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Site: Oak Trees, Clandon Road, Send, Surrey GU23 7LA
Client: Scott Gifford



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Summary:

We were appointed by Scott Gifford to undertake an appraisal of Oak Trees, Clandon Road in order to assess the potential ecological constraints to a planning proposal. This appraisal involved the actioning of a series of nocturnal bat activity surveys based on preliminary roost assessments carried out by Arbtech Consulting in April 2023.

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It is proposed to demolish the existing building on site (B1).

During the Preliminary Bat Roost Assessment walkover carried out in April 2023, all buildings underwent full internal and external inspection. Full details are outlined in the Preliminary Roost Assessment Report (Arbtech 2023).

Building B1 was classed as High potential (high level of PRFs found)

Building B2 was classed as Negligible potential

Building B3 was classed as Negligible potential

Building B4 was classed as Negligible potential

Building B5 was classed as Negligible potential

Building B6-B9 were classed as Negligible potential

All UK bat species are legally protected species and they are capable of being material considerations in the planning process. A summary of the legislation protecting bats is included. This section also provides some brief information on the ecology of British bat species.

A series of emergence surveys were carried out commencing on the 10th May 2023 and being repeated on the 25th May and the 15th June for building B1 which required three surveys. With the use of night vision aids and surveyors, B1 was monitored and bats were seen emerging on two occasions.

Building B1 had confirmed emergence from the north side, second storey above the front door during the first survey by surveyor 1. Surveyor 2 also captured an emergence during the first survey from the southeast side of the property. During the second dusk survey on the 25th May, no emergence was seen but there was foraging and commuting activity. During the 3rd survey on the 15th June there was foraging and commuting activity and emergence was captured by the surveyor 2 to the north and south of the property in similar locations to the first survey.

Therefore the building was confirmed as being used opportunistically as a day roost by common pipistrelle bats.

The loss of this non-breeding pipistrelle roost will have a negligible impact upon the local population of the species.

The proposed demolition work would result in the destruction of this roost; therefore a development licence from Natural England is required and the following mitigation is proposed:

Recommendations:

R1: Installation of three woodcrete bat boxes on nearby trees prior to the commencement of works.

R2: A pre-works 'toolbox' talk with site operatives.

R3: Supervision, by a licensed bat worker, of the destruction/disturbance of the confirmed and any high potential bat roosting locations (areas within 5-10m of all roosting locations).

R4: Where roost features are lost, replaced on a like for like basis within the new building.

R5: Installation of two Schwegler 1FR (or similar) bat tubes within the new building.

Should works commence more than 18 months after the nocturnal activity surveys were completed, an update dusk survey will be required.

R6: In accordance with best practice guidance relating to lighting and biodiversity (Miles et al, 2018; Gunnell et al, 2012), any new lighting should be carefully designed to minimise potential disturbance and fragmentation impacts on sensitive receptors, such as bat species.

Consideration could also be made to enhance the site through planting of native shrubs along the site boundaries and installation of a small number of bird boxes on the building; full details of possible enhancements are provided in the report.

*Matt Harmsworth
Lead Consultant
ROAVR Group.*

Note: As a bat roost/resting place has been identified in Building B1, no unlicensed work can be undertaken which will contravene the legislation outlined in this report. Prior to any works being undertaken which are likely to result in a breach of the legislation, a development licence must be obtained from Natural England. The licence application process will include the submission of a method statement detailing the current status of bats on site and how the favourable conservation status of the bat population will be maintained. Prior to a licence being issued, planning permission must be granted and relevant conditions relating to protected species and habitat issues must be discharged. Nocturnal emergence and dawn re-entry survey data, in line with Bat Surveys: Good Practice Guidelines published by the Bat Conservation Trust (Collins, 2016), is required to inform the licence application. An appropriate level of survey work has been undertaken within this study, however should any delays occur in the planning process which results in a delay in the bat licence application beyond June 2022, the bat activity surveys may have to be updated.

