
- Light gaps in the roof indicating access points to the outside.
- Cool areas suitable for torpor or hibernation e.g. cellars.

7.10. The following equipment was used for the bat assessment:

- Powerful torch to illuminate dark corners from the ground.
- Ladder.
- Collection pots and labels for corpses and droppings.
- Personal protective equipment (e.g. boots, gloves, helmet, mobile telephone).

Limitations

7.11. Part of the loft space was partitioned off and could not be accessed.

7.12. The following equipment was used for the emergence bat survey:

- Detectors (Ananbat Scouts and EMTs).
- Head torch.
- Chair.
- Camera to record evidence and potential roosting sites.
- Personal protective equipment (e.g. boots, gloves, helmet, mobile telephone).

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