

6 Grosvenor Road, Caversham, Reading Bat Survey Report

Prepared for Joanna Champion

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1 INTRODUCTION

1.1 Purpose of Report

This bat survey report has been completed in connection with the proposed refurbishment (including rear extension and re-roofing) at 6 Grosvenor Road, Caversham, Reading, RG4 5EJ (SU 71876 75529). The location of the site is shown in *Figures 1* and 2 and the site plan is detailed in *Section 4*.

A Preliminary Roost Assessment (PRA) of the building was completed by Tristan Evans of Turnstone Ecology Ltd on 20th May 2021 and updated by Simon Parker of Turnstone Ecology on 10th June 2021.. Based on the initial PRA, further survey work in the form of bat activity surveys were recommended and were undertaken on 20th May and 10th June 2021. The results of these surveys are detailed in this report.

This report details survey and assessment methodology along with the results of on-site surveys. It also provides an assessment of potential impacts and appropriate mitigation to offset any likely impacts associated with the proposals.

Figure 1. Site Location

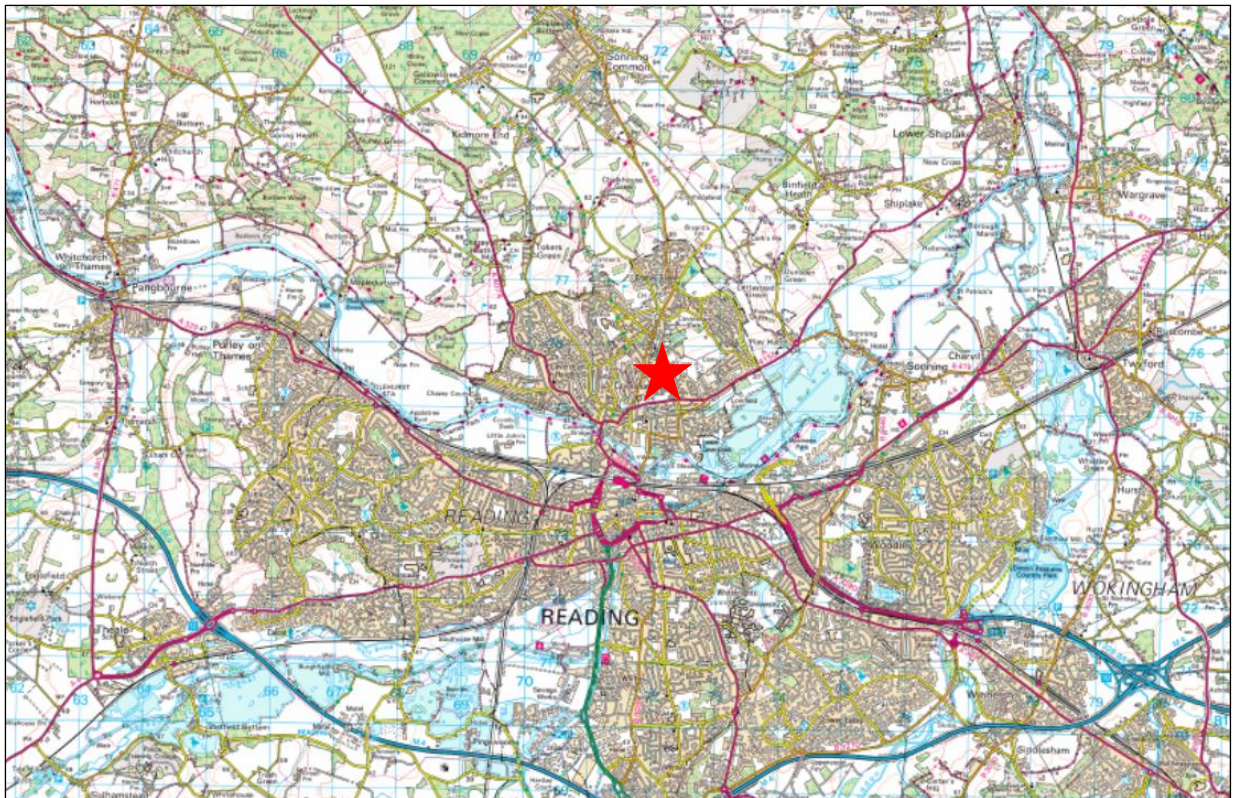


Figure 2. Location Plan (showing approximate site boundary)



1.2 Ecological Context

The proposed development site is located within Caversham, Reading. The immediate site surroundings comprise Grosvenor Road to the south, and residential properties and associated gardens to the north, east and west.

Further residential development associated with the wider area of Caversham is located on all sides of the site, beyond which lies agricultural fields and open countryside to the north, east and west. To the south lies the River Thames, beyond which lies the city of Reading.