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Appendix 1: Nocturnal Emergence Bat Survey Results Map

1. Introduction

Brief and Site Location

This report presents the findings of three nocturnal emergence surveys of a detached house located at Oak Trees (Ordnance Survey Grid Reference: TQ 03874 545519).

Proposed Works

It is proposed to redevelop the site by demolishing the buildings on site and replacing it with nine dwelling houses.

Legislation and Planning Policy

Bats

All UK species of bat are protected species. Their breeding sites or resting places (roosts) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 which continues to apply in UK law through the Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019. Works affecting bats are subject to licensing procedures by Natural England (NE). The legal protection and licensing procedures are summarised in Appendix 1.

Survey Scope

In line with Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016) and Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment of dawn surveys (Bat Conservation Trust, 2022) Three separate bat surveys were carried out on building B1 consisting of nocturnal emergence bat surveys with the aid of infrared cameras to avoid the requirement for a dawn survey and extend the data capture period. The aim of these surveys was to detect whether bats are roosting within the buildings, and to enable a profile of site utilisation by bats to be compiled.

Reporting

This report aims to:

- Outline the survey methodology used;
- Present the results of the survey;
- Provide an interpretation of the survey results;
- Determine the need for further targeted surveys; and
- Provide suitable recommendations in line with planning policy and wildlife law, including potential licensing requirements, mitigation, compensation and enhancement measures

2. Methods

Field Study

Nocturnal Emergence Survey

In line with the specifications detailed in Bat Surveys: Good Practice Guidelines (Collins, 2016), the nocturnal surveys commenced 20 minutes prior to sunset and continued until 120 minutes after sunset. The nocturnal emergence survey was conducted using electronic bat detectors (EchoMeter Touch for IOS and Android plugged into Iphone 13 Max pro's) to facilitate the detection of bats and to aid in the determination of species of bat using the site. Audio files were analysed using Kaleidoscope Pro Analysis Software to identify bat species through call frequencies post-survey.

Due to the difficulty in detecting late emerging bats, two Sony camcorders (AX53) with infrared recording capability, with two supplementary infrared illuminators (Nightfox Torches) were also used during the surveys to assist in detecting late emerging bats. The camcorder footage was later analysed using FCPX video slow and fast speed ramp software to allow slowing down the video in line with the recorded bat call to ensure the location of bat movement was captured to conclude if the bat emerged from potential roosting features associated with the site. The location of the infrared camcorders remained the same during the surveys to ensure a full coverage of the areas of the building to be affected by the proposals.

Constraints

General Temporal Constraints An ecological survey can only identify what is present on site at the time it is conducted. However, habitat usage by species can change over time.

3. Survey Results

Surveyors' Experience

The lead surveyor for the bat surveys was Matt Harmsworth. Matt is a member of the British Ecological Society (BES), The Arboricultural Association (AA) and The Institute of Chartered Foresters (ICFor). Matt Harmsworth has 5 years' experience (within the last 5 years) and gained a wide range of ecological skills through academic and professional experiences. He has worked in ecological consultancy during several survey seasons and has experience undertaking protected species surveys under the supervision and support of a wide range of ecologists. Matthew Harmsworth is Lead Consultant and Director at ROAVR Group. Matthew has over 15-years continuous arboricultural experience and five years continuous ecological experience. Matthew has an HND in Countryside Recreation and a Foundation Degree in Arboricultural. Matthew has a Diploma and HND in Rural Studies and has gained a wide range of ecological and arboricultural skills and knowledge through a combination of academic and practical experience. Matthew has 3-years experience undertaking Phase 2 Protected Species Surveys in particular with bats and badgers. Matthew is currently continuing study through Ecology Training UK.

