

PRELIMINARY BAT ROOST ASSESSMENT

ST PETER'S CHURCH THE WARREN, CAVERSHAM READING RG4 7TH

Client: Caversham Thameside & Mapledurham Parish

Our reference: Eco4025

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1.0 Introduction

Survey and reporting

- 1.1 This report details the results of a Preliminary Bat Roost Assessment of St Peter's Church, The Warren, Caversham, Reading, RG4 7TH.
- 1.2 The survey to inform the assessment was undertaken on 27 February 2026.

The site

- 1.3 The site is located at the south of the intersection of The Warren and Church Road, two residential roads in Caversham, Reading (Grid reference SU 7089 7489, Figure 1).
- 1.4 It comprises St Peter's Church, a Grade-II* listed building, and its associated churchyard with trees.

Details of proposed works

- 1.5 It is proposed to partially re-roof part the church: the south slope of the south aisle and both roof faces of the vestry (roofs 1, 7 & 8 in Figure 2 below).
- 1.6 It is understood that no planning permission or listed building consent is required for the re-roofing works.
- 1.7 Faculty Consent will however need to be obtained.

Figure 1 – Site location

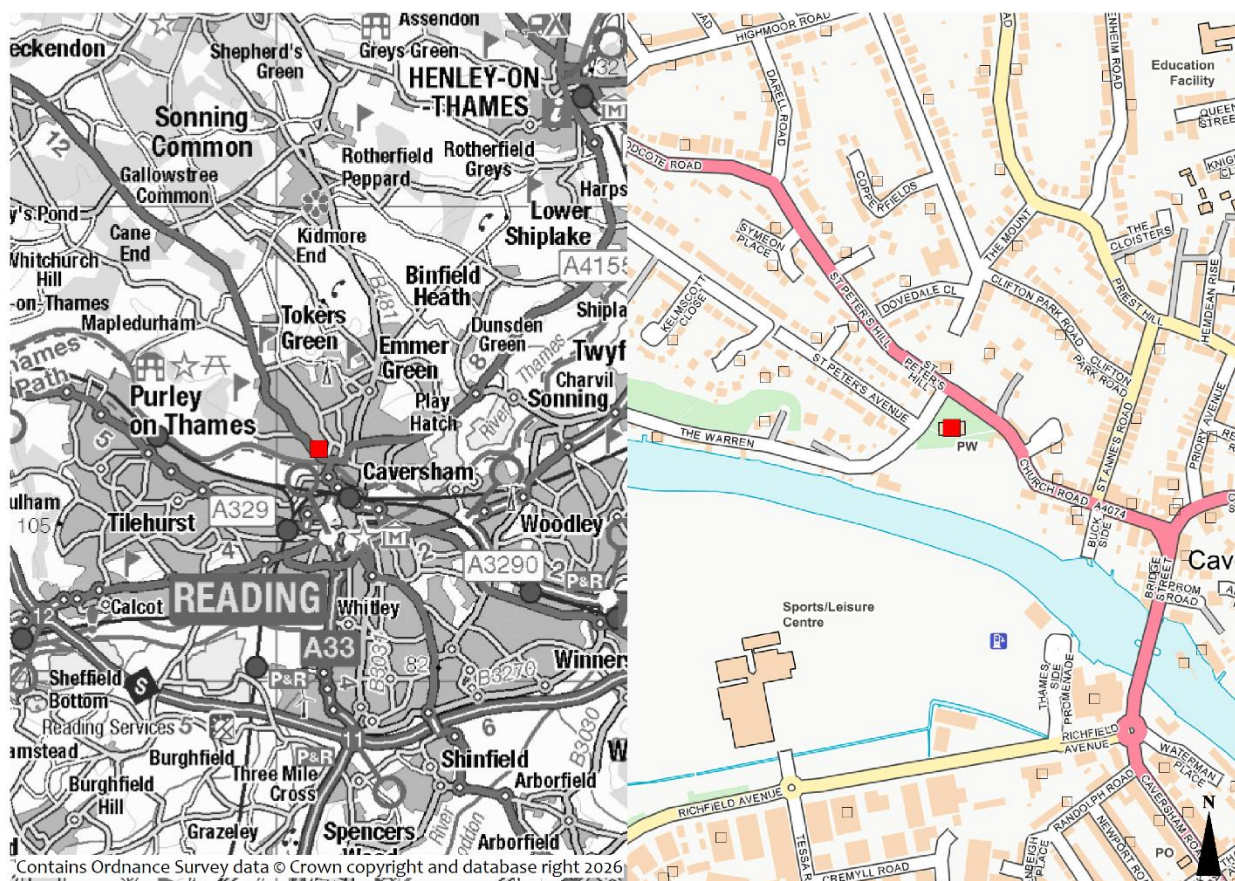
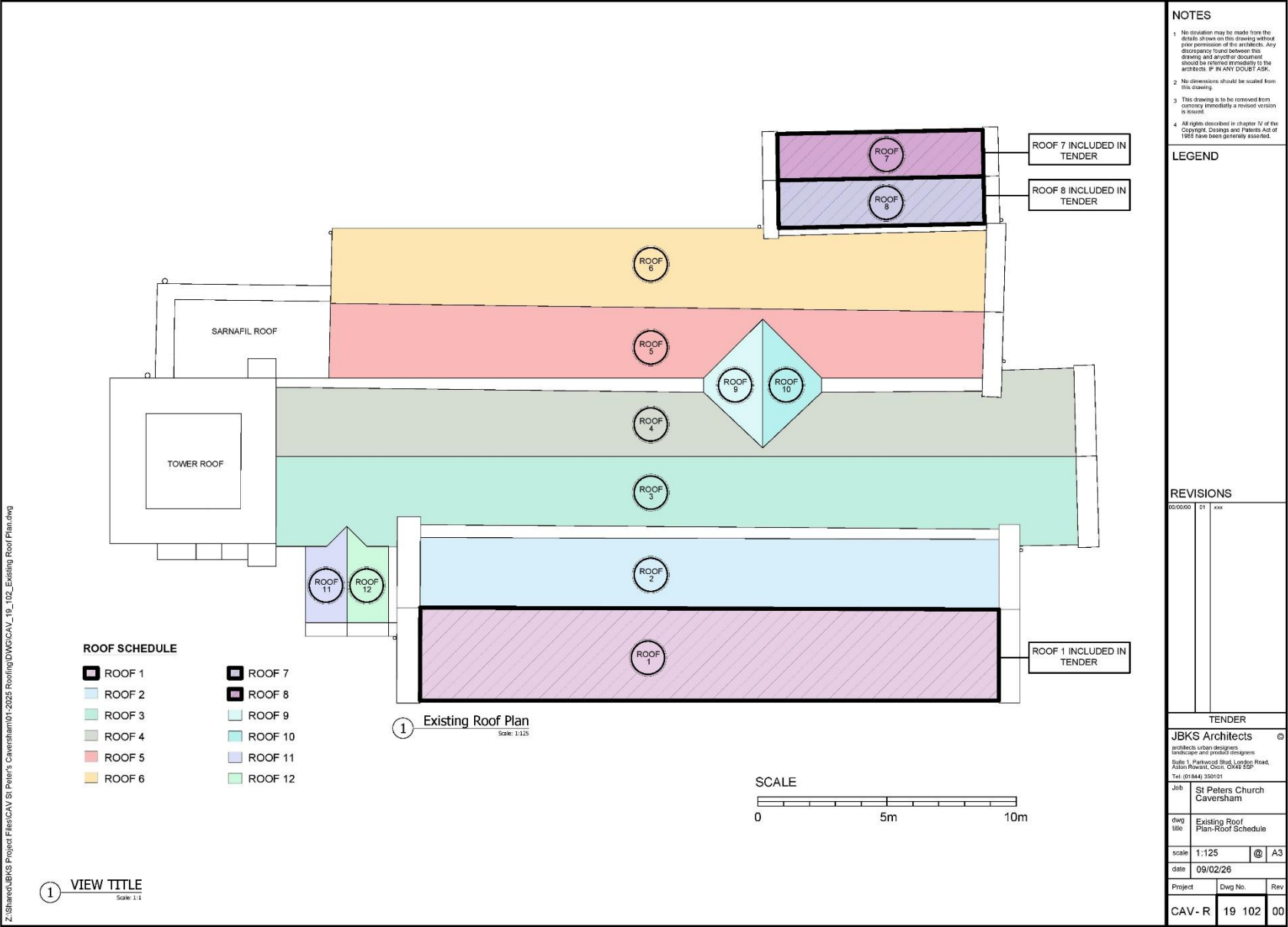


Figure 2 – Roof plan with proposed re-roofing areas (shown bordered in black)



2.0 Methodology

Desk study

- 2.1 A desk study data search was undertaken. This involved reviewing publicly available datasets and citations of statutory designated sites of importance for nature conservation, Natural England's Priority Habitat Inventory GIS dataset for England, and Natural England's Ancient Woodland Inventory for sites within the zone of influence of the survey area (considered to be a maximum of 1km in this case).
- 2.2 In addition, species records (on Natural England's MAGIC website¹) were accessed, and aerial photographs and Ordnance Survey maps were studied for features of interest.

