

BAT SURVEY OF:

12 SOUTH DRIVE
SONNING
READING
RG4 6GB

Client: Sayeeda Omer

Our reference: ECO4092

Report date: 15 July 2026

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1.0 Introduction

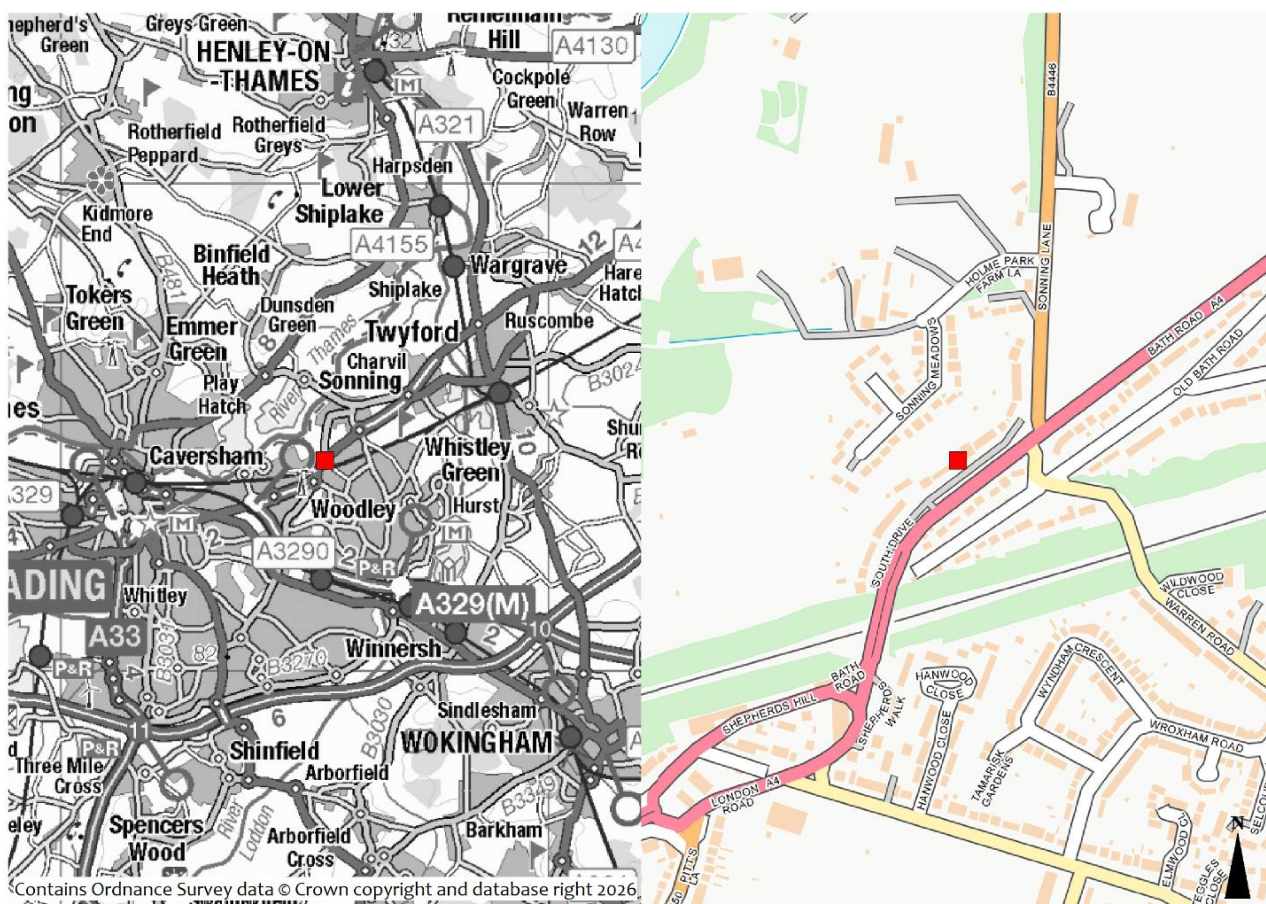
Survey and reporting

- 1.1 This report details the results of a Bat Survey of 12 South Drive, Sonning, Reading, RG4 6GB, undertaken to inform a planning application for the site.
- 1.2 The survey comprised three dusk emergence surveys carried out between May and July 2026.

Application site

- 1.3 The application site is located midway along South Drive, a residential cul-de-sac between Sonning and Woodley (Grid reference SU7539774328, Figure 1).
- 1.4 It comprises a detached one and two-storey house and its adjoined single garage, driveway, and, front and rear gardens.

Figure 1 – Site location



Background and proposed works

- 1.5 The proposals are for the:
“Erection of a two storey front and side extension, part- single storey part two storey rear extension, single storey rear extension with pitched roof, erection of terrace, garage conversion to create habitable accommodation plus changes to fenestration and erection of front gates”
- 1.6 This will involve the removal of the hanging tiles on the front gable, removal of the decorative timber frames across all the elevations, and, removal of the chimney stacks.

- 1.7 To inform the application a Preliminary Roost Assessment was carried out by John Wenman Ecological Consultancy on 1 and 20 April 2026 (see “Preliminary Roost Assessment” report dated April 2026).
- 1.8 The report states:
- “The connected private gardens and linear trees in the suburban setting provides continuous habitat that could be used as bat flight paths and foraging habitat, connecting to additional high-quality foraging habitats in the nearby area, for any bat(s) roosting in the property. No evidence of roosting bats was found externally or internally during the building inspection and the absence of bat droppings indicates that primarily void-dwelling species, such as long-eared bats (Plecotus spp.), are unlikely to be present. Potential crevice roost sites that would provide sufficient space, shelter, protection and conditions for use by individual crevice-dwelling bats such as pipistrelle bats (Pipistrellus spp.) were found throughout the property, including gaps under uneven roof tiles, missing verge and ridge mortar, gaps under the gable hanging tiles and gaps between the timber overhanging soffits and brickwork. The house is therefore considered to be of moderate potential suitability for roosting bats.”*
- And
- “A minimum of two dusk emergence survey visits should be undertaken in the period of May to September, with at least one of the surveys between May and August; the survey visits should be spaced at least three weeks apart. If roosting bats are present, the survey visit enable the roost characterisation necessary to inform an impact assessment and mitigation strategy”*
- 1.9 This report provides the results of the three dusk emergence surveys of the main house at 12 South Drive - carried out by GS Ecology Ltd in 2026 - only.
- 1.10 Please refer to the John Wenman Ecological Consultancy Preliminary Roost Assessment Report for descriptions of the buildings and other habitats on site.
- 1.11 [NB. During the first dusk emergence survey carried out by GS Ecology Ltd in May 2026, three bats emerged from the house and therefore a total of three dusk emergence surveys were undertaken to determine the status of the roosts (in accordance with Bat Conservation Trust’s Bat Survey Guidelines).]