2 METHODS

2.1 Desk-based Study

Information relating to designated sites, sites where European Protected Species (EPS) Licences have been granted in the last five years and historic records of protected species within 2 km of the proposed development site have been obtained from Magic (www.magic.gov.uk) and other freely available information, such as planning portals.

Any species-specific historic records are detailed within the relevant species accounts in the Results Section.

2.2 Preliminary Roost Assessment (PRA)

A Preliminary Roost Assessment was carried out on 20th May 2021 by Tristan Evans of Turnstone Ecology, during which the internal void was inaccessible. An update PRA, including an inspection of the internal void, was carried out on 10th June 2021 by Simon Parker of Turnstone Ecology. Tristan and Simon both hold a Natural England Class Licence (2016-22374-CLS-CLS and 2015-14470-CLS-CLS) for the disturbance of bats in all counties of England. The building was assessed for its suitability for use by roosting bats, with particular emphasis placed on the areas in and around those being directly impacted by the proposals. The assessment involves a consideration of various factors including;

- Light levels;
- Temperature regime and protection from weather;
- Access to the interior or to other suitable roost sites;
- Potential roost sites;
- Building construction; and
- Habitat context.

Based on these factors, an assessment was made as to whether the building might support bats and the type and number of roosts that might be present.

A detailed inspection was made of the exterior and interior of the building for any evidence of bat use, such as live or dead bats, droppings, scratch marks, staining and prey remains, and in some cases the absence of cobwebs. Large quantities of cobwebs in roof voids or at access points tend to be suggestive of no bat use, although this evidence is not conclusive.

Features identified as possible bat access points or potential roosting locations were thoroughly searched where possible, using powerful torches and binoculars to facilitate the process.

The survey was undertaken in good light conditions and no recent sweeping or other cleaning had been undertaken, and access to most areas was possible.

Buildings are categorised according to their suitability for roosting bats as follows (Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines:

Negligible – Habitat features on site with very low suitability to be used by roosting 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 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). Or a tree of sufficient size and age to contain potential roost features but with none seen from the ground, or features seen with only very limited roosting potential.

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 and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).

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 and surrounding habitat. They could be suitable for maternity roosts or hibernation sites.

Confirmed – Roosting bats confirmed as being present, either by the discovery of live or dead bats, droppings, prey remains, scratching or fur-staining.

Habitats within and immediately adjacent to site were assessed for their suitability for use by foraging or commuting bats. Areas of particular interest vary between species, but generally include sheltered areas and those habitats with good numbers of insects, such as woodland, scrub, hedges, watercourses, ponds, lakes and more species-rich or rough grassland.

2.3 Activity Surveys

Activity surveys, also referred to as dusk emergence and dawn re-entry surveys, are the primary methods for locating roosts in trees, buildings or built structures, as bats are not always found by internal and external inspection surveys (*e.g.* if the bats roost in areas that cannot be searched and/or leave little or no visible trace). Activity surveys can also give a reasonable estimate of the number of bats present and help understand how bats are using a site for foraging and commuting.

The activity surveys were carried out by experienced ecologists from Turnstone Ecology. The surveyors used EchoMeter Touch Pro 2 and Batbox Baton detectors and recording equipment. Surveyors were positioned so that all potential exit/re-entry points could be viewed. During the survey bat activity was recorded on to survey forms including information on time, species recorded and behaviour. Continual recording was undertaken for the duration of the survey to ensure all bat activity was recorded. Audio

tracks were downloaded and assessed using the BatSound and Kaleidoscope software packages to confirm the identity of bats recorded during the surveys.

The survey at the proposed development site was based on methods outlined in the Bat Survey Guidelines (BCT 2016) and covered the appropriate timings (up to 0.25 hours before sunset until 1.5 hours after sunset and 1.5 hours pre-dawn until up to 0.25 hours after sunrise). The survey was carried out during appropriate weather conditions, as shown in *Table 1* below.

Table 1- Weather Conditions

	Survey Visit 1 20/05/2020 PM		Survey Visit 2 10/06/2021 PM	
	Start	End	Start	End
Time	20:42	22:27	21:04	22:49
Temp	13	11	20	18
Wind	3/4	2/3	2	2
Cloud	8	8	1	1
Precipitation	Light drizzle 21:45-22:00		None	
Sunset/rise	20:57		21:19	

2.4 Constraints

The activity surveys were carried out during the peak activity season. The weather during the first survey included a small period of light rain during which activity did not drop off and as such, it is considered that the survey work was undertaken at a suitable time of year and under suitable weather conditions. As such, the level of survey work for bats is considered to provide an accurate baseline to assess the potential for impacts on roosting bats under the proposals.