Bat survey

- 2.3 A bat survey was undertaken. This comprised:

Daytime Bat Walkover (DBW)

- 2.4 A survey to assess the suitability of habitats for bats to roost, commute and forage within and adjacent to the site (where accessible). Habitat suitability was assessed as per Table 1 below.

Preliminary Roost Assessment (PRA)

- 2.5 This survey consisted of a detailed search of the interior and exterior of the building looking for bats and/or evidence of bats including droppings (on walls and windowsills and in roof and loft spaces), rub or scratch marks, staining at potential roosts and exit holes, live or dead bats and features, such as raised or missing tiles, potentially suitable for use by roosting bats. Binoculars, an endoscope, a ladder and a high-powered torch were used as required.
- 2.6 Buildings are classified in terms of their suitability for use by roosting bats (see Table 2) and in accordance with the Bat Conservation Trust's Bat Survey Guidelines².
- 2.7 Classification was dependent on a number of factors including:
 - Bats and/or signs of bats
 - External and internal features potentially suitable for use by roosting bats (e.g. raised or missing tiles, gaps behind fascia boards)
 - Setting
 - Night time light levels
 - Disturbance levels
 - Proximity of suitable foraging habitat and flight-paths (e.g. ponds, streams, woodland, large gardens, hedgerows)

Surveyor details

- 2.8 The survey was undertaken by Giles Sutton MCIEEM CEnv (director) and Cherry Leung (ecologist) of GS Ecology Ltd. Giles holds a Natural England WML A34 Level 2 bat survey licence, is registered to use Natural England's Bat Mitigation Class Licence WML-CL21, is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and is a Chartered Environmentalist with more than 20 years' experience as professional ecologist.

¹ <https://magic.defra.gov.uk/>

² Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Bat Conservation Trust

Table 1 – Habitat suitability scale for potential flight-paths and foraging bats

	Potential Suitability	Description
Potential Suitability of potential flight-paths and foraging habitats	High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
	Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
	Low	Habitat that could be used by small numbers of bats as flight-paths 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.
	Negligible³	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
	None [Not suitable]	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).

³Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant.' This category may be used where are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute)

Table 2 – Description of the categories used to assess a building’s bat roost potential and the survey effort required to determine the likely presence or absence of bats

	Roost status	Description	Survey effort required to determine the likely presence or absence of bats
Bat Roost Potential Status	Confirmed	Bats or evidence of bats found.	Surveys would be required to establish the status of the roost. Generally, three dusk emergence surveys between May and September. Optimum period May – August (two surveys should be undertaken during the optimal period). Surveys should be carried out at least three weeks apart.
	High	A structure 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 (For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Three dusk emergence surveys between May and September. Optimum period May – August. Two surveys should be undertaken during the optimal period. Surveys should be carried out at least three weeks apart.
	Moderate	A structure 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, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Two dusk emergence surveys, between May and September (one of the surveys needs to be carried out between May and the end of August). Surveys should be carried out at least three weeks apart.
	Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).	One dusk emergence survey between May and the end of August (but only if features will be affected by the proposals).
	Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No further surveys required.
	None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No further surveys required.

Surveyor details

- 2.9 The survey was undertaken by Giles Sutton MCIEEM CEnv (director) and Cherry Leung (ecologist) of GS Ecology Ltd.
- 2.10 Giles holds a Natural England WML A34 Level 2 bat survey licence, is registered to use Natural England's Bat Mitigation Class Licence WML-CL21, is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and is a Chartered Environmentalist with more than 20 years' experience as professional ecologist.

3.0 Results

Weather conditions

- 3.1 Weather conditions during the survey were 11°C, 8/8ths cloud cover, wind at Beaufort Scale 2 and no rain.

Desk study

Statutory sites of importance for nature conservation and ancient woodland

- 3.2 There are no statutory sites of importance for nature conservation or areas of ancient woodland listed on Natural England's Ancient Woodland Inventory within 500m of the application site.