2.0 Methodology

Dusk emergence survey

- 2.1 Three dusk emergence surveys of the house were carried out on 19 May, 17 June, and 09 July 2026. Three surveyors were present during the survey. Surveyors were equipped with professional ultrasonic bat detectors and bat calls were recorded to facilitate bat species identification with specialist software.
- 2.2 Night vision aids (NVAs) were also stationed around the building, so that all potential roosting features could be seen. Footage from the NVAs was reviewed the following day on desktop PCs using specialist software with the ability to motion track, zoom in and watch footage in slow motion.
- 2.3 The dusk surveys started 15 minutes before sunset and continued until one and a half hours after sunset.
- 2.4 The surveys were carried out in accordance with the Bat Conservation Trust's Bat Survey Guidelines¹. Timings, weather, and survey results are given in Appendix 1.

Surveyor details

- 2.5 The surveys were undertaken by Ryan Davies ACIEEM, Myriam El Harouchy MCIEEM, Cherry Leung Qualifying member of CIEEM, Chris Lannon, Chris Hoadley, Matthew Stephenson and Zoe Maidment of GS Ecology Ltd.
- 2.6 Ryan holds a Natural England WML A34 Level 2 bat survey licence and is an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM) with more than 10 years' experience as a professional ecologist.
- 2.7 All others are licensed bat workers and/or experienced bat surveyors.

¹ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Bat Conservation Trust

3.0 Results

Survey 1 – 19 May 2026

- 3.1 During the first dusk emergence survey, carried out on 19 May 2026, 68 bat passes were recorded from at least 7 different species: Soprano pipistrelle (35 passes), common pipistrelle (14 passes), brown long-eared bat (12 passes), bats from the *Myotis* genus (3 passes), noctule (2 passes), Leisler's Bat (1 pass) and serotine (1 pass).
- 3.2 Bats emerged from the following locations during the survey:
- At 21:02, a single common pipistrelle bat emerged from behind the timber frame on the front elevation [Roost A – see Figure 2]
 - At 21:08, a single soprano pipistrelle bat emerged from under hanging tiles on the southern gable end [Roost B]
 - At 21:34, a single common pipistrelle bat emerged from behind the timber frame on the front elevation [Roost A]

Survey 2 – 17 June 2026

- 3.3 During the second dusk emergence survey, carried out on 17 June 2026, 89 bat passes were recorded from at least 7 different species: Soprano pipistrelle (44 passes), common pipistrelle (30 passes), bats from the *Myotis* genus (6 passes), serotine (4 passes), noctule (3 passes), brown long-eared bat (1 pass), and *Nathusius* pipistrelle (1 pass).
- 3.4 No bats emerged from, or went to roost in, the building during the survey.

Survey 3 - 09 July 2026

- 3.5 During the third dusk emergence survey, carried out on 09 July 2026, 101 bat passes were recorded from at least 6 different species: soprano pipistrelle (61 passes), common pipistrelle (25 passes), serotine (7 passes), bats from the *Myotis* genus (4 passes), noctule (3 passes) and brown long-eared bat (1 pass).
- 3.6 No bats emerged from, or went to roost in, the building during the survey.

Figure 2 – Locations of bat roosts at 12 South Drive



4.0 Assessment

Survey constraints

- 4.1 The surveys were carried out at a time of year suitable for undertaking dusk emergence surveys, and there were no constraints to the survey.

Site status

- 4.2 12 South Drive hosts two small bat roosts - a common pipistrelle day roost (used by a maximum count of two bats during any one survey) and a soprano pipistrelle day roost (used by a maximum count one bat).
- 4.3 Figure 2 (above) shows the approximate locations of the bat roosts. However, the location of these day roosts may be transient, and it is possible that bats will change roost location to utilise the other features present around the building - depending on the time of year and environmental factors such as temperature.
- 4.4 Common pipistrelle and soprano pipistrelle bats are classified as “*Widespread all geographies*” in all areas of the UK (see Table 3.1 on Page 30 of the UK Bat Mitigation Guidelines²).
- 4.5 The day roosts of these species are of “site” importance (see Table 3.2 on Page 33 of the UK Bat Mitigation Guidelines).
- 4.6 Both bat roosts will be lost when the house is extended. As such, a licence from Natural England for development works affecting bats, will need to be obtained before the works commence.

Lighting

- 4.7 The habitats surrounding the main house, and, across the gardens are likely to be of importance for commuting and foraging bats – bat activity was high during all three dusk surveys. Care should therefore be taken to ensure that any new lighting does not illuminate these areas.
- 4.8 Appendix 2 provides further information on bat ecology and legislation.

Further survey requirements

- 4.9 Three dusk emergence surveys of 12 South Drive were undertaken over the bat survey season and in accordance with The Bat Conservation Trust’s Bat Survey Guidelines. There are therefore no further survey requirements.
- 4.10 However, if works to the building haven’t commenced by May 2028, an updated bat survey may need to be carried out in order to inform a Natural England licence application (Natural England’s advice is that a licence should be informed by information from the current or most recent bat-active season).

Mitigation

- 4.11 In order to comply with planning policy and wildlife legislation (see sections below) it will be necessary to ensure that following development the “favourable conservation status” of bats will be maintained (see sections 4.4 & 4.5 above).
- 4.12 The following mitigation strategy would meet the requirements detailed above:

² Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1*. Chartered Institute of Ecology and Environmental Management, Ampfield.

Toolbox talk

- (1) Prior to the commencement of works a “tool box talk” will be given to contractors by the licensed bat ecologist. The talk will: explain that the building hosts two bat roosts; explain the relevant legislation relating to bats; detail the measures that will be used to protect bats; agree good working practices; and explain what should be done if bats are encountered during (or after) the works.

New roosting provisions (to ensure that the long term conservation status of bats is maintained)

- (1) Bat boxes - to receive bats found during works: Two Schwegler 2f bat boxes (see [2f-schwegler-bat-box-general-purpose](#) or a bat box constructed in accordance with Bat Conservation Trust guidelines) will be installed by the Ecological Clerk of Works (ECoW) on suitable trees in the rear garden prior to the commencement of works. This will be used to receive any bats captured during the works but will remain in place and therefore be available to bats after the works.
- (2) New roosting provisions - to be provided as long-term replacement for the loss of the two small bat roosts. This will be in the form of four bat roof line access tiles (see Figure 3) to be installed in the locations shown in Figure 4.
- (3) All new roof lining is to be bitumen 1F type roofing felt, or a breathable membrane that has passed a snagging propensity test³, as other breathable membranes have been found to kill bats.

Working method statement (to ensure that bats are not harmed during works)

- (4) All works with the potential to harm bats (removal of: hanging tiles, decorative timber frames, roof tiles, roof timbers and lining) will be overseen by a Natural England bat licence holder acting as an ECoW.
- (5) The ECoW will oversee the careful dismantling of all features suitable for use by roosting. Any bats are found will be caught by hand or using a hand-held net and moved to the bat boxes that will have been installed on a suitable tree in the rear garden (see above). The entrance to the box will be temporarily blocked with a cloth which will be removed at dusk.
- (6) Once all features potentially suitable for use by roosting bats have been removed contractors will be allowed to continue the works unimpeded.

Ongoing habitat management (to ensure that the roosts remain suitable for use by roosting bats)

- (7) New roost access points will not be illuminated, and care will be taken to ensure that exterior lighting does not illuminate roost access points or large parts of the building. Elsewhere, if security lighting is installed it will be directional low lux and/or triggered by motion detection devices located below (human) head height.