The supporting lead ecologist was Margarita Smoldareva. She is a qualifying member of Chartered Institute of Ecology and Environmental Management (CIEEM), and an associate member of the Landscape Institute and Institute of Environmental Management and Assessment (IEMA). Margarita Smoldareva has 9 years' experience (within the last 9 years) and gained a wide range of ecological skills through academic and professional experiences. She has worked in ecological consultancy during several survey seasons and has experience undertaking protected species surveys and Phase 1 Habitat Surveys. Margarita gained a Great Crested Newt Licence (Level 1) in 2019, Bat Licence (Level 1) and has been involved in multiple reptile translocation projects. Margarita's qualifications include BSc (Hons) in Landscape Management (Land Use) in 2013 (University of Greenwich), Postgraduate Diploma in Landscape Ecology with GIS in 2018 (University of Greenwich) and she is presently studying MSc Connected Environments (part-time) at University College London (UCL East).

Max Shaw is a graduate ecologist with one-years experience working in ecology undertaking desktop studies, assisting with report writing and carrying out supported field work. Max holds a BSc (Hons) Environmental Science from Sheffield Hallam University.

Rachel Blood is a graduate ecologist with one-years experience working in ecology undertaking desktop studies, assisting with report writing and carrying out supported field work. Rachel has a BSc in Zoology and a Masters in Primatology.

Connor Harmsworth is a field ecologist and arboricultural graduate consultant at ROAVR Group. Connor has 3-years continuous ecology and arboricultural field work experience and one years experience in carrying out desktop assessments. Connor has attended numerous CPD courses including Ecology Training UK studies in bat surveying. Connor has two years protected species surveying experience in relation to bats (just under 100 hrs) 25 hours under supervision from a licensed bat worker.

ROAVR Group is a nationwide arboricultural and ecological consultancy with directly employed staff nationwide supporting those passing through the planning process. Established in 2013 we have ten-years experience conducting survey and reporting work.

Building B1:

Dusk Emergence Survey One

The 1st nocturnal emergence survey was undertaken on 10th May 2023 by Connor Harmsworth and Rachel Blood. The weather conditions recorded at the time of the survey are detailed in Table 3.1

Parameter	Conditions	
	Start	Finish
Temperature (°C)	12	11
Cloud Cover (%)	0	5
Precipitation	None	3%
Wind Speed (mph)	3	3

Table 3.1: Weather Conditions During First Nocturnal Emergence Survey

The nocturnal emergence survey commenced 20 minutes prior to sunset and continued until 120 minutes after sunset. Sunset was at 20:38 hrs (XCWeather).

Between 21:02 and 21:45 Surveyor 2 recorded 10 records of bat activity including Common Pipistrelle and Noctule. At 21:02 surveyor 2 recorded a Common Pipistrelle emerging from the roof at the back of the property (south side).

Analysis of the sound and video recordings did not identify any further species of bat.

Surveyor 1.

Common Pipistrelle

Between 21:13 and 21:45 recordings were captured of Common Pipistrelle around the roof of the property. These bats tended to commute in an easterly and north easterly direction.

The latest bat was detected at 21:45 flying over the house to the tree line to the NE.

Noctule

At 21:15 and 21:16 a single Noctule was seen flying overhead NE-SW and foraging along the tree line to the east of the property.

Surveyor 2.

Common Pipistrelle

At 20:57 a Common Pipistrelle emerged from the fascia area on the second storey above the properties front door. At 21:05 2 bats were seen commuting from north toward the southwest. At 21:11 a bat was seen commuting from north to south west.

Noctule

At 21:03 a single noctule was recorded commuting north to south over the driveway.

No other species of bat were detected or observed during this survey. Analysis of the sound and video recordings did not identify any further species of bat.

The survey concluded at 22:38.

Dusk Emergence Survey Two

The 2nd nocturnal emergence survey was undertaken on 25th May 2023 by Connor Harmsworth and Rachel Blood. The weather conditions recorded at the time of the survey are detailed in Table 3.1

Parameter	Conditions	
	Start	Finish
Temperature (°C)	17	15
Cloud Cover (%)	0	0
Precipitation	None	None
Wind Speed (mph)	5	4

Table 3.1: Weather Conditions During Second Nocturnal Emergence Survey

Common Pipistrelle activity was recorded from 21:21 to 21:44. Noctule activity was recorded at 21:46 and 21:52. A single Brown Long Eared Bat recording was made at 21:58 around trees to the south of the property but this bat was not seen.