3 RESULTS

3.1 Desk Study

3.1.1 Statutory Designated Sites

A single statutory designated site is located within 2 km of the site:

- Clayfield Copse Local Nature Reserve (LNR) is located approximately 1.4km to the north-east of the proposed development site. The LNR is designated for its ancient woodland, which comprises a diverse ground flora assemblage and supports ancient boundary banks and ditches.

Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of development adversely affecting Sites of Special Scientific Interest (SSSIs), taking into account the type and scale of development. The proposed development within the site falls within the IRZs for a number of SSSIs however, residential development is not listed as a category for which Reading Borough Council would be required to consult with Natural England on this planning application and a project of this scale would not be of significance.

3.1.2 European Protected Species Licence Sites

A number of European Protected Species (EPS) Licences have been granted by Natural England within 2 km of the proposed development:

- EPSM2011-3175 was granted in 2011 for the damage of breeding and resting places of Common Pipistrelle (*Pipistrellus pipistrellus*) at a site located approximately 410m south of the proposed development site.
- 2014-1343-EPS-BDX was granted in 2014 for impacting breeding places of Soprano Pipistrelle (*Pipistrellus pygmaeus*) at a site located approximately 770m south-west of the proposed development site.
- 2016-27061-EPS-MIT was granted in 2016 for the destruction of resting places of Brown Long-eared bat *Plecotus auritus* and Common Pipistrelle at a site located approximately 1.1km south-west of the proposed development site.
- EPSM2013-6025 was granted in 2013 for the destruction of resting places of Brown Long-eared bat at a site located approximately 1.4km north of the proposed development site.
- EPSM2012-4078 was granted in 2013 for the damage of breeding and resting places of Brown Long-eared bat, Daubenton's bat and Natterer's bat *Myotis nattereri* at a site located approximately 1.6km north-east of the proposed development site.
- 2017-28045-EPS-MIT was granted in 2017 for impacting breeding places of Daubenton's bat (*Myotis daubentonii*) at a site located approximately 1.6km south of the proposed development site.
- EPSM2013-6155 was granted in 2013 for the destruction of resting places of Common Pipistrelle at a site located approximately 1.8km south of the proposed development site.

- 2014-2980-EPS-MIT was granted in 2014 for the destruction of resting places of Common Pipistrelle and Soprano Pipistrelle at a site located approximately 1.9km west of the proposed development site.
- 2017-32046-EPS-MIT was granted in 2017 for the destruction of resting places of Soprano Pipistrelle at a site located approximately 1.9km north-east of the proposed development site.

3.2 Preliminary Roost Assessment

3.2.1 General Site Description

The proposed development site currently comprises a residential dwelling with an associated rear garden comprising hardstanding and ornamental planting.

3.2.2 Building Description

The residential dwelling is a two-storey detached building, estimated to be roughly 70 years of age (*Plate 1*). The building is of brick construction with a hipped roof with concrete ridge, hip and roof tiles. Bay windows are present at the front of the building which extend across both storeys, and a small gable end is present where this connects to the roof. Soffit boxes are located at the eaves of the building, and chimneys are present on the western and northern aspects of the building. A small lean-to extension, of brick construction, is also present at the rear of the house (*Plate 2*). A separate detached garage of brick construction with a flat roof is located to the rear of the residential dwelling, and both buildings are connected by a covered walkway.

Internally, the residential dwelling has a loft void of wooden beam and rafter construction and is lined with a bitumen and paper lining, which has perished in places (*Plate 3*).

External features suitable for bat roosting and access include:

- Gaps under the eaves / in the soffit boxes, in particular surrounding the chimney (*Plates 4 and 5*)
- Gaps between roofing tiles
- Gaps under ridge tiles

Internal features suitable for bat roosting and access include:

- Gaps at ridge allowing access to the internal void.

During the loft inspection undertaken in June 2021, evidence of use by roosting bats in the form of droppings was identified in the internal loft void of the residential dwelling. A small pile of droppings (approximately 5) was identified at a small opening at the ridge of the void (*Plate 6*), whilst few scattered droppings were identified throughout the void. At the time of the survey, the droppings were considered to be old. The droppings were sent to Warwick University for eDNA testing and confirmed to be from

Brown Long-eared bat. The low number of droppings present is indicative of only low levels of use by individual bats and is considered not to represent any recent roosting activity.

The residential dwelling is considered to have *Moderate* suitability for use by roosting bats and was confirmed as used by roosting bats.