³ A snagging propensity test checks that the membrane can stand the repeated snagging actions of roosting bats. To pass, a membrane must show no change in the average number of loops per cm² as rotations are increased from 0 to 1000. See <https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence#full-publication-update-history:-:text=Use%20of%20safe%20roofing%20membranes>

Figure 3 – Bat tile specifications

A preformed clay tile or a formed lead tile is to be placed on the roof line. This will allow crevice-dwelling bats (e.g. common pipistrelle) access between the roof tiles and the felt lining (which must be traditional type 1F bitumen felt throughout)

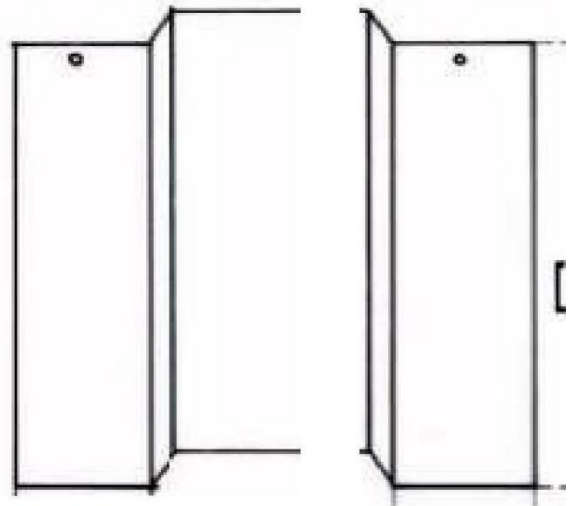
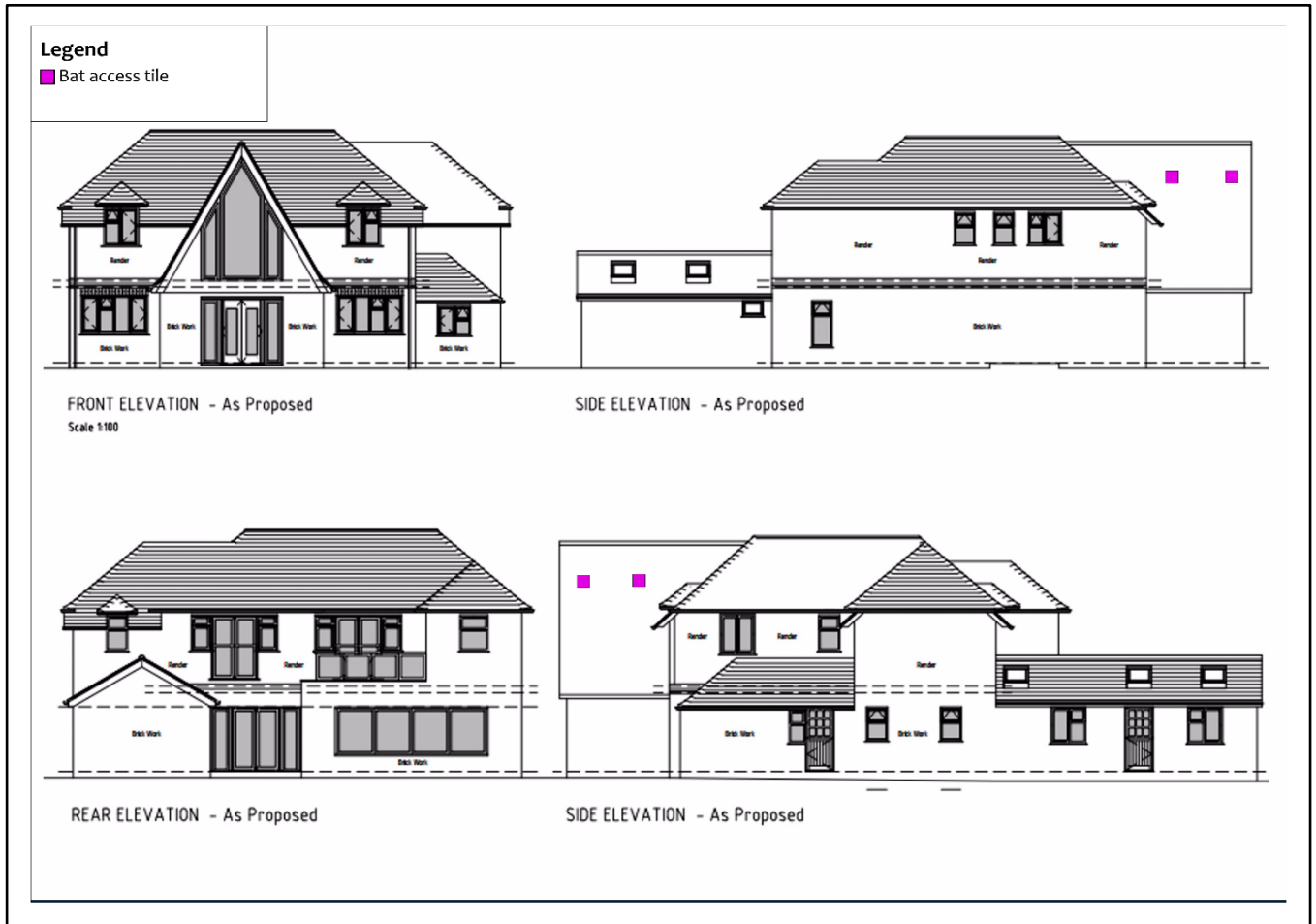


Figure 4 – Proposed elevations showing locations of bat mitigation measures



Legislation

- 4.13 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).
- 4.14 In issue 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.”

Consideration of the three tests of The Habitats Regulations

- 4.15 Planning Authorities have statutory duties under The Habitat Regulations. The Planning Authority needs to be satisfied that a licence for development works affecting bats is likely to be granted by Natural England and in order to be satisfied that this is the case they will need to consider whether the development meets the tests of The Habitat Regulations⁴.
- 4.16 It is considered that, as long as the mitigation plan such given in Section 4.12 is implemented, the proposed works would pass the three tests of The Habitat Regulations, and as such receive from Natural England a licence, because:
- (1) The development is for an imperative reason of overriding public interest of an economic nature as the development will contribute to a social and economic need of the local community for better housing (this is assuming that it is in compliance with other planning policy which is outside the remit of this report) - therefore Regulation 55(2)(e) can be met.
 - (2) There is no satisfactory alternative to the development as without carrying out the works the aforementioned need would not be met - therefore Regulation 55(9)(a) can be met
 - (3) Appropriate mitigation can be provided which will ensure that there will not be a detrimental impact on the favourable conservation status of the bat species concerned (see Section 4.12 above) - therefore Regulation 55(9)(b) can be met
- 4.17 The Local Planning Authority can therefore be confident that, if they were to permit the development, a licence for development works affecting bats would be obtained from Natural England.

