

Bat Survey Report

4 Church Road, Mendlesham, Suffolk



Mrs Sandie Judd, 4 Church Road, Mendlesham, Suffolk

June 2023

20231 R1 v2

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Report prepared by Dr J. Huckle for Huckle Ecology Ltd

Executive Summary

- In December 2022, Huckle Ecology was commissioned by Mrs Sandie Judd to undertake a bat activity survey of 4 Church Road, Mendlesham, Suffolk. The surveys were undertaken to inform a planning application for the re-roofing of the property, which is a Grade II listed building.
- The Site comprised the dwelling house present adjacent to Church Road with none of the works likely to affect adjacent garden areas or other semi-natural habitats in the vicinity.
- The survey included a Preliminary Roost Assessment undertaken in December 2022 that evaluated the building as providing moderate potential suitability to support bat roosting habitat; in accordance with recommended BCT survey guidelines (Collins, 2016), it was recommended that a minimum of two bat activity surveys be undertaken during the bat activity season (May – September).
- This report presents the results of the PRA and subsequent bat surveys undertaken in May and June 2023, and which included a site visit to update and corroborate the previous December 2022; the two bat activity surveys undertaken on May 14th 2023 and June 2nd 2023.
- The building inspection undertaken on December 15th 2022 confirmed that building supported features consistent with the previous assessment of moderate suitability.
- During the bat activity surveys, bat activity was recorded by three experienced surveyors from three locations to the west, north east and south east of the building.
- No bats were recorded emerging from the building on either of the surveys.
- Bat activity was recorded from all three vantage points, with the majority of bat passes identified as Common pipistrelle, and with other species recorded including soprano pipistrelle, brown long-eared bat and Natterer's bat. Bat activity was generally recorded at a relatively low level and was consistent with individual or small numbers of bat.
- The results of the bat survey are considered sufficient to provide confidence in a negative conclusion from a presence/absence survey of a structure with Moderate potential suitability as roosting habitat. Consequently, bats are considered to be likely absent from the building and unlikely to use the building as a potential roost.
- A European Protected Species mitigation licence (EPSL) application will not be required for the proposed development.
- Appropriate precautionary mitigation measures have been specified including recommendations for lighting specifications and for the use of Type 1F Bitumen Felt as a roof lining.

1 Introduction

1.1 Terms of Reference

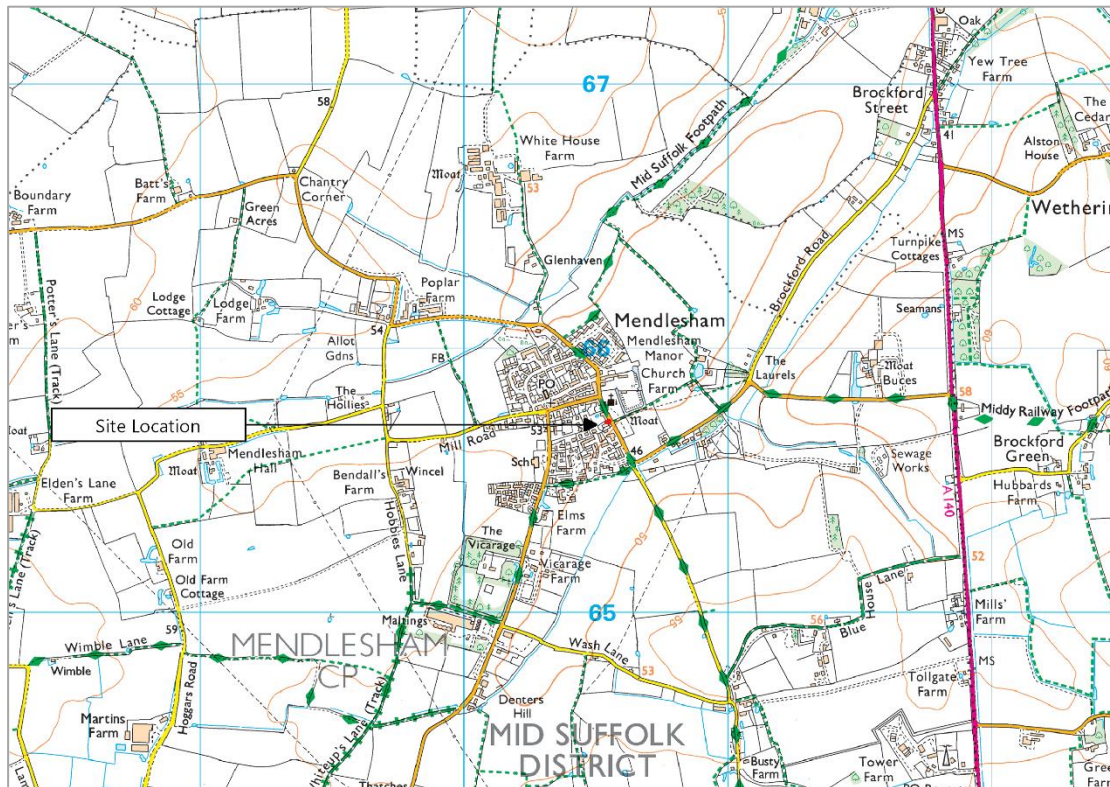
- 1.1.1 In May 2022, Huckle Ecology was commissioned by Mrs Sandie Judd to undertake a Bat Survey of 4 Church Road, Mendlesham, Suffolk, a private residence in the centre of the village of Mendlesham and hereafter referred to as 'the Site'.
- 1.1.2 The survey was commissioned to inform an application for Listed Building Consent (Ref DC/22/05953) to Mid Suffolk Council for the re-roofing of the building. A Heritage Statement accompanying the application provided the justification for the works and noted that the clay pan tiles showed significant wear and tear with significant gaps between individual tiles; the roofing felts and battens were noted to be decayed and that a complete replacement of tiles, battens and felt was required to protect the building.
- 1.1.3 Following the submission of the application for Listed Building Consent in 2022, Mid Suffolk District Council stated that the application triggered the need for biodiversity information and requested that a Preliminary Roost Assessment be undertaken.
- 1.1.4 Due to time constraints associated with undertaking the PRA and subsequent bat surveys, the initial planning application (DC/22/05953) was withdrawn, with a new planning application to be submitted upon completion of the bat surveys.