Plate 1. Front (southern) aspect of the building



Plate 2. Rear (northern) aspect of building with lean-to extension and detached garage



Plate 3. Internal loft void

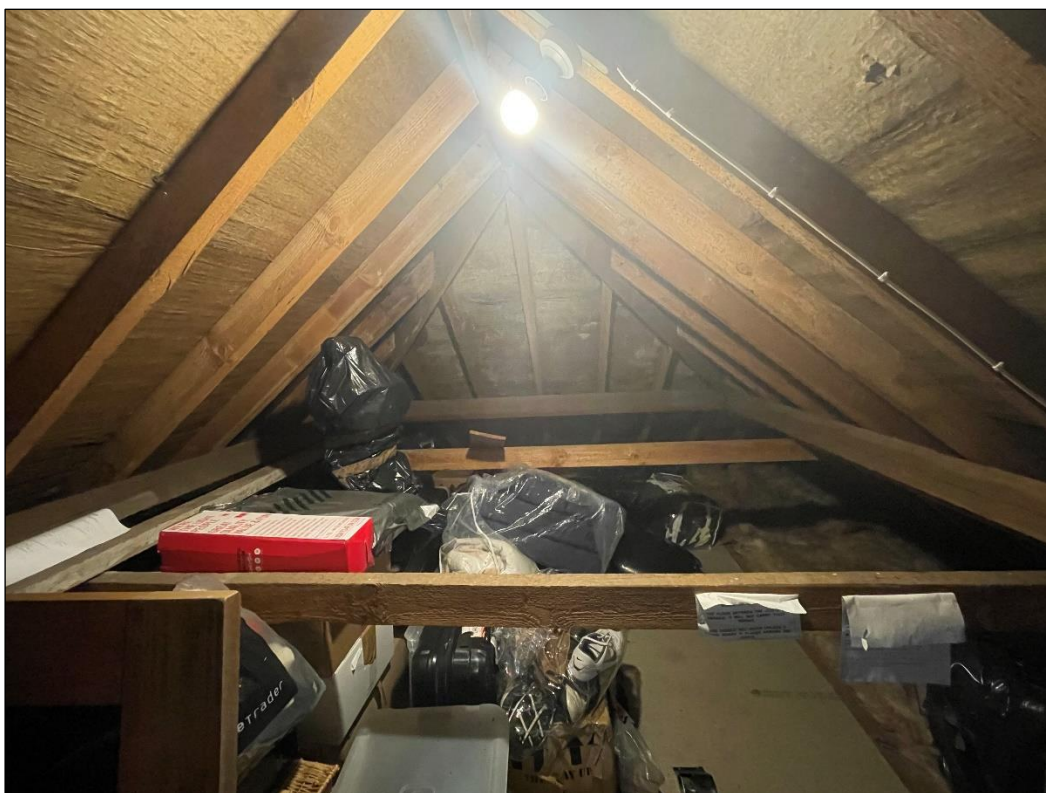


Plate 4. Gaps at soffit boxes



Plate 5. Gaps between soffit boxes and brickwork at chimney

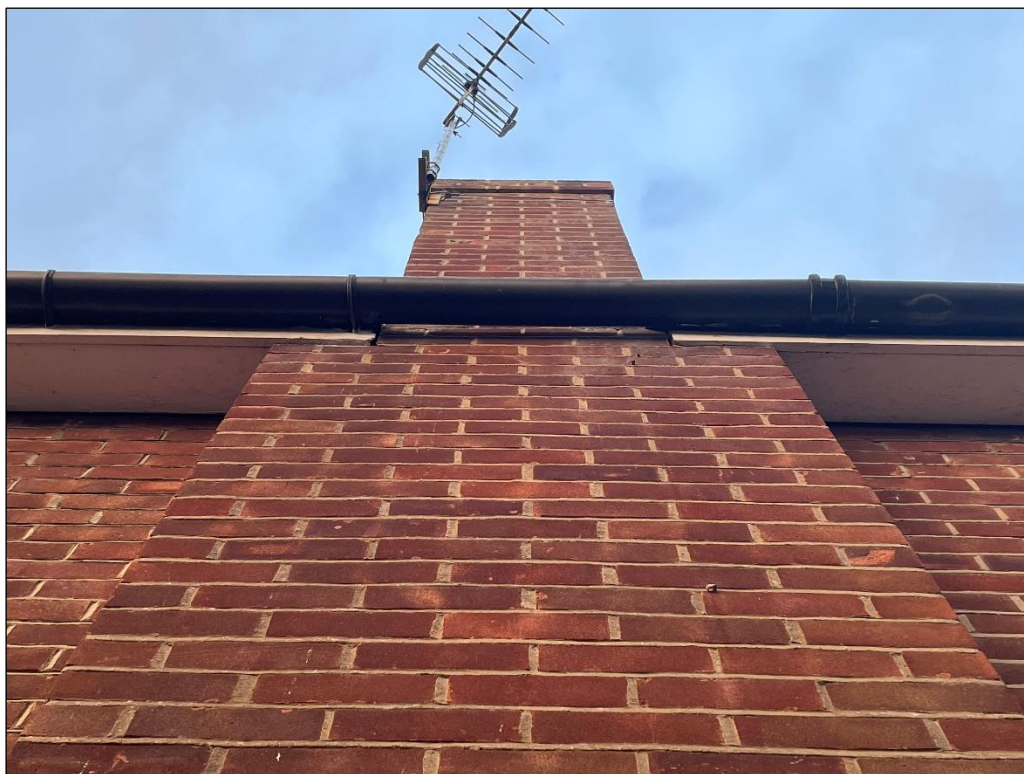


Plate 6. Small pile of droppings at ridge of internal void, likely attributable to Common Pipistrelle



3.2.3 Evidence of Other Protected Species

No evidence of other protected species was identified in the areas of the building being affected by the proposals, albeit potential for use by nesting birds is present in the building and garden areas to be impacted.

3.3 Bat Activity Surveys

Based on the levels of evidence present and potential roosting locations identified during the PRA surveys in May and June 2021, further survey work in the form of bat activity (dusk emergence / dawn re-entry) surveys was recommended at the site. Accordingly, in line with best practice guidance, the residential dwelling was subject to two separate surveys on the evenings of 20th May and 10th June 2021. It is considered that by undertaking two dusk emergence surveys, a robust assessment of the bat roosting activity in the building has been made.

No bats were recorded emerging or re-entering the residential dwelling during the surveys.

During the first survey regular activity of Soprano Pipistrelle was recorded across site with bats arriving on site from the south-west around 14 minutes after sunset. Activity of Common Pipistrelle was also

recorded in low numbers. During the second visit activity from a small number of foraging Soprano Pipistrelle was recorded following sunset and it is considered that these individuals are likely roosting at a building within proximity to the site. A single Noctule was also recorded commuting in the local area during the second visit.

4 EVALUATION

4.1 Summary of Results

4.1.1 General

The proposals include the extension of the building, including a single storey extension at the rear, and a double height extension of the existing bay at the front, extending the existing footprint. The building will also be subject to re-roofing works. The proposals will also involve the removal of an area of amenity lawn at the rear of the building, in addition to small areas of ornamental planting.

It is anticipated that the confirmed historic Brown Long-eared bat roost will be subject to damage / destruction as part of the works, and as such, a European Protected Species Licence (EPSL) or registration of the site under the Bat Mitigation Class Licence (BMCL) is required to allow works to progress lawfully (with this site certainly appropriate for BMCL given the extremely low levels of historic use).

Figure 3. Proposed Site Plan (ground floor)