The licensing process

- 4.18 Since the site hosts two small bat roosts, both of which will be lost as a result of the proposals, a licence for development works affecting bats (i.e., for derogation from the provisions of the Habitat Regulations) will need to be obtained before roofing works commence.
- 4.19 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 up to 30 working days to process a licence application.
- 4.20 Because the licensing process is separate and distinct from the planning system Natural England will only register the licence application after planning permission or listed building consent has been obtained and any pre-commencement wildlife related planning conditions have been discharged.
- 4.21 In this case, because the roosts are of low conservation status, the site could also be registered under Class Licence WML-CL21, which is “to permit activities resulting in disturbance / capture of bats and/or damage/destruction of bat roosts of low conservation significance only”. To be registered under this licence a “Registered Ecological Consultant” (a professional ecological consultant who has met standards set by Natural England and been successfully registered to use the licence at registered sites) submits licence forms to Natural England. The site is then registered by Natural England under the licence and works can commence. It usually takes no more than three weeks for a site to be registered.

⁴ The courts have considered the application of a planning authority's duty under the Habitat Regulations (and therefore the Habitat Directive) in the cases of Woolley vs Cheshire Borough Council (2009) and Morge vs Hampshire County Council (2010). In the Morge vs Hampshire County Council case the supreme court has ruled that it cannot see why planning permission should not be granted unless the proposed development:

- Would be likely to offend the prohibitions in Article 12(1) and
- Would be unlikely to be licensed as a derogation from those provisions

Planning policy

- 4.22 Paragraphs 98 and 99 of the government Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within The Planning System (referred to in the 2021 NPPF) reads:

“98) 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. Local authorities should consult Natural England before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species’ protection provisions affecting the site concerned.

99) It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted. In appropriate circumstances the permission may also impose a condition preventing the development from proceeding without the prior acquisition of a licence under the procedure set out in section C below. “

- 4.23 In this case, it has been established that 12 South Drive hosts two small bat roosts - a common pipistrelle day roost and a soprano pipistrelle day roost - which will be lost when the building is extended.
- 4.24 Section 4.12 above sets out a mitigation strategy to ensure that the favourable conservation status of these bat species will be maintained and Sections 4.15-4.17 detail how the proposals meet the three tests of The Habitat Regulations.
- 4.25 As such, if a mitigation strategy such as that given above is implemented, and subject to imposing a condition preventing the development from proceeding without the prior acquisition of a licence, the proposals would comply with the above (and other wildlife related) planning policy.

5.0 Summary

- 5.1 12 South Drive hosts two small bat roosts - a common pipistrelle day roost and a soprano pipistrelle day roost - which will be lost when the building is extended. As such, works to extend the house could not legally commence until a licence for development works affecting bats has been obtained from Natural England.
- 5.2 This report includes a mitigation strategy, comprising the provision of tree-mounted bat boxes and integrated bat tiles, and, the careful removal of the features used by roosting bats, that will ensure that bats are not harmed and there will not be a detrimental impact on the favourable conservation status of bats.
- 5.3 As such, subject to imposing a condition preventing works to the building from proceeding without the prior acquisition of a licence, the proposals would comply with planning policy.

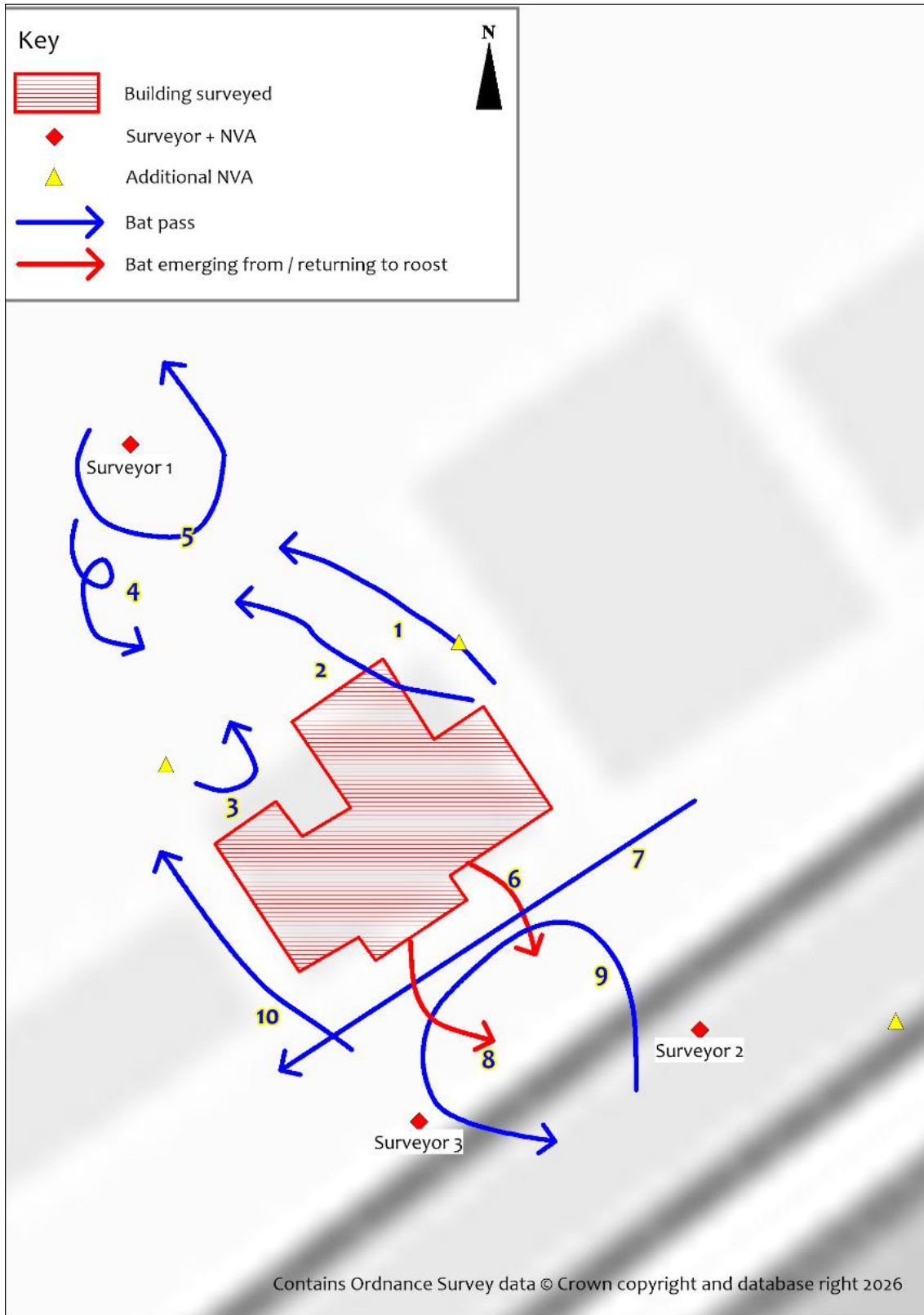
Appendix 1 - Bat dusk emergence survey results

Survey 1- 19 May 2026

Date	19/05/2026	Weather	Start	End
Sunset time	20:55	Temperature (Celsius)	15	14
Start time	20:40	Cloud cover (8ths)	4	7
End time	22:25	Wind (Beaufort scale)	4	4
		Rain	None	None
Surveyor 1	CL	Surveyor 2	MS	
Bat detector	EM Touch	Bat detector	EM Touch	
Surveyor 3	Chris H			
Bat detector	EM Touch			