Analysis of the sound and video recordings did not identify any further species of bat.

Surveyor 1

Common Pipistrelle

At 21:21 a bat was seen flying west toward the trees in the NE of the property. At 21:32 a bat was seen flying across the property from north to south. At 21:33 a bat flew overhead toward woodland to the NE. At 21:44 a bat flew over the house toward the tree line to the north.

Noctule

At 21:42 and 21:46 a Noctule bat was seen flying in circles foraging to the NE of the property and again to the south before moving to tree cover to the east.

Brown Long Eared Bat

At 21:58 a BLE bat was recorded but not seen flying from trees to the south to trees on the west.

Surveyor 2

Common Pipistrelle

From 21:14 to 21:37 a bat was foraging around B1 and occasionally moving to the south and returning.

At 21:36 a bat emerged from the dormer on the east side of B1 under the lead flashing, foraged around this location then commuted south. This emergence location was different from the first survey.

Noctule

At 21:44 a noctule was seen and recorded foraging over the driveway and eastern area for 6 minutes.

No other species of bat were detected or observed during this survey. Analysis of the sound and video recordings did not identify any further species of bat.

The survey concluded at 22:10.

Dusk Emergence Survey Three

The 3rd nocturnal emergence survey was undertaken on 15th June 2023 by Connor Harmsworth and Rachel Blood. The weather conditions recorded at the time of the survey are detailed in Table 3.1

Parameter	Conditions	
	Start	Finish
Temperature (°C)	21	19
Cloud Cover (%)	0	0
Precipitation	None	None
Wind Speed (mph)	4	3

Table 3.1: Weather Conditions During Third Nocturnal Emergence Survey

The nocturnal emergence survey commenced 20 minutes prior to sunset and continued until 120 minutes after sunset. Sunset was at 21:20 hrs (XCWeather).

Common Pipistrelle activity was recorded from 21:41 to 22:07.

Surveyor 1

Common Pipistrelle

Common Pipistrelle foraging activity to the south of the property was recorded from 21:43-22:06.

Surveyor 2

Common Pipistrelle

At 21:41 a bat was seen and recorded commuting east to north in front of B1. At 21:42 a bat was recorded foraging to the west of B1 between the trees. At 21:47 a bat emerged from B1 on the SW side (surveyor 1 did not pick this up). At 22:04 a bat emerged from the northernmost dormer.

Soprano Pipistrelle

One Soprano Pipistrelle was recorded foraging around the northwest dormer then commuted to the east.

Analysis of the sound and video recordings picked up a single noctule bat to the north of the site but did not identify any further species of bat.

The survey concluded at 22:40.

4. Conclusion and Required Actions

There is a confirmed bat roost for two common pipistrelle bats in the roof space of Building B1. The loss of this non-breeding pipistrelle roost will have a negligible impact upon the local population of the species.

The demolition work will result in the destruction of this roost; therefore a development licence from Natural England is required and the following mitigation is proposed:

Recommendations:

R1: Installation of three woodcrete bat boxes on nearby trees prior to the commencement of works.

R2: A pre-works 'toolbox' talk with site operatives.

R3: Supervision, by a licensed bat worker, of the destruction/disturbance of the confirmed and any high potential bat roosting locations (areas within 5-10m of all roosting locations).

R4: Where any roosts are lost, replaced on a like for like basis within the new buildings.

R5: Installation of two Schwegler 1FR (or similar) bat tubes within the area of roofline changes.

Should works commence more than 18 months after the nocturnal activity surveys were completed, an update dusk survey will be required. Small bat roosts with one or two non-breeding bats can be virtually impossible to identify at any time in the year. Therefore, precautionary methods of work are recommended.

The Ecological Impact Assessment (EclA) process used in this assessment follows Chartered Institute for Ecology and Environmental Management (CIEEM) guidance (2016).

For species, conservation status is determined by the sum of influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within a given geographical area.