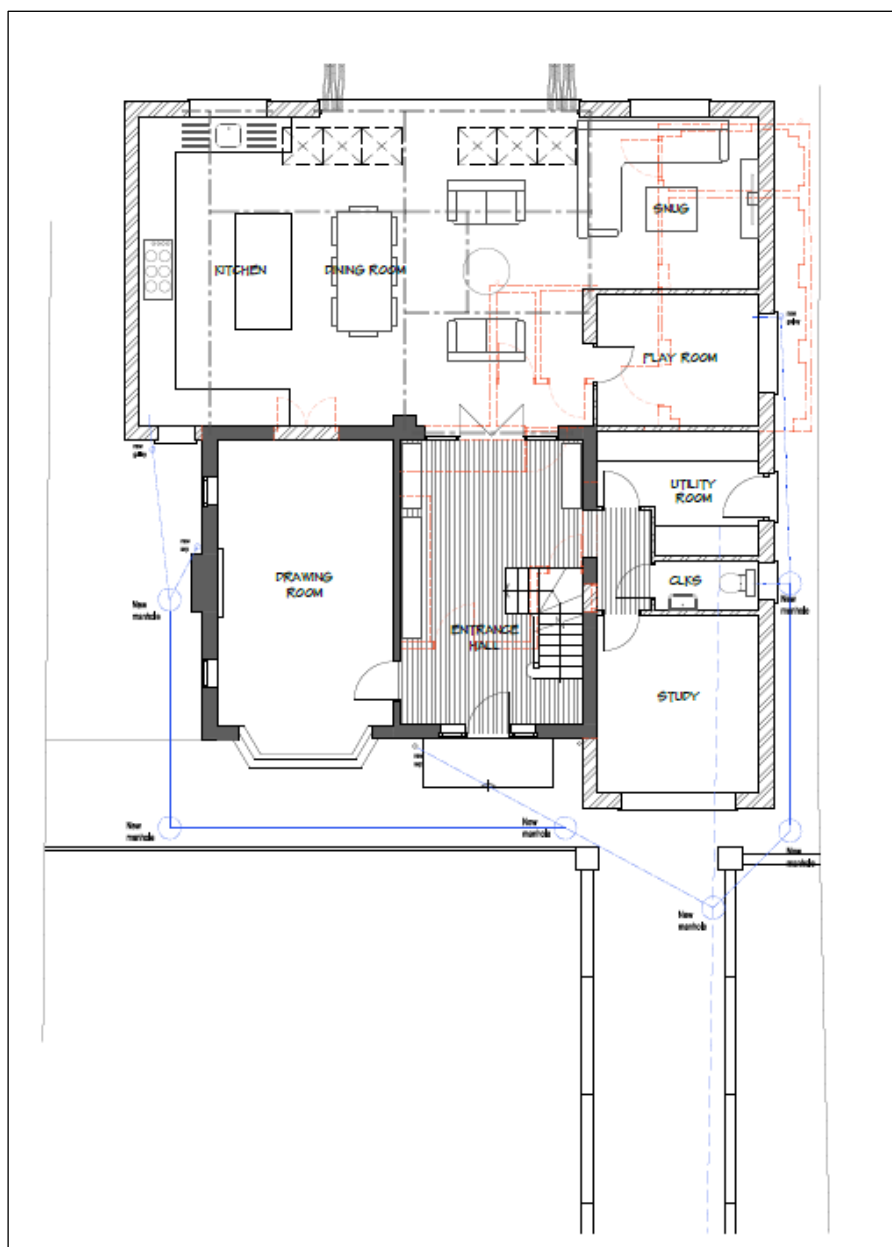


Figure 4. Proposed Site Plan (first floor)