Natural England licence records

- 3.3 Within 2km of the site there are 15 records of licenses issued by Natural England for works affecting bat roosts on The MAGIC website. These are summarised in Table 3 below.

Table 3 – Summary of Natural England licence records within 2km of the application site

Distance and direction from the application site	Species affected	Breeding site	Year licence was issued
0.2km northwest	Brown long-eared, common pipistrelle	No	2017
0.5km east	Soprano pipistrelle	No	2014
1km east	Common pipistrelle	No	2011
1km west	Common pipistrelle, soprano pipistrelle	No	2014
1.1km west	Common pipistrelle	No	2015
1.2km west	Soprano pipistrelle	Yes	2017
1.3km southeast	Daubenton's	No	2017
1.5km southeast	Common pipistrelle	No	2013
1.5km northwest	Common pipistrelle	No	2014
1.6km west	Common pipistrelle, soprano pipistrelle	No	2015
1.7km northwest	Brown long-eared, soprano pipistrelle	No	2016
1.8km east	Serotine	No	2018
1.9km southeast	Common pipistrelle, soprano pipistrelle	No	2020
1.9km north	Common pipistrelle	No	2018

Surrounding land use

- 3.4 The site is located at the south of the intersection of The Warren and Church Road, two residential roads in Caversham, Reading. Directly to the south is the grounds of Caversham Court, comprising areas of amenity grassland with trees and an allotment.
- 3.5 To the west, north and east are residential properties and their associated gardens with trees.
- 3.6 The river Thames, lined with trees on both sides, flows approximately 100m south of the site. Across the river to the south is the Thames Promenade, a large park.
- 3.7 Approximately 200m west lies the Warren Escarpment, an area of woodland.
- 3.8 The habitats surrounding the site are therefore of "high" suitability for commuting and foraging bats (see Table 1).

Habitats within the site

- 3.9 The application site comprises St Peter's Church, a Grade-II* listed building, and its associated churchyard with mature trees.

Preliminary Bat Roost Assessment

- 3.10 St Peter's Church dates back to 1162 and has been expanded in size and complexity over the centuries. It has a chancel, north and south chapels, north vestry, nave, north and south aisles, south porch and a church tower at the west (see floor plan in Figure 3).
- 3.11 The building has flint walls with Bath stone dressings. It has three main pitched roofs and a subsidiary pitched roof above the north vestry. There is a pitched roof linking the northern pitch and a central pitch (Figure 2 shows the roof plan).
- 3.1 All the pitched roofs are clad with clay tiles. They have corbelled parapet at the gable ends. The rafters protrude through the walls at the eaves.
- 3.2 The western gable end of the northern pitch has clay 'club' hanging tiles.
- 3.3 The west tower (the belfry) has a pyramidal roof clad with tightly fitted clay tiles screened by high parapet walls.
- 3.4 To the north of the bell tower there is a lean-to (used for storage) with a single pitched roof clad with plywood covered in a Sarnafil membrane.

Figure 3 – Floor plan of St Peter's Church



- 3.5 Externally the building has numerous features potentially suitable for use by roosting bats including:
- Gaps under raised tiles on all roof surfaces, in particular on the central and northern pitches (the areas to be re-roofed are in general in better conditions with fewer gaps under the roof tiles).
 - Gaps at the eaves between the rafters and walls