Surveyor	Time	Species	Number of bats	Map ID	Notes
1	20:58	Soprano Pipistrelle	1	1	Commuting
1	21:09	Soprano Pipistrelle	1	1	Commuting
1	21:10	Soprano Pipistrelle	1	N/A	Not seen
1	21:11	Soprano Pipistrelle	1	1	Commuting
1	21:12	Soprano Pipistrelle	1	1	Commuting
1	21:12	Common Pipistrelle	1	2	Commuting
1	21:14	Noctule	1	N/A	Not seen
1	21:15	Soprano Pipistrelle	1	N/A	Not seen
1, 2	21:18	Soprano Pipistrelle	1	N/A	Not seen
1, 2, 3	21:19	Noctule	1	N/A	Not seen
1	21:21	Brown Long-eared Bat	1	N/A	Not seen
1	21:22	Soprano Pipistrelle	1	N/A	Not seen
1	21:22	Common Pipistrelle	1	1	Foraging
1	21:22	Soprano Pipistrelle	1	2	Foraging
1	21:23	Brown Long-eared Bat	1	N/A	Not seen
1	21:24	Soprano Pipistrelle	1	3	Foraging
1	21:26	Soprano Pipistrelle	1	4	Foraging
1, 3	21:27	Soprano Pipistrelle	1	1	Foraging
1	21:29	Soprano Pipistrelle	1	N/A	Not seen
1	21:31	Brown Long-eared Bat	1	N/A	Not seen
1	21:34	Brown Long-eared Bat	1	N/A	Not seen
1	21:36	Soprano Pipistrelle	1	3	Foraging
1	21:37	Brown Long-eared Bat	1	N/A	Not seen
1	21:43	Brown Long-eared Bat	1	N/A	Not seen
1	21:44	Brown Long-eared Bat	1	N/A	Not seen
1	21:45	Brown Long-eared Bat	1	5	Foraging
1	21:46	Brown Long-eared Bat	1	5	Foraging
1	21:48	Brown Long-eared Bat	1	N/A	Not seen
1	21:55	Soprano Pipistrelle	1	N/A	Not seen
1	22:01	Soprano Pipistrelle	1	N/A	Not seen
1	22:02	Myotis spp.	1	N/A	Not seen
1	22:10	Leisler's Bat	1	N/A	Not seen
1, 3	22:24	Soprano Pipistrelle	1	N/A	Not seen
2	21:01	Soprano Pipistrelle	1	N/A	Not seen
2	21:02	Common Pipistrelle	1	6	Emerged from behind timber frame
2, 3	21:05	Soprano Pipistrelle	1	7	Commuting
2	21:06	Common Pipistrelle	1	N/A	Not seen
2	21:08	Soprano Pipistrelle	1	8	Emerged from under hanging tiles at the gable end
2, 3	21:09	Soprano Pipistrelle	1	N/A	Not seen

Surveyor	Time	Species	Number of bats	Map ID	Notes
2	21:10	Soprano Pipistrelle	1	9	Foraging
2	21:11	Soprano Pipistrelle	1	9	Foraging
2	21:12	Soprano Pipistrelle	2	1 + 9	Foraging
2	21:14	Soprano Pipistrelle	1	1 + 9	Foraging
2	21:15	Common Pipistrelle	1	7	Commuting
2, 3	21:19	Soprano Pipistrelle	1	7	Commuting
2	21:20	Common Pipistrelle	1	N/A	Not seen
2	21:21-21:22	Soprano Pipistrelle	1	7	Commuting
2	21:22	Common Pipistrelle	1	9	Foraging
2, 3	21:24	Soprano Pipistrelle	1	9	Foraging
2, 3	21:25	Serotine	1	N/A	Not seen
2	21:26	Common Pipistrelle	1	N/A	Not seen
2	21:31	Soprano Pipistrelle	1	N/A	Not seen
2, 3	21:34	Soprano Pipistrelle	1	N/A	Not seen
2	21:34	Common Pipistrelle	1	6	Emerged from behind timber frame
2, 3	21:35	Soprano Pipistrelle	1	9	Foraging
2	21:46	Brown Long-eared Bat	1	N/A	Not seen
2, 3	21:57	Common Pipistrelle	1	N/A	Not seen
2, 3	22:09	Myotis spp.	1	N/A	Not seen
2	22:10	Brown Long-eared Bat	1	N/A	Not seen
2	22:15	Myotis spp.	1	N/A	Not seen
3	21:08	Common Pipistrelle	1	N/A	Not seen
3	21:12	Common Pipistrelle	1	1	Foraging
3	21:13	Common Pipistrelle	1	N/A	Not seen
3	21:15	Soprano Pipistrelle	1	10	Foraging
3	21:22	Common Pipistrelle	1	10	Foraging
3	21:31	Soprano Pipistrelle	1	1	Foraging
3	21:41	Soprano Pipistrelle	1	9	Foraging



Infrared images from the darkest point of survey (all taken on Nightfox Whisker)

Surveyor 1 (3 x NVAs)





Surveyor 2 (2x NVAs)