1.2 Site Description

- 1.2.1 4 Church Road is located to the south west of Mendlesham Church and to the west of Church Road, which follows an approximate north to south orientation with period residential properties to the west and the church and churchyard to the east of the road. The house is more or less adjacent to the road with a rear garden extending in a linear direction westward and which includes a small ornamental garden pond, perennial flower beds, vegetable beds and with timber fences separating the garden from neighbouring gardens to the north and south. There were no significant trees located within the garden although several semi-mature birch trees were located in gardens to the north west of the house.
- 1.2.2 The Site comprised the house (B1) which is a Grade II listed dwelling with external rendering to the walls. The main section of the house extends parallel to Church Road with a perpendicular gable wall fronting onto the road. The roof features, clay peg tiles and ridge tiles with timber fascia boards; there are two chimneys, constructed of red brick, one approximately mid way along the roof of the main section at the join of two roof sections, and a second chimney on the east-west roof section.
- 1.2.3 The gardens of the property predominantly lie to the west of the house and are not likely to be affected by the proposed work to the building.

1.3 Proposed Development

- 1.3.1 The proposed development is for the re-roofing of the main dwelling, consisting of the complete replacement of tiles, battens and felt.

Figure 1 Location Plan Showing location of 4 Church Road, Mendlesham**Figure 2 Existing Site Location Plan**

1.4 Aim of this Report

- 1.4.1 The scope of the ecological and protected species surveys undertaken was determined from a habitat suitability assessment for bats (as reported below) and an evaluation of the potential to support other protected species, undertaken in December 2022. This survey confirmed that no semi-natural habitats would be affected by the proposed works, with ac-

cess and materials being stored within existing areas of hardstanding and paved areas within the immediate vicinity of the dwelling. Although there is a garden pond approximately 40m northwest of the house, this pond was located within a residential garden and given that there were no excavations required for the proposed works, no surveys great crested newts were considered necessary and were therefore scoped out of the assessment.

- 1.4.2 It was concluded that the only protected species likely to be an ecological constraint were roosting bats and breeding birds, using the building structure for breeding.

2 Desk Study

2.1 Designated Sites

- 2.1.1 A search of online data resources determined that there was one statutory designated site located within 2km of the Site, Gipping Great Wood Site of Special Scientific Interest (SSSI) located approx. 4.0 km south west of the Site at its closest point. The SSSI citation¹ for Gipping Great Wood is an ancient coppice-with-standards wood on a plateau site situated close to the headwaters of the River Gipping. The has a complex mosaic of stand types present with pedunculate oak, hornbeam, Hazel, and ash in the canopy. The ground flora is characteristic of an ancient woodland site on slightly calcareous boulder clay and includes two uncommon species, Thin-spiked Wood Sedge *Carex strigosa* and Oxlip *Primula elatior*.
- 2.1.2 A review of the Mid Suffolk District Council Index of County Wildlife Sites (CWS) confirmed that the site itself was not included within a CWS and that there were no CWS within 2km of the Site.

2.2 Bat Records

- 2.2.1 A review of existing planning applications available on the Mid Suffolk District Council planning portal indicated that a comparable ecological assessment was undertaken for a proposal to re-roof a property in Front Street, Mendlesham, located approx. 100m north of the Site. The Ecological Assessment for this property, submitted in March 2022 (Skilled Ecology, March 2022) included a summary of contemporary bat records provided by the Suffolk Biodiversity Information Service (SBIS).
- 2.2.2 These records included the following bat records:
- Records of three species from Mendlesham Churchyard from 2012: Common pipistrelle *Pipistrellus pipistrellus*, Serotine *Eptesicus serotinus* and Brown long-eared bat *Plecotus auritus*.
 - Records of two species from 'Mendlesham' (unspecified location) from 2019 including soprano pipistrelle *Pipistrellus pygmaeus* and Noctule *Nyctalus noctula*.
- 2.2.3 These data were considered sufficiently recent as to provide an indication of bat species likely to be present, and a repeat of a data search was not considered essential or proportionate to the scale of the proposed works.