- Missing verge mortar on the southern pitch
- Gaps under the hanging tiles

- 3.6 A description of the inside of the church is provided below:
- 3.7 **The Vestry.** The roof of the vestry has timber exposed timber rafters with plaster in between and no exposed ridge boards. There are gaps between the timber frame and southern end wall potentially suitable for use by roosting bats but these were inspected and found to be blocked by cobwebs.
- 3.8 No bats or signs of bats were found in this room.
- 3.9 **The North Chapel.** The roof of the north chapel has wooden beams, exposed ridge boards and timber roof lining.
- 3.10 Approximately 150 bat droppings were found on the top of a cupboard by the eastern end wall. There are gaps between the wooden roof frame and wall where the bats which deposited these droppings are likely to roost.
- 3.11 **The North Aisle.** The roof of the north aisle has timber exposed rafters and is half-vaulted. There is a small inaccessible void.
- 3.12 No bats or signs of bats were found in this room, although it is regularly cleaned so any bat droppings that may have been present are likely to have been swept away.
- 3.13 **The Nave.** The roof of the nave has timber exposed rafters, timber pointed arches (kingpost and wind brace construction) and vaulted ceiling.
- 3.14 No bats or signs of bats were found in this room, although it is regularly cleaned so any bat droppings that may have been present are likely to have been swept away.
- 3.15 **The South Aisle and South Chapel.** The roof of the south aisle and south chapel has timber exposed rafters and vaulted ceiling.
- 3.16 No bats or signs of bats were found in this room, although it is regularly cleaned so any bat droppings that may have been present are likely to have been swept away.
- 3.17 **The Chancel.** The roof of the chancel has vaulted and painted ceiling comprising timber-framed squares.
- 3.18 No bats or signs of bats were found in this room, although it is regularly cleaned so any bat droppings that may have been present are likely to have been swept away.
- 3.19 **The Storage Room.** The storage room is open to the roof with plastered linings. No bats or signs of bats were found in this room.
- 3.20 **The Kitchen.** This room is located at the base of the bell tower. It has a flat plastered and painted ceiling. No bats or signs of bats were found in this room.
- 3.21 **The Toilet:** This room is located at the base of the bell tower it has a flat plastered and painted ceiling. No bats or signs of bats were found in this room.
- 3.22 **The Bell Tower:** The bell tower has 3 levels, the ground floor (kitchen and toilet) see above, the bell ringing room and the bell room. The bell room is open to the roof with straw lining below the tiles, most of which had fallen out of place. No bats or signs of bats were found in the bell tower.

4.0 Assessment and recommendations

Survey constraints

- 4.1 The survey was carried out at a time of year suitable for undertaking preliminary bat roost assessments, and there were no constraints to the survey.

Roost types

- 4.2 Bats have different types of roost that they use at different times of the year and for different parts of their life cycle. Roost types include:
- Day roosts - a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer. For most common and widespread species Natural England classify these as low conservation significance roosts.
 - Night roosts - a place where bats rest or shelter in the night but are rarely found by day.
 - Feeding roost - a place where individual bats or a few individuals rest or feed during the night but are rarely present during the day. For most common and widespread species Natural England classify these as low conservation significance roosts.
 - Transitional roosts - a place used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation. For most common and widespread species Natural England classify these as low conservation significance roosts.
 - Maternity roost – a roost where females gather to give birth to and raise their young. These are usually the most important roosts for a bat population
 - Hibernation roosts – a roost where bats hibernate over the winter. These are also important roosts for a bat population.

Site status

- 4.3 St Peter's Church hosts roosting bats with bats roosting inside the church in at least one location - confirmed by the presence of bat droppings at the eastern end of the north chapel. The bats in this location are likely to be roosting between the wooden roof timbers and the wall.
- 4.4 Bats may also be roosting elsewhere inside the building but as the building is regularly cleaned - it is understood that this is once per week - any evidence of them is likely to have been removed.
- 4.5 There are also numerous gaps under roof tiles and on wall tops where bats may roost. However, there are fewer gaps under the roof tiles which need to be replaced than on the other roof elevations.
- 4.6 The church is therefore a confirmed roost but the areas to be re-roofed are assessed as having "moderate" potential to host a bat roost (see Table 2).
- 4.7 The re-roofing works will destroy all potential roost features on the roofs to be replaced and if these features were to be used by roosting bats the roost could be disturbed, damaged or destroyed. This would be an illegal act unless a licence was in place to allow works to go ahead lawfully (see below).
- 4.8 As such to determine if, and if so how, bats will be affected by the re-roofing works, further surveys would need to be undertaken. This information would be needed to obtain a licence for derogation from the provisions of The Conservation of Habitats and Species Regulations 2017 for works affecting bats (should surveys show that a licence is required).

Further survey requirements

- 4.9 The Bat Conservation Trust's Bat Survey Guidelines state that to confirm if a building hosts a bat roost, where it has "moderate" potential to host roosting bats (as is the case here), two dusk emergence surveys should be carried out between 1 May and 31 August. If these surveys show that a bat roost is present, then an additional survey would need to be carried out to confirm its status and to inform the bat licence application.
- 4.10 During the survey surveyors equipped with professional ultrasonic bat detectors and night vision aids are stationed around the building so that all potential roosting features can be seen.
- 4.11 The surveys start fifteen minutes before dusk and continue for an hour and a half after sunset.
- 4.12 Surveys need to be spread over the survey season as much as practicable with at least three weeks between surveys and sufficient surveyors to cover all features potentially suitable for use by roosting bats need to be present.
- 4.13 In this case four surveyors would be needed to survey the church.