Due to the multiple potential roosting opportunities on the building, the high-quality habitat within proximity to the site, the building was considered to be of high bat roost potential during the PRA.

During the nocturnal surveys, a single common pipistrelle bat was observed emerging from the northern side of the roof and a further common pipistrelle emerged from the southwest of the roof during the first and third nocturnal surveys.

As only three bats were recorded emerging during two of the three survey visits, it is considered that the building currently supports a transient, non-breeding roost for common pipistrelle bats.

Due to the difficulty of detecting individual pipistrelle roosts, it is possible that other non-breeding roosting locations used by single bats may be present within the building.

Regular foraging by a small number of bats was also recorded during the nocturnal activity surveys; much of this activity was concentrated along the tree edges that border the site.

Loss / Disturbance of Bat Roost Sites

In the absence of appropriate mitigation, it is considered that the works could result in the loss of one, non-maternity common pipistrelle bat roost. The loss of this roost would result in a low impact upon the population of these bat species (Mitchell-Jones, 2004). This impact should be reduced through the implementation of appropriate mitigation measures to ensure that the population levels of bats on site are maintained at a favourable conservation status, and that bats are not harmed during works. The low magnitude impact will not result in a significant effect on the species in the local area.

Common pipistrelle bats are relatively common and widespread throughout England and in the local area. The population statuses nationally are considered to be favourable. See:

http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/S5009_UK.pdf

The bat roost present in the building will be lost as part of the proposed works due to demolition of B1.

Proposed lighting for the site is not known. Bat foraging and roost sites can be affected by lighting (see "*Artificial lighting and wildlife*" (BCT, 2014)). Light falling on a bat roost exit point, regardless of species, will at least delay bats from

emerging. This shortens the amount of time available to them for foraging. As the main peak of nocturnal insect abundance occurs at and soon after dusk, a delay in emergence means this vital time for feeding is missed.

At worst, the bats may abandon the roost. Bats are faithful to their roosts over many years and disturbance of this sort could have a significant effect on the future of the colony.

Loss of Bat Foraging Areas

It is not thought that the development works will entail any significant changes to the surrounding habitat, therefore a loss of foraging habitat for bats is not anticipated. Artificial lighting can cause disturbance to bats therefore any new lighting planned for the car park areas should be designed so as to minimise illumination of the surrounding trees.

4.1 Licensing Requirements for Bats

Due to the presence of bat roosts within the building a development licence for works affecting a bat roost is required from Natural England prior to works commencing.

All UK bat species are protected under the 'Conservation (Natural Habitats, &c.) Regulations (1994)' which make it an offence to damage, destroy or disturb a breeding site or resting place of any such animal. Subsequently, a European Protected Species (EPS) licence will need to be applied for from Natural England (NE) in relation to any bat roost before any works that could disturb or destroy a bat roost can go ahead.

A licence application can take 40 working days to be assessed and for a licence application to be successful (and a licence granted), the following three conditions must be satisfied:

- The development is preserving public health or public safety or there are other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment
- That there is no satisfactory alternative; and
- 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

4.2 Avoidance, Mitigation, Compensation and Enhancement Measures for Bats

The mitigation strategy for the proposed works should ensure that bats are not harmed during works and that roosting opportunities remain during and after works. The mitigation measures proposed are appropriate for non-maternity roosts of a small number of pipistrelle bats.

The aim of the strategy is to retain roosting areas where possible. Where this is not feasible, the roosts should be replaced/reinstated on a like-for-like basis.

The strategy includes:

- Installation of bat boxes on nearby trees prior to the commencement of works.
- A pre-works 'toolbox' talk with site operatives.
- Supervision, by a licensed bat worker, of the destruction/disturbance of the confirmed and any high potential bat roosting locations (areas within 5-10m of all roosting locations).
- Retention of roosting locations for pipistrelle bats within the building, where possible and where any are lost, replaced on a like for like basis.
- Installation of two Schwegler 1FR bat tube (or similar) on the upper north-western aspect of the proposed second storey extension.