¹ [1004186 \(naturalengland.org.uk\)](https://naturalengland.org.uk)

3 Bat Surveys

3.1 Preliminary Roost Assessment-Scoping Survey

Methodology

- 3.1.1 A Site Visit was undertaken on 15th December 2022 to provide a bat Preliminary Roost Assessment (PRA) of the Site and to confirm the scope of further surveys that would be required to accompany the planning application, in line with best practice guidance on bat surveys (Collins, 2016).
- 3.1.2 The December 2022 building inspection survey was undertaken by Dr Jon Huckle, an experienced professional ecologist with over 25 years of postgraduate experience and over 20 years operating as an ecological consultant. He has undertaken numerous bat surveys, including building inspections, bat activity transects, emergence and return roost surveys and has managed ecological input to numerous ecology chapters of Environmental Statements. He has provided evidence as an expert witness on bat ecology at several planning inquiries.
- 3.1.3 The preliminary roost assessment comprised a detailed inspection of the exterior and interior of the building to look for features that bats could use for entry/exit and to search for signs of bats, in accordance with methodological guidance produced by the Bat Conservation Trust (Collins, 2016). The objective of the survey was to determine the actual or potential presence of bats and to identify potential emergence points to focus on during emergence surveys.
- 3.1.4 For each building or tree, the preliminary roost assessment assigns a category to each structure according to its potential for supporting bat roosts using the criteria detailed in the BCT survey guidelines (Collins, 2016) and summarised in Table 1 below.

Table 1 Guidelines for assessing the potential suitability of proposed development sites for bats, taken from Collins 2016.

<u>Suitability</u>	<u>Description of roosting habitats</u>	<u>Description of commuting and foraging habitat</u>
Negligible	Negligible habitat features onsite 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 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.) 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.	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. 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 and surrounding habitat but unlikely to support a	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.

<u>Suitability</u>	<u>Description of roosting habitats</u>	<u>Description of commuting and foraging habitat</u>
	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).	
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.	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. Site is close to and connected to known roosts.

Bird Survey

- 3.1.5 During the building inspections, signs of any old or active bird nests were recorded.

Survey Limitations

- 3.1.6 The PRA was undertaken in December 2022 in bright, sunny but cold weather conditions. Although PRA surveys can be undertaken throughout the year, inspections undertaken during winter or before the start of the bat activity survey are less likely to detect signs of bat activity such as bat droppings or feeding remains. An updated building inspection was conducted prior to further bat activity surveys subsequently undertaken in May and June 2023.
- 3.1.7 External features were checked as reasonably possible using binoculars and torches, although there were some areas where bats could roost that could not be checked thoroughly, or it was not safe to access.
- 3.1.8 The building was accessible internally with only one loft space present, within the east-west roof section with the end gable wall fronting on to Church Road. The main north-south roof section did not support an accessible loft space, with upper floor rooms supporting sloping ceilings extending parallel to the pitch of the roof line.

Results of Preliminary Roost Assessment

- 3.1.9 As noted above, 4 Church Road is Grade II listed dwelling, dating from the 15th Century. The Listing² states:

“House. C15; cross-wing extended forwards c.1800. Renovated c.1985. A hall range with projecting cross-wing to right. Timber framed and rendered, pantiled roof. 1½-storey hall range, 2-storey wing with small attic. Standard small-paned casement windows and 2 panelled doors, all of 1980’s. One gabled dormer. Internal stack in hall range, at junction with wing. A further stack of later date in the wing. Interior. 2-bay former open hall has original coupled-rafter roof. Tie beam of open truss cut away, all framing concealed. Fine cross-beamed ceiling, inserted in early C16. The main axial beam is enriched with a series of cavetto and roll mouldings, the intersecting beams have double cavetto moulding; cavetto-moulded joists with an undercut roll mould on the soffits. The joists run at right angles in each adjacent division and have

²4, CHURCH ROAD, Mendlesham - 1032243 | [Historic England](#)

matchboarding between them. Stack inserted into presumed upper bay of hall; it has sections of unfired brick, an unusual feature. 3-bay cross-wing: some exposed studding, one open tie beam with a single thick brace to one wallpost; a second tie beam has been removed. On the ground floor, some very heavy irregular joists and evidence for an arched doorway at one bay division. Roof over wing largely renewed 1980's; some older timbers at rear."