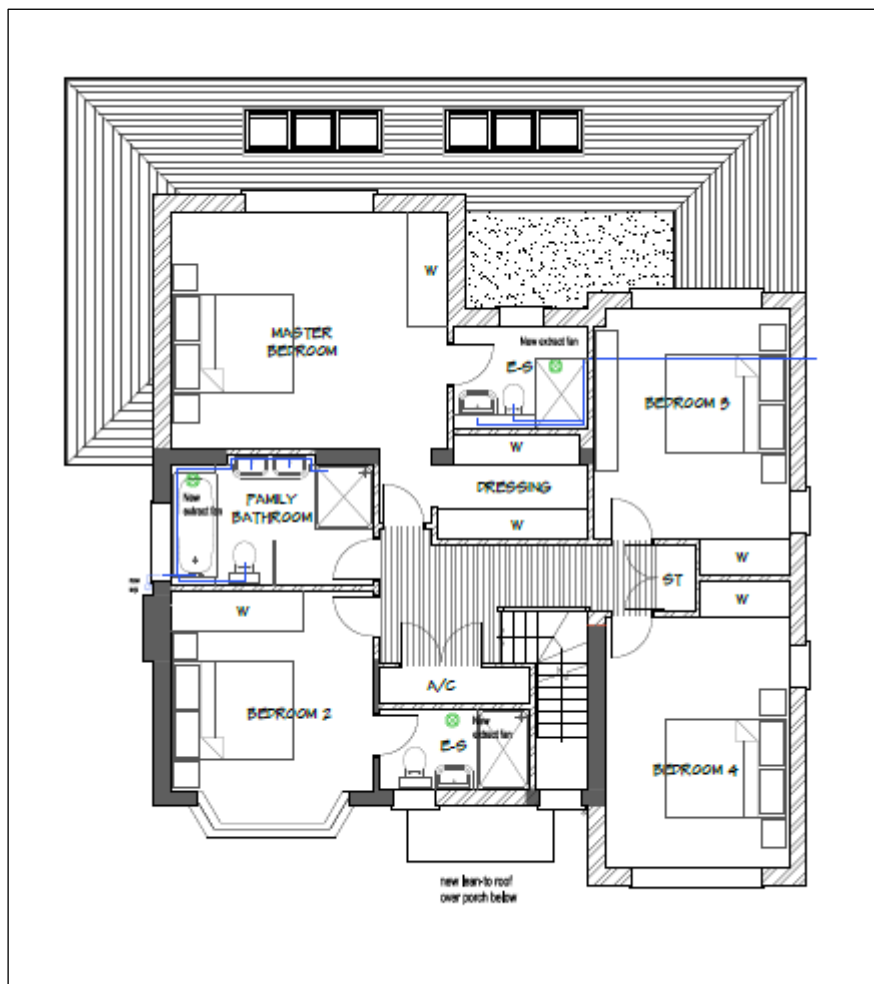
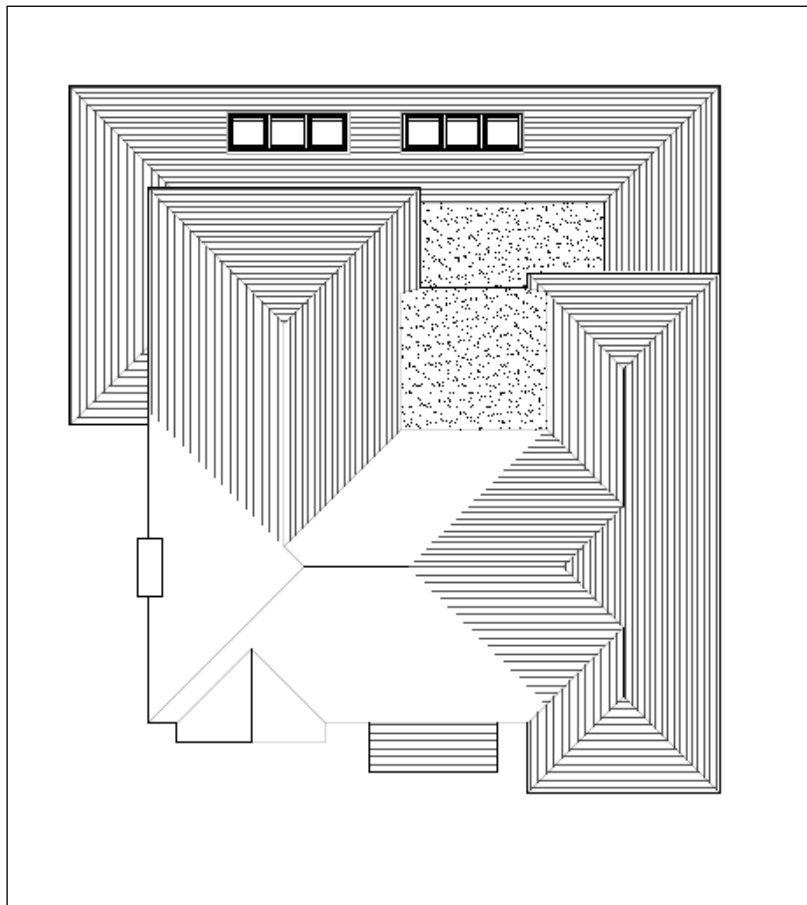