The surveys have indicated that the building is being used transiently by a small number of non-breeding common pipistrelle bats. As such, the timing of the works is not critical (assuming that the status of the roost does not change). If there is any suspicion that breeding is taking place (i.e. during the update surveys or at any time during the supervised roof strip etc.), then work in that area might have to be delayed, once all the young bats are flying and have dispersed from the roost (early September). In this event, it will be necessary to apply for an amended licence from Natural England to cover the change in the status of the roost.

4.3 Longevity of Report

Survey data should ideally be from the last survey season before a planning or licence application is submitted, although the length that survey data remains valid should be decided on a case-by-case basis and is dependent upon several factors¹ (Collins, 2016). If development works do not begin within eighteen months to two years of the date of this report, an updated survey may be required in accordance with guidance in BS 42020:2013² and CIEEM (2019), to determine if conditions and bat use has changed since described in the current report.

5. Limitations

ROAVR Group has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.

This Report may not be relied upon by any other party without the prior and express written agreement of ROAVR Group. The assessments made assume that the land use will continue for its current purpose without significant change. ROAVR Group has not independently verified information obtained from third parties.

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Should you require any further information, please do not hesitate to contact us at any time.

Mr Matthew Harmsworth
Lead Consultant

Matt Harmsworth

Prepared by: Matt Harmsworth.
Checked by: Rita Smoldareva.



6. References

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7. Appendix 1

Bat Ecology

There are 17 known breeding species of bat found in the UK, with additional species recorded as migrants or vagrants. All of them are small, nocturnal, flying, insectivorous mammals that are under conservation threat, and many have undergone massive population declines over the last century. Some species, such as common (Pipistrellus pipistrellus) and soprano pipistrelle (Pipistrellus pygmaeus) are relatively common and widespread in the UK, while others, such as greater horseshoe (Rhinolophus ferrumequinum) bats, have an extremely restricted distribution.

Most bats will use a variety of roosts of different types throughout the year. The winter hibernation sites typically have cool, humid conditions with a stable microclimate and low levels of disturbance. Most British bats hibernate in caves or artificial structures that fulfil such requirements, such as mines, tunnels and cellars. Bats emerge from hibernation around late March or early April and move into transition or intermediary roosts. Around early May, female bats gather in colonies to form summer or maternity roosts, and it is here where they will give birth between late May and early July. A colony may consist of many individuals (sometimes hundreds of bats) of mixed age and sex. Roosts occur in a variety of habitat types, including tree-holes, caves, buildings and other secure crevices or internal spaces with appropriate stable temperatures and humidity. Bats may change roost locations many times during a year, and colonies may split up and reform during this period. Males occupy solitary roosts in autumn, to which they attract females for mating.

Legislation

All British bat species and any place used for shelter or protection, or a breeding site or resting place (their roosts) are fully protected under the amended Wildlife and Countryside Act 1981 through inclusion in Schedule 5. The roosts are protected irrespective of whether bats are present at the time. All bats are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019.

These pieces of legislation make it illegal to deliberately or recklessly:

- kill, injure or capture bats;
- disturb bats;
- damage, destroy, or obstruct access to bat roosts (including sites that are currently unoccupied);
- possess or transport a bat or any part of a bat unless acquired legally; or
- sell, barter or exchange bats or parts of bats.

Disturbance is defined as any activity that is likely to impair bats ability:

- to survive, to breed or reproduce, or to rear or nurture their young;
- to hibernate or migrate; or
- to significantly affect the local distribution or abundance of the species to which they belong.

Habitats Regulations Licensing

If a European Protected Species will be affected by a development, Natural England (NE) can issue licences under the Habitats Regulations to permit otherwise prohibited acts. Licences for certain activities can be granted providing “three tests” are satisfied, that is:

1. the purposes of “preserving public health or safety, or for reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”;
2. there must be “no satisfactory alternative”; and,
3. the derogation is “not detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

Where Planning regulations apply, NE will only issue a licence after planning consent has been granted.