External Inspection

- 3.1.10 The roof was inspected from ground level using close-focusing binoculars. The roof was confirmed to comprise clay pan tiles and ridge tiles, with roof elevations to the west overlooking the rear garden, north (along the edge of the wing) and southeast. The pan tiles were generally intact with no missing tiles apparent on any of elevations. However, it was noted that slightly displaced and raised tiles were present on both elevations, which created potential access points for individual or small numbers of bats.
- 3.1.11 The ridge tiles were generally intact, and presented limited roosting potential, but lead flashing was noted around the bases of both chimneys and to the side of dormer windows present on the west and east roof elevation, which could potentially support access points for bats.
- 3.1.12 On the west side of the building, a single storey lean-to extension was present and extending west into the garden. This single storey extension was of relatively recent construction (20th Century) and the roof was in excellent condition with intact mortaring along the ridge tiles and few potential roost features (PRFs); this extension is not scheduled for re-roofing works and was not considered further. .
- 3.1.13 The walls of the building comprised plastered render that appeared in excellent condition with no apparent PRFS present around the windows or along the edge of the gable walls. The walls extended up to the eaves on the north and south elevations where there was a timber fascia/soffit which appeared to be excellent condition.
- 3.1.14 The roof was the structural feature of the building with the greatest potential to support roosting bats, with PRFS associated with:
- Loose and raised tiles present in various locations on both the west, southeast and north elevation of the main roof;
 - Cavities associated with lead flashing on each chimney and mortar gaps on each chimney;
- 3.1.15 The presence of numerous PRFs associated with the loose/raised tiles, and raised cladding resulted in the conclusion that the roof was of **Moderate** potential suitability as roosting habitat (Collins, 2016).

Internal Inspection

- 3.1.16 Access to the loft of the east-west wing of the dwelling was via a small hatch. The loft within this section of the roof was in generally good condition, and consistent with the building listing (see above) stating that the wing was re-roofed in the 1980s. The roof timbers comprised a mixture of older timber beams and more recent sawn timbers with bitumen felt lining throughout that appeared to have been patched in places (see photos below).
- 3.1.17 A brick chimney stack was present and was of red-brick construction and had been re-pointed in the past and lacked suitable mortar holes that could be used by bats.

- 3.1.18 The roof space was considered to be relatively well-sealed with no obvious gaps in the roof lining or at beam junctions where bats could access it. A search of the loft floor and stored materials revealed no bat droppings, urine staining or other signs of bats. Numerous mouse droppings and a dead mouse were noted.
- 3.1.19 There were no accessible loft spaces in the north-south section of the building, with attic rooms extending to the apex of the roof.
- 3.1.20 It was concluded that the loft space in the east west wing could potentially provide roosting habitat for bats but that access was limited for bats.

Evidence of Bird Nesting

- 3.1.21 No birds nest were noted during the internal inspection of the roof, but it was considered likely that small passerine birds, including house sparrow, starling and wren would be able to access small spaces and thus could potentially nest under loose tiles or under the eaves.

3.2 Conclusion of Preliminary Roost Assessment

- 3.2.1 Based on the findings of the external and internal inspection, the presence of PRFs was confirmed, primarily associated with loose or displaced clay roof tiles.
- 3.2.2 Consequently, it was concluded that the building was consistent with a structure with **Moderate** potential suitability for bat roosting habitat and had "...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".
- 3.2.3 Therefore it was recommended that two bat activity habitats should be undertaken to provide confidence in a negative result, or, if bats were recorded to provide sufficient information to characterise the nature of a bat roost (in terms of the species present, the numbers of bats, and the type of roost present).

Photo 1 West elevation (rear) facing towards garden



Photo 2 Northwest corner with raised tiles near ridge tiles



Photo 3 West elevation showing lead flashing and chimney



Photo 4 South east elevation showing raised tiles and flashing around chimney



Photo 5 South east elevation – raised tiles and flashing around dormers



Photo 6 North elevation – raised tiles (scattered ad flashing along junction in roof)



Photo 7 Interior of loft – looking east showing inside of gable wall



Photo 8 Interior of loft – roof details showing timber supports and bitumen felt



Photo 9 Interior of loft – good condition mortar on brick work on chimney



Photo 10 Interior of rooms in north-south section with plastered ceiling and timber beams



3.3 Bat Activity Survey Methodology

- 3.3.1 Between May and June 2023, two bat activity surveys were undertaken, consistent with the level of survey effort recommended to provide confidence in a negative result for a building or structure evaluated as providing moderate potential suitability for roosting habitat (Collins, 2016).
- 3.3.2 Observations were made from outside, from three vantage point locations:
- VP1 - West of the building, viewing the west elevations;
 - VP2 - South East of the building, viewing the south and south east elevations;
 - VP3 - North east of the building, viewing the north elevation and the gable end wall adjacent to Church Road
- 3.3.3 These positions were selected to provide as much coverage of the roof and building features most likely to support bat roosts or where bats may access the building.
- 3.3.4 The dusk surveys commenced fifteen minutes before sunset until ninety minutes after sunset, by which time any bats present were expected to have emerged (Collins, 2016).
- 3.3.5 All emergence surveys were undertaken by Jon Huckle, assisted by a team of experienced surveyors comprising Terry Stopher and John Worthington-Hill.
- 3.3.6 Bat activity was surveyed using full spectrum handheld bat detectors: an Elekon Batlogger M2, an Anabat Scout detector and an EMTouch Pro attached to a tablet or smartphone. Time-expanded (x10) recordings were later analysed using computer software (e.g., Sonobat, BatExplorer or Kaleidoscope).
- 3.3.7 Night Vision Aids (NVAs) were used alongside each surveyor comprising two Sony AX-53 video camcorders, one Nightfox Red IR recorder with infrared illuminators lights to provide additional infrared lighting, and a Guide IR 19 Pro Thermal camera. The NVAs were positioned to provide coverage of the areas of the roof where bats were considered most likely to emerge.
- 3.3.8 The bat surveys were conducted during the bat activity season (May to September) using the correct methodology as per The Bat Conservation Trust Bat Survey - Good Practice Guidelines (Collins, 2016).