Surveyor 3

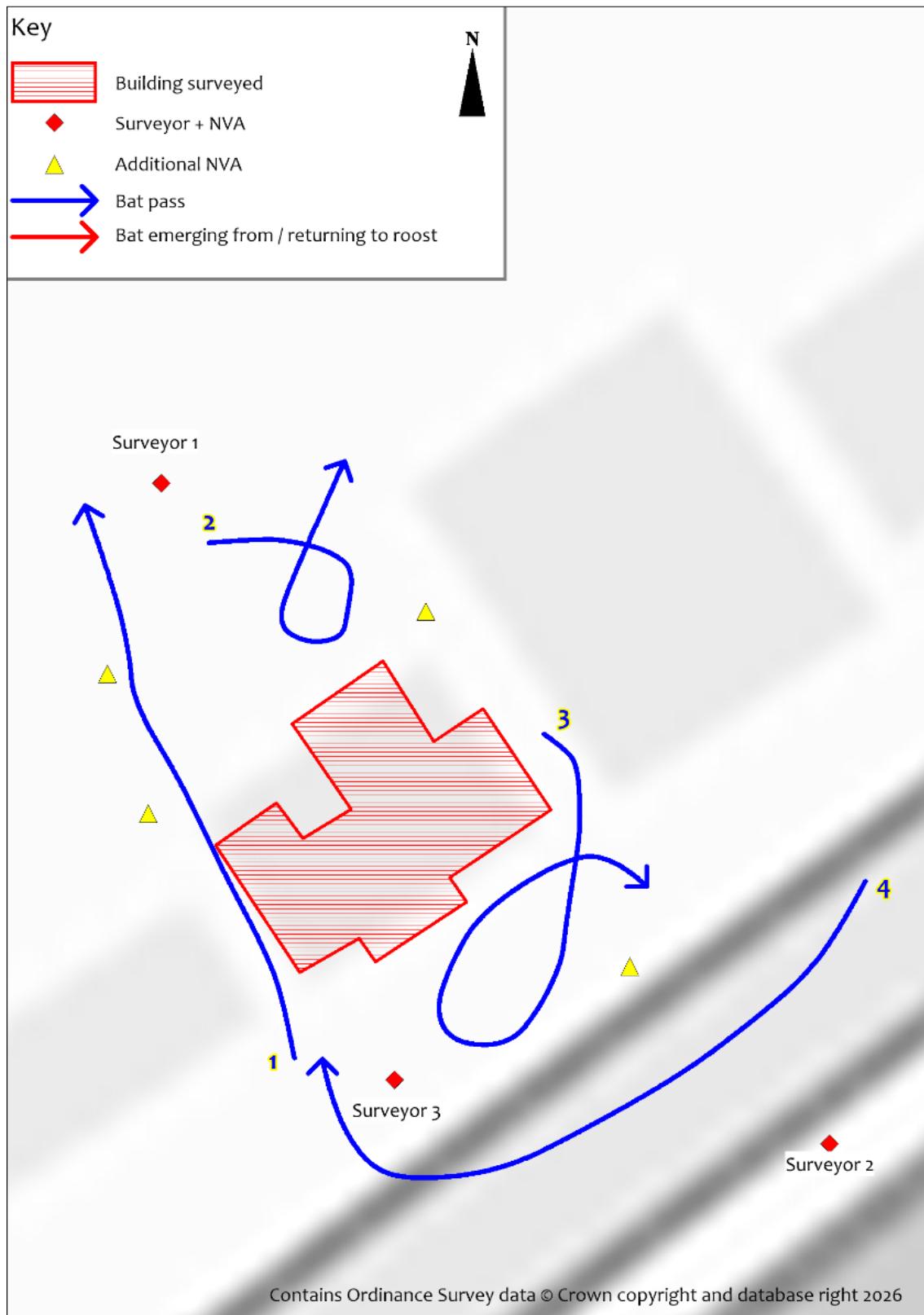


Survey 2 – 17 June 2026

Date	17/06/2026	Weather	Start	End
Sunset time	21:23	Temperature (Celsius)	20	18
Start time	21:08	Cloud cover (8ths)	6	7
End time	22:53	Wind (Beaufort scale)	1	2
		Rain	None	None
Surveyor 1	RD	Surveyor 2	Chris L	
Bat detector	EM Touch	Bat detector	EM Touch	
Surveyor 3	MEH	Surveyor 4		
Bat detector	EM Touch	Bat detector		

Surveyor	Time	Species	Number of bats	Map ID	Notes
1	21:42	Common Pipistrelle	1	1	Commuting
1	21:43	Common Pipistrelle	1	1	Commuting
1	21:45-21:53	Common Pipistrelle	1	2	Foraging constantly
1	21:47	Serotine	1	N/A	Not seen
1	21:52	Serotine	1	N/A	Not seen
1	21:54	Soprano Pipistrelle	1	N/A	Not seen
1	21:54	Serotine	1	N/A	Not seen
1	21:55-22:10	Common Pipistrelle	3	2	Foraging
1	22:02	Soprano Pipistrelle	1	2	Foraging
1	22:11-22:15	Common Pipistrelle	1	2	Foraging
1	22:13	Soprano Pipistrelle	1	2	Foraging
1	22:16-22:18	Common Pipistrelle	1	N/A	Not seen
1	22:19	Soprano Pipistrelle	1	N/A	Not seen
1	22:21	Common Pipistrelle	1	N/A	Not seen
1	22:24	Soprano Pipistrelle	1	N/A	Not seen
1	22:27-22:30	Common Pipistrelle	1	N/A	Not seen, likely foraging nearby
1	22:28	Serotine	1	N/A	Not seen
1	22:31	Soprano Pipistrelle	1	N/A	Not seen
1	22:31	Brown Long-eared Bat	1	N/A	Not seen
1, 3	22:32	Noctule	1	N/A	Not seen
1	22:32-22:35	Common Pipistrelle	1	N/A	Not seen, likely foraging nearby and with social calls
1	22:32	Myotis spp.	1	N/A	Not seen, faint call
1	22:49	Common Pipistrelle	1	N/A	Not seen
1	22:49	Nathusius Pipistrelle	1	N/A	Not seen
2	21:38	Common Pipistrelle	1	N/A	Not seen
2	21:39	Soprano Pipistrelle	1	3	Commuting
2	21:41	Common Pipistrelle	1	N/A	Not seen
2	21:42	Soprano Pipistrelle	1	3	Commuting
2	21:45	Soprano Pipistrelle	1	3	Foraging
2	21:46	Soprano Pipistrelle	1	N/A	Not seen
2	21:47-21:48	Soprano Pipistrelle	2	3	Foraging
2	21:47	Common Pipistrelle	1	3	Commuting
2	21:49	Soprano Pipistrelle	1	3	Foraging
2	21:51	Soprano Pipistrelle	1	N/A	Not seen
2	21:53	Common Pipistrelle	1	N/A	Not seen
2	21:54-21:55	Soprano Pipistrelle	1	N/A	Not seen
2	21:57	Soprano Pipistrelle	2	3	Foraging, with social calls
2	22:00	Soprano Pipistrelle	1	3	Foraging
2	22:03	Soprano Pipistrelle	1	3	Commuting
2	22:05	Soprano Pipistrelle	1	N/A	Not seen
2	22:06	Soprano Pipistrelle	2	3	Foraging
2	22:09	Common Pipistrelle	1	N/A	Not seen
2	22:10	Common Pipistrelle	1	N/A	Not seen

Surveyor	Time	Species	Number of bats	Map ID	Notes
2	22:11	Myotis spp.	1	3	Commuting
2	22:13	Soprano Pipistrelle	1	3	Foraging
2	22:14	Myotis spp.	1	4	Commuting
2	22:17	Common Pipistrelle	1	N/A	Not seen, faint call
2	22:18	Common Pipistrelle	1	N/A	Not seen
2	22:21	Soprano Pipistrelle	1	N/A	Not seen
2	22:24-22:25	Soprano Pipistrelle	1	N/A	Not seen
2	22:26	Myotis spp.	1	N/A	Not seen
2	22:28	Common Pipistrelle	1	N/A	Not seen
2	22:34	Common Pipistrelle	1	N/A	Not seen
2	22:35	Soprano Pipistrelle	1	N/A	Not seen
2	22:37-22:38	Common Pipistrelle	1	N/A	Not seen, faint call
2	22:43	Soprano Pipistrelle	1	N/A	Not seen
2	22:50	Common Pipistrelle	1	N/A	Not seen
3	21:40	Soprano Pipistrelle	1	N/A	Not seen
3	21:42	Soprano Pipistrelle	2	4	Commuting
3	21:44	Soprano Pipistrelle	1	3	Commuting
3	21:47	Common Pipistrelle	1	3+4	Commuting
3	21:48	Soprano Pipistrelle	1	N/A	Not seen
3	21:49	Soprano Pipistrelle	1	4	Foraging
3	21:52	Soprano Pipistrelle	1	4	Commuting
3	21:53	Common Pipistrelle	1	3	Foraging
3	21:54	Soprano Pipistrelle	1	4	Commuting
3	21:55	Soprano Pipistrelle	1	3	Commuting
3	21:57-21:58	Soprano Pipistrelle	2	3	Foraging
3	21:59	Soprano Pipistrelle	1	3	Foraging
3	22:00	Soprano Pipistrelle	1	N/A	Not seen
3	22:01	Soprano Pipistrelle	1	3	Foraging
3	22:02	Noctule	1	N/A	Not seen
3	22:05-22:07	Soprano Pipistrelle	1	4	Foraging
3	22:06	Soprano Pipistrelle	1	3	Commuting
3	22:08-22:53	Soprano Pipistrelle	1	3 + 4	Foraging intermittently
3	22:12	Myotis spp.	1	3	Commuting
3	22:17	Common Pipistrelle	1	N/A	Not seen
3	22:26	Myotis spp.	1	4	Commuting
3	22:28	Common Pipistrelle	1	N/A	Not seen
3	22:33	Common Pipistrelle	1	N/A	Not seen
3	22:37	Noctule	1	N/A	Not seen
3	22:38	Common Pipistrelle	1	N/A	Not seen