Legislation

- 4.14 All species of bats receive special protection under UK law and it is a criminal offence under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations), deliberately or recklessly to destroy or damage their roosts, or to disturb, kill or injure them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).
- 4.15 In order to obtain such a licence, the SNCO must apply the requirements of the Regulations and, in particular, the three tests set out in sub-paragraphs 55(2)(e), (9)(a) and (9)(b). These are as follows:
 - (1) Regulation 55(2)(e) states that a licence can be granted for the purposes 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".
 - (2) Regulation 55(9)(a) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".
 - (3) Regulation 55(9)(b) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

The licensing process

- 4.16 If a building hosts a bat roost and the roost will be affected by the works, a licence and for development works affecting bats (i.e. for derogation from the provisions of the Habitat Regulations) needs to be obtained before works that could affect the roost begin. This involves submitting a licence application to Natural England with a detailed mitigation plan informed by surveys undertaken in accordance with national guidelines. Natural England takes 30 working days to process a licence application (although for low conservation status roosts it is possible to register sites under the low impact class licence which takes up to three weeks).

Mitigation

- 4.17 To comply wildlife legislation, it will be necessary to ensure that following works the “favourable conservation status” of bats will be maintained. This means that if a building does host a bat roost, and if this will be affected, lost or made unsuitable for use by bats, then appropriate mitigation (including a replacement roost) needs to be provided.
- 4.18 The type of mitigation required will depend on the species of bat using the roost and the status of the roost. However, it normally comprises the provision of bat boxes, bricks or tiles. In this case it will almost certainly be possible to retain gaps below tiles which allow access.
- 4.19 If the church is found to host a maternity roost - and this is affected by the proposals - works which could affect the roost will need to be undertaken outside of the period when bats have young (which is considered by Natural England to be May until the end of September).
- 4.20 Mitigation for the loss of other roosts (should they be present) will comprise the removal of tiles being supervised by a licensed bat ecologist who will capture any bats and relocate them and the provision of new bat roosting features under roof tiles. There would be no restrictions on timings for works affecting other roost types (except hibernation roosts).
- 4.21 The new roof lining will need to either be bitumen felt or a bat safe breathable membrane such as Batsafe TLX (see <https://tlxinsulation.co.uk/tlx-batsafe/>) as other breathable membranes can harm bats and are not permitted for use in a bat roost.

5.0 Summary

- 5.1 St Peter's Church hosts roosting bats with bats roosting inside the church in at least one location (at the eastern end of the north chapel).
- 5.2 There are also numerous gaps under roof tiles and on wall taps where bats may roost.
- 5.3 The re-roofing works will destroy any potential roost features on these roofs and if these features were to be used by roosting bats the roost could be disturbed, damaged or destroyed. This would be an illegal act (should surveys show that a licence is required) unless a licence for derogation from the provisions of The Conservation of Habitats and Species Regulations 2017 had been obtained.
- 5.4 As such to determine if (and how) bats will be affected by works further surveys would need to be undertaken. This would comprise two dusk emergence surveys between 1 May and 31 August - with an additional survey to confirm the status of the roost should a bat roost be found.

Appendix 1 - Photographs

Photos 1 and 2– St Peter's Church viewed from the northeast and southwest



Photos 3 and 4 – The south face of the southern pitch (snowguards have been installed to prevent the falling of tiles) and examples of gaps under raised tiles



Photos 5 and 6 - The north face of the vestry roof and examples of gaps under raised tiles



Photo 7 – Gap between the roof overhang and flint wall on the southern elevation, and Photo 8 – The roof viewed from the bell tower [from left to right: vestry, northern pitch, central pitch and southern pitch]



Photo 5 – Inside the vestry, and Photo 6 – Gap between the timber frame and wall in the vestry blocked by cobwebs



Photos 7 and 8– Bat droppings found inside the north chapel and gap between the timber frame and the eastern end wall



Photo 9 – Inside the nave, and Photo 10 – Inside the storage room



Appendix 2 – Bat ecology and conservation status

Background

Bats are the only true flying mammals and belong to their own taxonomic group, the *Chiroptera*. Worldwide there are almost 1,000 species, with 16 in the UK. All species in the UK are insectivorous. They have a highly sophisticated echolocation system that allows them to avoid obstacles and catch invertebrates, either in flight or by picking them off water, the ground or foliage.