Survey Limitations

- 3.3.9 The initial bat preliminary roost assessment was undertaken in December 2022 and was updated and confirmed by the May 2023 survey.
- 3.3.10 External features were checked as far as was reasonably possible, although it was not possible to inspect tiles and roof thoroughly.
- 3.3.11 The bat emergence surveys were undertaken in optimal weather conditions for bat activity surveys, in dry weather and at appropriate temperatures. The vantage points were selected to provide coverage of the building elevations that could be easily viewed and accessed.

3.4 Bat Activity Survey Results

Activity Survey 1 – Dusk Emergence Survey – 14th of May 2023

3.4.1 Weather conditions were optimal for bat activity surveys:

- Air temperature - 15°C (start) - 14°C (end)
- Wind - Beaufort scale 1-2 (light air- light breeze)
- Precipitation - none
- Cloud - clear skies - no cloud (0/8 oktas)

3.4.2 The survey commenced at 20.35 with sunset scheduled for 20.45.

3.4.3 Observations were made from outside, from positions to the northeast, southeast and west of the building providing good visual coverage of the entire roof and elevations of the building.

Summary of Survey on 14.05.2023

3.4.4 In summary, no bats were recorded emerging from the building by any of the three surveyors.

3.4.5 Bat activity was relatively low with the majority of bats recorded identified as being Common pipistrelle. Occasional passes of two other species were also recorded: soprano pipistrelle and brown long-eared bat. Bats were initially recorded from around 21.03 which is relatively soon after sunset and indicative that the individual bats roosted nearby, with the church to the northeast, the most likely location.

3.4.6 Bat activity then subsided until around 22.00 hrs when at least two Common pipistrelle bats were recorded regularly between 22.00 and 22.15. These bats were generally heard but not seen, but review of thermal camera imagery recorded two bats chasing each other around the rooftops and tree canopy to the east of Church Road. No bats were seen to re-enter any roosts and numerous social calls were recorded indicative of behavioural interactions.

Activity Survey 2 – Dusk Emergence Survey – 2nd of June 2023

3.4.7 Weather conditions were optimal for bat activity surveys:

- Air temperature - 11°C (start) - 10°C (end)
- Wind - Beaufort scale 1-2 (light air- light breeze)
- Precipitation - none
- Clear sky (0/8 oktas)

3.4.8 The survey commenced at 21.00 with sunset scheduled for 21.08.

3.4.9 Observations were made around the house providing visual coverage of the entire roof and elevations of the building.

Summary of Survey on 02.06.2022

3.4.10 In summary, no bats were recorded emerging from the building.

- 3.4.11 Bat activity recorded during the survey was again relatively low with most passes identified as Common pipistrelle, with one single pass each of two other species, soprano pipistrelle and Natterer's bat. The activity levels suggested that bats were foraging in the rear gardens and were also recorded commuting and foraging along the tree line on the east side of Church Road that formed the boundary of the churchyard.

3.5 Conclusion of Bat Activity Surveys

- 3.5.1 In summary, no bats were observed emerging from the building. On both activity surveys, relatively low bat activity was recorded with the majority of bat passes identified as Common pipistrelle. Three other species were recorded during the surveys: soprano pipistrelle, brown long-eared bat and Natterer's bat.
- 3.5.2 The bat activity included calls relatively soon after dusk, indicative of bats roosting in a nearby location. There are a number of other period properties along Church Road, but the most obvious location is Mendlesham Church located to the north east, and which is likely to support bat roosting habitat; three species of bat, including Common pipistrelle and brown long-eared bat have previously been recorded in the churchyard in 2012.
- 3.5.3 The trees present within the rear gardens, north west of the property, and along the churchyard boundary with Church Road, are considered to provide foraging habitat, and would be used by commuting bats.