Infrared images from the darkest point of survey (all taken on Nightfox Whisker)

Surveyor 1 (4x NVAs)









Survey 3 – 09 July 2026

Date	09/07/2026	Weather	Start	End
Sunset time	21:20	Temperature (Celsius)	29	25
Start time	21:05	Cloud cover (8ths)	1	2
End time	22:50	Wind (Beaufort scale)	1	0
		Rain	None	None
Surveyor 1	RD	Surveyor 2	Chris L	
Bat detector	EM Touch	Bat detector	EM Touch	
Surveyor 3	ZM	Surveyor 4		
Bat detector	EM Touch	Bat detector		

Surveyor	Time	Species	Number of bats	Map ID	Notes
1	21:33	Soprano Pipistrelle	1	N/A	Not seen, faint call
1	21:38	Soprano Pipistrelle	2	1	Commuting
1	21:39	Soprano Pipistrelle	1	1	Commuting
1	21:44-21:59	Common Pipistrelle	1	2	Foraging constantly
1	21:47	Common Pipistrelle	1	3	Commuting
1	21:48	Serotine	1	N/A	Not seen
1	21:48	Common Pipistrelle	1	1	Commuting
1	21:49	Soprano Pipistrelle	1	2	Foraging
1	21:54-21:59	Soprano Pipistrelle	1	2	Foraging
1	21:56	Serotine	1	N/A	Not seen
1	22:00-22:05	Common Pipistrelle	1	2	Foraging
1	22:04	Soprano Pipistrelle	1	3	Commuting
1	22:06	Soprano Pipistrelle	1	2	Foraging
1	22:07	Soprano Pipistrelle	1	1	Commuting
1, 2, 3	22:08	Noctule	1	N/A	Not seen
1	22:08	Soprano Pipistrelle	1	N/A	Not seen
1	22:10	Common Pipistrelle	1	2	Foraging
1	22:10-22:12	Soprano Pipistrelle	1	2	Foraging
1, 3	22:12	Myotis spp.	1	14	Commuting
1	22:13-22:17	Soprano Pipistrelle	1	N/A	Not seen
1	22:15	Serotine	1	N/A	Not seen
1	22:16-22:20	Common Pipistrelle	1	N/A	Not seen
1	22:19	Serotine	1	3	Commuting
1	22:21-22:22	Soprano Pipistrelle	1	N/A	Not seen
1	22:22	Serotine	1	N/A	Not seen
1, 2, 3	22:23	Noctule	1	N/A	Not seen
1	22:24-22:33	Soprano Pipistrelle	1	N/A	Not seen, foraging intermittently
1	22:25	Common Pipistrelle	1	N/A	Not seen
1	22:28	Serotine	1	N/A	Not seen
1, 2, 3	22:32	Noctule	1	N/A	Not seen
1	22:35	Serotine	1	N/A	Not seen
1	22:38	Soprano Pipistrelle	1	N/A	Not seen
1	22:43	Soprano Pipistrelle	1	N/A	Not seen
1	22:49	Brown Long-eared Bat	1	N/A	Not seen
2	21:38	Soprano Pipistrelle	1	4	Commuting
2	21:39	Common Pipistrelle	1	N/A	Not seen
2	21:40	Soprano Pipistrelle	1	5	Commuting
2	21:49	Soprano Pipistrelle	1	N/A	Not seen
2	21:50	Soprano Pipistrelle	1	6	Commuting
2	21:51	Soprano Pipistrelle	2	5	Foraging
2	21:54	Common Pipistrelle	1	N/A	Not seen
2, 3	21:57	Soprano Pipistrelle	1	7	Commuting
2	21:58	Soprano Pipistrelle	1	N/A	Not seen
2	21:59	Soprano Pipistrelle	1	N/A	Not seen

Surveyor	Time	Species	Number of bats	Map ID	Notes
2	22:00	Soprano Pipistrelle	1	4	Foraging
2	22:03	Soprano Pipistrelle	1	N/A	Not seen
2	22:04	Soprano Pipistrelle	1	4	Foraging
2	22:04	Soprano Pipistrelle	1	7	Commuting
2	22:07	Soprano Pipistrelle	1	4 + 5	Foraging
2	22:10	Soprano Pipistrelle	1	N/A	Not seen
2	22:11	Soprano Pipistrelle	1	5	Foraging
2	22:14	Soprano Pipistrelle	1	4	Foraging
2	22:15-22:16	Soprano Pipistrelle	1	4	Foraging
2	22:18	Common Pipistrelle	1	N/A	Not seen
2	22:18	Soprano Pipistrelle	1	N/A	Not seen
2	22:20	Myotis spp.	1	N/A	Not seen
2	22:20	Common Pipistrelle	1	N/A	Not seen
2	22:20	Common Pipistrelle	1	8	Commuting
2	22:21	Soprano Pipistrelle	1	N/A	Not seen
2	22:21	Common Pipistrelle	1	N/A	Not seen
2	22:22	Soprano Pipistrelle	1	4	Foraging
2	22:23	Soprano Pipistrelle	1	8	Foraging
2	22:24	Soprano Pipistrelle	1	N/A	Not seen
2	22:25	Soprano Pipistrelle	1	8	Foraging
2	22:26	Common Pipistrelle	1	N/A	Not seen
2	22:26	Soprano Pipistrelle	1	4	Foraging
2	22:27-22:39	Soprano Pipistrelle	1	N/A	Not seen
2	22:41	Common Pipistrelle	1	N/A	Not seen
3	21:36	Soprano Pipistrelle	1	9	Commuting
3	21:38	Soprano Pipistrelle	1	11	Foraging
3	21:38	Soprano Pipistrelle	1	1	Foraging
3	21:39	Soprano Pipistrelle	1	11	Foraging
3	21:49	Soprano Pipistrelle	1	10 + 11	Foraging
3	21:54	Common Pipistrelle	1	11	Foraging
3	21:58	Common Pipistrelle	1	10	Foraging
3	22:00	Soprano Pipistrelle	1	N/A	Not seen
3	22:03	Soprano Pipistrelle	1	10	Foraging
3	22:05	Soprano Pipistrelle	1	12	Commuting
3	22:05	Common Pipistrelle	1	11	Foraging
3	22:05	Common Pipistrelle	1	N/A	Not seen
3	22:06	Common Pipistrelle	1	13	Commuting
3	22:12	Soprano Pipistrelle	1	N/A	Not seen
3	22:14	Soprano Pipistrelle	2	10	Foraging
3	22:16	Common Pipistrelle	1	11	Commuting
3	22:16	Common Pipistrelle	1	10	Commuting
3	22:17	Common Pipistrelle	1	15	Commuting
3	22:17	Common Pipistrelle	1	N/A	Not seen
3	22:18	Soprano Pipistrelle	1	14	Foraging
3	22:20	Myotis spp.	1	14	Commuting
3	22:20	Soprano Pipistrelle	1	8	Commuting
3	22:22	Soprano Pipistrelle	1	N/A	Not seen
3	22:23	Soprano Pipistrelle	1	N/A	Not seen
3	22:25	Myotis spp.	1	N/A	Not seen
3	22:28	Soprano Pipistrelle	1	15	Commuting
3	22:29	Soprano Pipistrelle	1	14	Commuting
3	22:30	Soprano Pipistrelle	1	N/A	Not seen
3	22:34	Soprano Pipistrelle	1	N/A	Not seen
3	22:44	Common Pipistrelle	1	N/A	Not seen