Figure 5. Proposed Site Plan (roof)



4.1.2 Preliminary Roost Assessment

Suitable roosting features were noted during the PRAs in May and June 2021, including gaps under the eaves / in the soffit boxes, gaps between roofing tiles and under ridge tiles, and internally gaps at the ridge which allows access to the void.

Evidence of roosting bats was identified in the form of a small number of droppings which were confirmed as Brown Long-eared bat droppings, as recorded during the update PRA in June 2021.

4.1.3 Evaluation of Roosting Potential

The building is considered to have to *Moderate* potential for roosting bats.

4.1.4 Activity Surveys

No evidence of use of the building by bats was found during the activity surveys, however, activity of Soprano Pipistrelle was recorded in close proximity to the site, and the building itself is considered to be suitable for use by similar species.

4.2 Mitigation and/or Enhancement

4.2.1 Bats

There are records of Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared bat, Daubenton's bat and Natterer's bat within 2km of the proposed development site. Soprano Pipistrelle and Noctule bats were recorded during the activity surveys.

The existing building is confirmed as being used by roosting bats, with a very small number of droppings attributed to Brown Long-eared bat present within the internal loft void, as recorded during the PRA in June 2021. The building has suitable roosting opportunities for bats, however, no bats were recorded emerging from the building during the activity surveys. Suitable features capable of supporting roosting bats remain present in the area of the proposed works, and it is considered possible that the use of those features can change over time. The presence of maternity colonies and hibernation roosts at the site is considered to be ruled out and the features present are unlikely to support anything other than opportunistic individual bats during the active season (May to September) on a very occasional basis.

As such, a licence from Natural England (mitigation licence of registration under Bat Mitigation Class Licence), including appropriate mitigation options, will be required for the works to proceed lawfully.

Impact Assessment

At the proposed development site a single confirmed active roost was recorded;

- The loft space at the ridge is infrequently used by one or two individuals of Brown Long-eared. This will be directly impacted by the proposed works.

Impacts to the above known roosting locations could include;

- Disturbance and modification of a roost of Brown Long-eared bat as well as the potential to kill and injure bats during works to the roof.
- Indirect impacts through disturbance during works to a roost of Brown Long-eared bat during works to the roof.