4 Discussion and Recommendations

4.1 Evaluation

Bats

- 4.1.1 During the initial building inspection in December 2022, potential roost features were identified, associated with the clay roof and ridge tiles and the brick chimneys present within the roof structure. The internal inspection confirmed that potential roosting habitat was present within the loft. The presence of Potential Roost Features associated with the roof and loft resulted in the evaluation of the building as providing Moderate potential roosting habitat for bats.
- 4.1.2 No droppings or other signs of bats were noted during the inspection and no bats were seen roosting inside the loft during the PRA inspection.
- 4.1.3 Activity surveys on the 14th May and 2nd June 2023 recorded no emergence of bats from the building. The bat activity recorded bats echolocating that were predominantly identified as Common pipistrelle, with most records of individual or small numbers of bats (max count of 2-3 bats); the bat activity was consistent with bats foraging around trees along Church Road, and in gardens to the rear of the property.
- 4.1.4 Other bat species recorded during the surveys (and not roosting in the building) included Soprano pipistrelle, Natterer's bat and Brown long-eared bat, all recorded very infrequently with individual bats present.

- 4.1.5 The results of the two bat activity surveys are considered sufficient to provide confidence in a negative conclusion from a presence/absence survey of a structure with Moderate potential suitability as roosting habitat. Consequently, bats are considered to be likely absent from the building and unlikely to use the building as a potential roost.
- 4.1.6 Nevertheless, regardless of the non-significant nature of the potential impacts on bats outlined above, measures designed to minimise the potential effects of the scheme on bats and provide potential habitat enhancements for local bat populations are outlined below.
- 4.1.7 In accordance with guidance published by Charter Institute of Ecology and Environmental Management (CIEEM) the survey results are considered valid for a period of up to 18 months (CIEEM, April 2019).

4.2 Mitigation and Enhancement Measures

- 4.2.1 For the proposed works to the roof, the works do not require an application for a European Protected Species Licence (EPSL) from Natural England.
- 4.2.2 However, it is important to note that bats are highly mobile in terms of their use of roosts, both spatially within a local area and temporally through the year. Although the building was considered unlikely to support roosting bats, the presence of loose tiles means that the use of such features by bats on an opportunistic basis cannot be eliminated entirely.
- 4.2.3 In the unlikely event that individual bats are recorded when removing the existing tiles, all works must temporarily be suspended and the advice of a suitably qualified bat ecologist should be sought to allow the works to continue in a lawful manner and to minimise the risk of disturbing bats.
- 4.2.4 The following precautionary mitigation measures are recommended to minimise the residual risk of impacts to bats:
- Any works to the roof should proceed with the removal of tiles and existing flashing by hand;
 - Toolbox talks and issuing of factsheets to contractors to provide information regarding the legal protection conferred on bats as detailed above.
 - No new external lighting is proposed as part of the re-roofing works. If any future lighting is installed, it should consist of 'warm white' LED luminaires, ideally with motion sensors and avoiding illumination of adjacent trees, in line with lighting guidelines (Bats and Lighting in the UK, Bat Conservation Trust 2018).
 - It is recommended that the re-roofing works be undertaken using traditional type 1F bitumen felting to minimise the risk of bat mortality arising from bat becoming entangled within the fibres of Non-Bitumen Coated Roofing Membrane (NBCRM).
- 4.2.5 The following enhancement measures are considered sufficient to increase the potential bird nesting and bat roosting opportunities within the property curtilage of 4 Church Road, and will represent a proportionate net gain for biodiversity in line with national and local planning policy. Due to the Listed nature of the building, wall-mounted bat boxes are not recommended to the property itself. However, the following are recommended to be installed within the garden or to adjacent trees (subject to gaining consent from the managers of the churchyard):

- Installation of 1x bat box mounted on a tree of suitable size within the garden or adjacent churchyard. The bat box should be of standard woodcrete construction such as the 'Schwegler 2F' or equivalent to maximise durability while minimising maintenance requirements.
- Installation of 1x bird box, of woodcrete construction to provide additional bird nesting opportunities within the back garden; it is recommended that the box should be either a small (28mm diameter hole) or open-fronted (for robins etc) design and located in a sheltered position protected from wind, rain and direct sunlight, approx. 1.5m to 5m above ground level.

Birds

- 4.2.6 As breeding birds are statutorily protected, to avoid impacts on breeding birds and committing an offence, removal of any structures should be undertaken outside of the breeding bird season (March - July inclusive). Should this not be possible then all areas identified for clearance must be checked for nests by an ecologist prior to clearance. If any nests are identified, then this area should be clearly delineated, and no works allowed until after chicks have fledged and the nest has been abandoned.

5 References

CIEEM. (April 2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Winchester: CIEEM.

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

MHCLG. (2019). *National Planning Policy Framework*. London, UK.: Ministry of Housing, Communities and Local Government.

Skilled Ecology. (March 2022). *Bat & Bird Assessment at 4 Front Street, Mendlesham, Stowmarket, Suffolk, IP14 5RY*.

Appendices

Appendix 1 - Summary of Legislation - Bats

This section provides a brief guide to legislation and planning policy, and it is recommended that the full text of policy and legislation is consulted for the correct legal wording.

All bat species benefit from statutory protection provided by the 'Habitats Regulations' and the Wildlife and Countryside Act, which have been enshrined within national and local planning policy throughout England and Wales.