Infrared images from the darkest point of survey (all taken on Nightfox Whisker)

Surveyor 1 (4x NVAs)









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 - Legislation and planning policy

Planning Authorities have a legal duty to consider biodiversity when assessing planning applications. Where there is a reasonable likelihood that a planning application might affect important protected sites, species or habitats, information on the species, habitat or site likely to be affected, together with an assessment of the impacts of the proposals, will almost certainly be required.

The legal duty for Planning Authorities to have regard to the conservation of biodiversity was introduced in the 2006 Natural Environment and Rural Communities Act (The NERC Act). This act clarified existing commitments with regard to biodiversity, raised the profile of biodiversity and aimed to make the consideration of biodiversity a natural and integral part of policy and decision making.

In addition to the NERC Act there is also national and international biodiversity legislation. This includes legislation in relation to protected species and sites which operates outside of the planning system. Local Authorities and developers have a duty to comply with this legislation.

National planning policy

Paragraph 99 of the Government Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System (this document has not been revoked by the recently published National Planning Policy Framework) states that:

'It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.'

As such, in line with national planning policy, most planning authorities will ask for this information to be provided before a planning decision is made and in many cases before it is registered.

Local planning policy

In addition to national planning policy, most councils have planning policies to protect biodiversity, and to enhance it where practicable within and adjacent to development sites.

European protected species

The United Kingdom hosts a number of European Protected Species (EPS) of animals (table 1) and plants (table 2). These species receive special protection under UK law and it is an offence under the Wildlife and Countryside Act 1981 (as amended) and the European Habitats and Species Directive (92/43/EC), enacted in the UK through The Conservation of Habitats and Species Regulations 2017, to deliberately or recklessly destroy or damage their habitat, or to disturb, kill or injure the species without first having obtained the relevant licence from Natural England.

Planning Authorities have a statutory duty under these regulations to have regard to the requirements of the Habitats Directive and need to be satisfied that the development is likely to receive a licence from Natural England, and therefore comply with the Habitats Directive, before granting planning permission.

Table 1 – European Protected Species of Animal found in the UK

Common name	Scientific name
Bats, Horseshoe (all species)	<i>Rhinolophidae</i>
Bats, Typical (all species)	<i>Vespertilionidae</i>
Butterfly, Large Blue	<i>Maculinea arion</i>
Cat, Wild	<i>Felis silvestris</i>
Dolphins, porpoises and whales (all species)	<i>Cetacea</i>
Dormouse	<i>Muscardinus avellanarius</i>
Frog, Pool	<i>Rana lessonae</i>
Lizard, Sand	<i>Lacerta agilis</i>
Moth, Fisher's Estuarine	<i>Gortyna borellii lunata</i>
Newt, Great Crested (or Warty)	<i>Triturus cristatus</i>
Otter, Common	<i>Lutra lutra</i>
Snail, Lesser Whirlpool Ram's-horn	<i>Anisus vorticulus</i>
Snake, Smooth	<i>Coronella austriaca</i>
Sturgeon	<i>Acipenser sturio</i>
Toad, Natterjack	<i>Bufo calamita</i>
Turtles, Marine	<i>Caretta caretta</i> <i>Chelonia mydas</i> <i>Lepidochelys kempi</i> <i>Eretmochelys imbricata</i> <i>Dermochelys coriacea</i>

Table 2 – European Protected Species of Plant found in the UK

Common name	Scientific name
Dock, Shore	<i>Rumex rupestris</i>
Fern, Killarney	<i>Trichomanes speciosum</i>
Gentian, Early	<i>Gentianella anglica</i>
Lady's-slipper	<i>Cypripedium calceolus</i>
Marshwort, Creeping	<i>Apium repens</i>
Naiad, Slender	<i>Najas flexilis</i>
Orchid, Fen	<i>Liparis loeselii</i>
Plantain, Floating-leaved water	<i>Luronium natans</i>
Saxifrage, Yellow Marsh	<i>Saxifraga hirculus</i>

Nationally protected species

Many species of animal are protected under the 1981 Wildlife and Countryside Act (as amended). 'Full protection' applies to EPS and some non EPS species such as the water vole. This prohibits the intentional killing, injuring or taking (capture. etc); possession; intentional disturbance whilst occupying a 'place used for shelter or protection' and destruction of these places; sale, barter, exchange, transporting for sale and advertising to sell or to buy. Many species, such as common species of reptile and amphibian, are protected from intentional killing and injuring and trading.

Badgers

Badgers and their setts are protected under the 1992 Protection of Badgers Act and the Wildlife and Countryside Act 1981 (as amended). It is illegal to intentionally or recklessly kill, injure or take badgers or to interfere with a badger sett. Interference with a sett includes blocking tunnels, or damaging the sett in any way, and could include blocking a badger pathway if it were to stop badgers entering or leaving a

sett. Penalties for offences can be severe, with fines of up to £5,000 plus up to six months' imprisonment, for each illegal sett interference, badger death or injury.

Work that disturbs badgers occupying a sett is illegal without the appropriate licence from the relevant statutory authority being held. Natural England issue licences for reasons including science, education or conservation, for development such as the building of houses and for investigation of offences against badgers. They also issue licences for the prevention of serious damage to land, crops or other form of property, as well as for agriculture, forestry, drainage operations and prevention of the spread of disease.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), whilst they are actively nesting or roosting. Section 1 of this Act makes it an offence to kill, injure or take any wild bird, and to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built. It is also an offence to take or destroy any wild bird eggs.

In addition, bird species listed under Schedule 1 of the Act receive extra protection. The Act states that 'it is an offence to intentionally or recklessly disturb any wild bird listed in Schedule 1 while it is nest building, or at (or near) a nest containing eggs or young, or disturb the dependent young of such a bird'.

In practice this means that in areas where birds are likely to be nesting works should not be undertaken during the nesting season, which is generally considered to be March to September, although this very much depends on weather conditions, habitats and the species involved. If works cannot be avoided then areas should first be checked for nesting birds. Habitats likely to host nesting birds include trees, hedgerows and dense scrub, buildings, reedbeds and riverine habitats and open areas with tussocky vegetation.

Appendix 4 - 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 in Hampshire, Berkshire, Oxfordshire, London and Southern England
 - Protected species surveys, e.g. badgers, dormouse, great crested newts
 - Bat surveys in Oxfordshire, Berkshire, Hampshire, London and Southern England
- Code for sustainable homes or 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