Bat species in the UK

There are 16 species of bat that are known to exist in the UK mainland, with a further two - the greater mouse eared bat *Myotis myotis*, and the parti-coloured bat *Vespertilio murinus* - that are thought to occur as rare migrants or to have small populations in the UK. Bats in the UK belong to one of two taxonomic families, the Rhinolophidae (horseshoe bats) and the Vespertilionidae (all other UK bats).

Bat Conservation Status

Bat populations have undergone a significant decline in the past sixty years. For example, estimates from the National Bat Colony Survey suggest that the UK pipistrelle population (one of our commonest bat species), declined by approximately 70% between 1978 and 1993. Factors contributing to this decline include:

- Loss of, and damage to, roosting sites, including buildings, trees, and underground structures (mines, tunnels, ice-houses, cellars, etc).
- Loss and fragmentation of suitable insect-rich feeding habitats such as wetlands and deciduous woodland.
- Reduction in the abundance and diversity of insect prey due to intensive agriculture, particularly over-grazing and the use of pesticides.
- Loss of linear features such as tree-lines and hedgerows, depriving bats of commuting routes between roosts and feeding areas.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

Roosts

Bats use a variety of roosts of different types including trees, buildings, caves, mines and other structures. Most species are colonial and roost in groups. This can make populations particularly vulnerable to loss of roosts as the loss of a single roost may affect the whole population. Some species hang in obvious locations, such as the timbers near to the apex of a roof, others roost in cracks and crevices, such as the gaps under tiles, and as such can be very difficult to locate.

During the winter (November to February), when there is a reduction in insect numbers, bats hibernate to conserve energy. They prefer sites with a constant low temperature and a high relative humidity. On mild winter's nights, bats may wake up and feed. However, bats are particularly vulnerable to disturbance at this time of year, as flying in winter uses up large quantities of energy that cannot easily be replaced.

In the spring, after emerging from hibernation, bats often move from site to site and may congregate in small groups. Female bats gather together in the summer (approximately May to August dependant on

species) in maternity roosts. Once the young have stopped suckling, and the baby is independent, bats tend to disperse and use other roosts. Maternity roosts are particularly vulnerable to disturbance, as bats may have come from a wide geographical area, and have a strong tradition of returning to the same roost year after year.

During the late summer and early autumn males occupy mating roosts which are visited by several females. After mating some species gather together at swarming sites to fatten up prior to hibernation.

Habitat associations

In addition to roosts, bats also need foraging habitats to find suitable food resources, and commuting routes to get to these areas. As would be expected, the highest numbers of bats are found in areas with abundant invertebrates. Some species specialise in catching small invertebrates in flight, whilst others specialise in catching larger invertebrates such as moths and beetles. The distances that bats travel to foraging areas varies between species; records have shown some greater horseshoe bats travel up to 22km to forage, although many species will typically feed within 1km of a roost.

Bats, especially the smaller species, tend to follow linear features (such as hedgerows and tree lines) to their foraging habitats and will often not cross open spaces. A gap of 10m in a linear feature will often not be crossed by bats, and it is important that developments do not create such gaps if linear features are used by bats.

Appendix 3 – About GS Ecology

Established in 2009, GS Ecology is an independent ecological consultancy in Berkshire. We carry-out surveys and ecological consultancy services for public and private sector clients including in Berkshire, Oxfordshire and Hampshire, London and the south of England. We can advise you on cost effective sustainable solutions for your project, whether it be a bat survey to inform a planning application, the ecology chapter of an Environmental Statement or a Woodland Management Plan.

Our work is undertaken by experienced and qualified ecologists, who are members of the Chartered Institute of Ecology and Environmental Managers. Our services include:

- Ecology surveying and reporting to inform planning applications, e.g.
 - Preliminary Ecological Appraisal
 - Extended Phase 1 Habitat Survey
 - Protected species surveys, e.g. badgers, dormouse, great crested newts
 - Bat surveys in Oxfordshire, Berkshire, Hampshire, London and Southern England
- BREEAM ecology assessments – to demonstrate the sustainability of a new building
- Protected species licensing such as bat and great crested newt licences for development sites after planning permission has been obtained
- Providing advice to land managers and writing ecological management plans, such as woodland management plans and farm environmental plans for England woodland Grant Scheme and Environmental Stewardship applications
- Providing ecology advice to Local Authorities and Local Planning Authorities