All bat species are included in Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). Under Regulation 43 it is an offence to:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb bats including:
 - impairing their ability to survive, breed or rear young;
 - impairing their ability to hibernate or migrate;
- Significantly affect the local distribution or abundance of that species
- Damage or destroy a breeding site or resting place of a bat;
- Possess, control, transport, sell or exchange any live or dead bat, or any part or thing derived from a bat.

Bats are listed on Schedule 5 of the Wildlife & Countryside Act 1981, as amended, and as such are protected under Section 9 of the Act, which applies to all stages in their life cycle and makes it an offence to:

- intentionally kill, injure or take bats. [Section 9(1)]
- to possess or control a bat, live or dead or any part or thing derived from them. [Section 9(2)]
- to intentionally or recklessly damage, destroy, or obstruct access to any structure or place which bats use for shelter or protection. It is also an offence to intentionally disturb them while occupying a structure or place which it uses for that purpose. [Section 9(4)]
- to sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead bat or any part or thing derived from them. [It is also an offence to publish or cause to be published any advertisement likely to be understood as conveying that bats, or parts or derived things of them are bought, sold or are intended to be]. [Section 9(5)]

Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Paragraph 98 of Circular 06/2005 states that 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat'.

Section 9 of the National Planning Policy Framework 2019 (NPPF) (MHCLG, 2019) states that 'the planning system should contribute to and enhance the natural and local environment by ... minimising impacts on biodiversity and providing net gains in biodiversity where possible.'

Exemptions can be granted from the protection afforded to bats under the Habitat Regulations, by means of an EPS (European Protected Species) Habitats Regulations licence obtained from Natural England: An EPS Licence is required before the commencement of any development that might impact on bats and their roosts.

An 'EPS Habitats Regulations Licence' could be required for:

- Demolition of a building known to be used by bats prior to development of a site
- Conversion of barns or other buildings to be used by bats
- Removal of trees known be used by bats as well as tree pruning
- Significant alterations to roof voids known to be used by bats
- Road building or widening
- Bridge strengthening

There are three tests, which must be satisfied before a licence can be issued to permit otherwise prohibited acts;

- Regulation 55(2)(e), for the purpose of preserving 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; or
- Regulation 55(9)(a) and there is no satisfactory alternative; and
- Regulation 55(9)(b) that the action authorised will not be detrimental to the maintenance of the species concerned at favourable conservation status in their natural range.

Appendix 2 - Results of Bat Activity Surveys

Bat Emergence Survey 1 – 14.05.2023

Table 2 Results of Activity Survey 1 - Emergence Survey on 14.05.2023 (Sunset at 20.45)

<u>Time</u>	<u>Species</u>	<u>Observation</u>
Vantage Point 1 (JH) – West of House viewing west elevation of roof.		
No emergence of bats recorded		
45x bat passess of Common pipistrelle, 10x passes of soprano pipistrelle.		
20.35		Survey start
21.09	Common pipistrelle	2x passes – heard to north of VP near birch trees
21.11	Common pipistrelle	3x passes, single bat flew over house from East and then flying around trees in garden behind VP
21.14	Common pipistrelle	2x passes, brief passes from trees in garden to north west of VP
22.05	Common pipistrelle	1x pass, brief pass, heard but not seen
22.06	Common pipistrelle	1x pass, single pass heard but not seen
22.08	Common pipistrelle	5x passes, individual bat foraging in garden to NW of VP
22.09	Common pipistrelle	2x passes
22.10- 22.15	Common pipistrelle	26x passes, more or less continuous activity of 2x Common pipistrelle bats chasing each other around rooftops and along Church Road.
22.10- 22.15	Soprano pipistrelle	10x passes of individual bats flying along rooftops
22.15- 22.20	Common pipistrelle	3x passes, brief calls of individual bats
22.20		Survey end
Vantage Point 2 (JWH)- NE of Building viewing north elevation and end of gable wall		
No emergence of bats recorded		
25x passes of Common pipistrelle, and 3x passes of soprano pipistrelle, 4x passes of brown long-eared bat.		
20.35		Survey start
21.03	Common pipistrelle	1x pass heard but not seen, possibly in churchyard behind VP
21.04	Common pipistrelle	1x pass heard but not seen, possibly in churchyard behind VP
21.09	Common pipistrelle	1x bat, flew from rear garden and towards churchyard to east
21.18	Common pipistrelle	1x pass – heard but not seen
21.26	Brown long-eared bat	1x pass, not seen
21.37	Brown long-eared bat	1x pass, heard but not seen
21.50	Common pipistrelle	1x pass
21.58	Brown long-eared bat	1x pass, heard but not seen
22.00	Brown long-eared bat	1x pass
22.00- 22.05	Common pipistrelle	2x passes – occasional calls
	Soprano pipistrelle	2x passes
22.05- 22.10	Common pipistrelle	8x passes, regular passes with social calls
22.10- 22.15	Common pipistrelle	8x passes, regular passes – bats flying along Church Road
22.12	Soprano pipistrelle	1x pass – very faint
22.20		Survey end