Mitigation and Enhancement

Impacts to bats and their roosts can only occur under a European Protected Species (EPS) from Natural England, which will need to include an agreed safe working methods and mitigation plan.

All agreed methods will be included in the licence application and appropriate mitigation and safe working methods can only be confirmed upon agreement of the licence. The methods will include;

- Works to only commence following receipt of a EPS licence or registration of the site under a Bat Mitigation Class Licence from Natural England.

- Alternative roosting during conversion works will include the provision of a bat box (Schwegler 1FF or similar) on an adjacent tree during works.
- Long term bat roosting provision will be incorporated as mitigation and / or enhancements and include additional roosting locations for Brown Long-eared in the enhanced loft space in the residential dwelling as well as the addition of two gable ends as part of the extension work that will be used (via soffit box roosting locations) to provide roosting opportunities for Brown Long-eared and also crevice dwelling species such as Soprano Pipistrelle which are regularly present in the area (*Figure 6*).
- The dimensions of the existing main loft will not be reduced in anyway and additional loft space will be added by increasing the dimensions of the current dormer windows to gables. The additional areas will provide enhancement by adding roosting potential and increasing the range of climate conditions for roosting. These measures, resulting from the development of the residential dwelling, will leave the current roosting features largely unchanged and provide the benefit of an increased amount of roosting space available for the bat species which are known to use the residential dwelling and surrounding area.
- Access tiles (two in the ridge) will be provided to ensure that bats can return to use the loft.
- Prior to the start of works a suitably qualified ecologist will deliver a tool box talk to contractors and staff on site, informing them of the likelihood of encountering bats, what to do if they find bats and give a brief overview of the licence documents.
- A pre-works check will be undertaken by suitably qualified ecologist of all known and potential roosting locations around the property. If the entirety of a feature can be searched and is found to be empty, these will be blocked. If the feature cannot be fully searched it will be excluded using folded acetate or similar to allow bats to leave the feature but not re-enter. If exclusions are used, they will be left in place for a minimum of 5 nights in suitable weather conditions. Following this they will be permanently filled using the same methods as above (newspaper or expanding foam).
- If bats are found during the works, they will be moved out of way by the ecologist, who will be wearing suitable gloves. The bat will be placed into a cloth bag and carefully placed into the pre-erected bat box.
- Prior to the exclusion exercise, any scaffolding erected around the dwelling should not obstruct access into or out of the suitable bat roosting features, such as gaps at wall tops.
- Breathable roofing membranes (BRM) must **not be used** in the construction of the new roofs where roosting features could be created due to issues with bat entanglement and reduced membrane performance if used in areas of bat use. 1F bitumastic felt is a suitable alternative, and should be used where possible.
- No lighting will be directed on known, potential or newly created bat roost access points or roosting features, and only movement activated timed security lighting is to be used outside of potential roosting locations.
- A lighting plan showing the location and specification for any proposed lights on the site will be produced. The lighting plan will adhere to the Bat Conservation Trust Bats and Lighting in the UK guidance (2018) and will include directing lighting away from all retained hedgerows

and trees at the boundaries of the site. The use of downlighting will ensure that suitable roosting features and foraging and commuting habitats remain unlit.

It is fully understood by the householder that a Licence is required to proceed with works upon completion of the recommended bat activity survey work. This assessment maintains that the evidence recorded allows for an assessment of impact upon protected species to be made. In summary the roost will remain in place and the features will be replicated in, in turn providing a good enhancement.

It is considered that, subject to the obtainment of an EPS licence or registration of the site under a Bat Mitigation Class Licence from Natural England, suitable mitigation will be incorporated into the proposals and that no adverse impacts to bats are anticipated with overall a benefit from the increased roosting space and new roosting locations.

4.2.2 Other species

A bird box is to be incorporated into the proposals to enhance the number of nesting opportunities for birds at the site. This will be positioned next to the tree bat box.

5 LEGAL PROTECTION

This section briefly describes the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation but summarises the salient points.

5.1 Bats

Legal Protection

All species of British bat are protected by *The Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst it occupies a bat roost.

Bats are also European Protected Species listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2017* under *Regulation 41*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats in such a way as to be likely to (a) impair their ability to: (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or b), to affect significantly the local distribution or abundance of the species to which they belong; and
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present.

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats and Species Regulations* it is possible to apply for a European Protected Species (EPS) licence from Natural England (NE). Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Regulation 53(2)(e) states that licences may be granted to “preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.”
- Regulation 53(9)(a) states that a licence may not be granted unless “there is no satisfactory alternative”.
- Regulation 53(9) (b) states that a licence cannot be issued unless the action proposed “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.