The licence application will require the production of a detailed method statement, which sets out the activities to be carried out under the licence to minimise the risk of bats being harmed during construction works and ensure that bats will be conserved during the development of the site. This will need to detail the mitigation proposed (such as the replacement or compensation roost), the timescale and schedule of works, the number, size and locations of bat access points to be provided, the type of materials to be used (roofing material, roof lining, fascias, soffits and bargeboards etc.), lighting proposals, action to be taken in the event bats are found during works and a post-development monitoring programme. The method statement will need to be accompanied by scaled plans and maps detailing the bat mitigation features.

A cross-section of the access points and roost space is often required. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of development works. In some instances, a method statement is requested by Natural England before the planning application is determined.

Natural Environment and Rural Communities (NERC) Act 2006 Under Section 40 of the Natural Environment and Rural Communities Act (2006), Local authorities have a duty to have regard to the conservation of biodiversity in exercising their functions. The duty affects all public authorities and aims to raise the profile and visibility of biodiversity, to clarify existing commitments regarding biodiversity, and to make it a natural and integral part of policy and decision making. Seven of the UK species of bat (soprano pipistrelle, barbastelle, Bechstein's, noctule (*Nyctalus noctule*), brown long-eared, lesser horseshoe and greater horseshoe bats) have been listed on the UK Biodiversity Action Plans (2007) as conservation priorities.

National Planning Policy Framework (2021) and Biodiversity and Geological Conservation Circular 06/2005

The National Planning Policy Framework (2021) and Biodiversity and Geological Conservation–Statutory Obligations and Their Impact within the Planning System Circular (06/2005) state that the presence (or otherwise) of a protected species is a material planning consideration and the extent that they may be affected by the proposed development must be established before planning permission is granted. Otherwise, all relevant considerations may not have been addressed in making the decision.

Appendix 2

At least three Schwegler 2F DFP bat boxes (or similar woodcrete boxes) should be installed on mature/semi-mature trees within 100m of the building prior to the commencement of works. BCT guidelines (Collins, 2016) recommend that any bat boxes are positioned 3m or higher from the ground, so that the roosts cannot be easily interfered with. Consideration should be given to the aspect of the boxes. Those facing south will be warmed by the sun and may be more used in the summer. Roosts with cooler aspects will be more likely utilised year-round by male bats, or for hibernation during the winter period.

Woodcrete bat boxes have been chosen due to their construction from a mixture of wood saw-dust, concrete and clay, and their known use by bats including common pipistrelles, soprano pipistrelles and brown long-eared bats (personal observations). They are breathable and maintain a suitable temperature due to their insulating properties. They are waterproof and rot-proof, with a life expectancy of 25 years without any maintenance requirements (i.e. waterproofing).

These bat boxes should ensure that roosting opportunities for bats and will be available at all times during the works.

In addition, two integrated Schwegler 1 FR bat tube (or similar design) should be installed on the new dwellings to provide a replacement roosting structure for pipistrelle bats (see Figure 5 in Appendix 3). These can be easily integrated into the stone, block or brickwork and rendered over to blend in with the surrounding finish to the wall. Alternatively, boxes with matching stone or brick finish can be obtained.



Due to the proximity of the boxes to the existing roosting locations and foraging habitat, it is anticipated that the bats on site will locate the bat boxes.

Appendix I: Survey Plans and NVA Screenshots







NVA screenshots from cameras located to the north and south of the built footprint during all 3 surveys.


General Notes
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
 The original of this drawing was produced in colour; a monochrome copy should not be relied upon.
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Key

-  Building
-  Surveyor Location
-  IR Camera Location

-  Bat Emergence Points

-  NVA Screenshot

Drawing Title			
Dusk Survey Plan			
Client			
Scott Gifford			
Site/Project			
Oak Trees, Clandon Road, Send, Surrey GU23 7LA			
Scale/Sheet		Date	
NTS - A3		2/7/2023	
Drawing No	Rev	Drawn By	Chkd By
23_BAT2_04_47	1	CS	MH



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