<u>Time</u>	<u>Species</u>	<u>Observation</u>
Vantage Point 3 (TS)- SE of Building viewing east elevation of main building and south elevation of wing		
No emergence of bats recorded		
22x passes of Common pipistrelle, 3x pass of soprano pipistrelle .		
20.32		Survey start
21.03	Common pipistrelle	1x bat recorded heard but not seen
	Soprano pipistrelle	1x bat recorded – heard but not seen
21.04	Common pipistrelle	1x pass
21.09	Common pipistrelle	1x pass – heard but not seen, prob in churchyard behind VP
21.11	Common pipistrelle	2x passes, bat seen to fly from churchyard and straight over roof of house into back garden
21.24	Common pipistrelle	1x pass, bat seen to fly eastward into churchyard
21.28	Common pipistrelle	1x pass bat flying along tree line
21.30	Common pipistrelle	1x pass, heard but not seen
22.04	Common pipistrelle	2x passes, flying along tree line adjacent to churchyard
22.05-	Common pipistrelle	7x passes, flying along tree line or church road
22.10	Soprano pipistrelle	1x pass, hbns
22.10-	Common pipistrelle	5x passes, flying along tree line
22.15	Soprano pipistrelle	1x pass, hbns
22.20		Survey end

Bat Emergence Survey 2 - 02.06.2023

Table 3 Results of Activity Survey 2 - Emergence Survey on 02.06.2023 (Sunset at 21.10 hrs)

<u>Time</u>	<u>Species</u>	<u>Observation</u>
Vantage Point 1 (JH) – West of House viewing west elevation of roof.		
No emergence of bats recorded		
24x bat passess of Common pipistrelle, 1x pass of Natterer’s bat.		
21.00		Survey start
21.33	Common pipistrelle	2x passes; bat flew from north and then west to south of birch trees in adjacent garden.
21.36	Common pipistrelle	2x passes – bat flew east and to north of house, from area of birch trees towards VP2
21.40	Common pipistrelle	1x passfaint and distant – brief pass, heard but not seen
21.41	Common pipistrelle	1x pass faint and distant
21.45	Common pipistrelle	1x brief pass, prob flying in gardens to north west of VP
21.47	Common pipistrelle	2x passes, foraging in gardens behind VP, seen flying off to north
21.50-55	Common pipistrelle	7x passes, with last one of bat seen flying west to east over roof towards VP3
22.05	Common pipistrelle	1x pass, heard but not seen
22.14	Common pipistrelle	1x pass, heard but not seen
22.16	Common pipistrelle	1x flat commuting call, not seen
22.22	Common pipistrelle	1x pass, commuting overhead
22.23	Natterer’s bat	1x pass, flew west from churchyard over trees
22.25-	Common pipistrelle	2x passes, with feeding buzzes from bats foraging in garden behind VP
22.30		
22.30-	Common pipistrelle	2x passes, hbns
22.40		

<u>Time</u>	<u>Species</u>	<u>Observation</u>
22.40		Survey end
Vantage Point 2 (JWH)- NE of Building viewing north elevation and end of gable wall		
No emergence of bats recorded		
16x passes of Common pipistrelle		
20.50		Survey start
21.29	Common pipistrelle	1 st bat recorded – flew from north west between house and neighbouring building to north.
21.35	Common pipistrelle	1x pass, flew from back garden
21.36	Common pipistrelle	1x pass – bat flew from NW from back garden
21.39	Common pipistrelle	1x pass, heard but not seen
21.45	Common pipistrelle	1x pass, heard but not seen
21.50	Common pipistrelle	2x bats, one flew from churchyard into rear garden past north elevation; 2 nd bat seen commuting south along road
21.51	Common pipistrelle	1x bat heard but not seen
21.54	Common pipistrelle	2x bats, heard but not seen
22.05	Common pipistrelle	1x pass – heard but not seen
22.14	Common pipistrelle	1x pass
22.28	Common pipistrelle	1x pass heard but not seen
22.31	Common pipistrelle	1x pass, Heard but not seen
22.36	Common pipistrelle	1x pass, heard but not seen
22.37	Common pipistrelle	1x pass, heard but not seen
22.40	-	Survey ended
Vantage Point 3 (TS)- SE of Building viewing east elevation of main building and south elevation of wing		
No emergence of bats recorded		
17x passes of Common pipistrelle, 1x pass of soprano pipistrelle		
20.50		Survey start
21.29	Common pipistrelle	1 st bat recorded, 1x bat seen flying along edge of churchyard next to road
21.36	Common pipistrelle	1x pass heard but not seen
21.45	Common pipistrelle	1x pass, bat seen flying along trees in churchyard
21.50	Common pipistrelle	1x pass, flying south along treeline
21.54	Common pipistrelle	2x passes, flying along treeline
22.05	Common pipistrelle	1x pass heard but not seen
22.12	Soprano pipistrelle	1x pass, heard but not seen
22.14	Common pipistrelle	1x pass, heard but not seen
22.15- 22.30	Common pipistrelle	4x passes, all heard but not seen
22.30- 22.40	Common pipistrelle	5x passes, seen foraging around street light
22.40		Survey end