BAT EMERGENCE SURVEY

32 LINKSWAY,

NORTHWOOD, GREATER LONDON

Commissioned by: **Dholak Estates Ltd**

Report Number: ASW/DEL/103/25/2022
January 2022

ASW Ecology Ltd
Office/Mobile: 07710 150590
London Euston Woburn Place, 16 Upper Woburn Place, London WC1H 0BS
E-mail: andrew@aswecology.co.uk Website: www.aswecology.co.uk

CONTENTS

EXECUTIVE SUMMARY

1. A total of two bat species were recorded within the application site at 32 Linksway during this bat emergence survey and this included common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*).

2. A single common pipistrelle emerged from under a roof tile or ridge tile at the southern end of the existing house during the first bat survey visit.

3. This demonstrates the continued presence of a bat roost at this site, since bat droppings were found in the roof void of the house during the October 2018 ecology survey.

4. No other bat species emerged from the house during this follow-up investigation

5. The rear garden was well used by bats both as commuting corridors and for foraging purposes, including around the large oak tree.

6. A European Protected Species Mitigation Licence (EPS) (under the 2010 Regulations) for Bats in respect of development will be required from Natural England to permit the loss of a bat roost during the future demolition works, as bats are fully protected by UK and European law.

7. Consequently, Natural England will require suitable high quality mitigation measures and compensation to be put in place in order to prevent the complete loss of roosting bats at the overall site as a result of the redevelopment works eg the use of high quality bat boxes at this site for bats to use for roosting purposes.

1. INTRODUCTION

- A Bat Emergence Survey was undertaken at 32 Linksway, Northwood, Greater London, was undertaken during May to July 2019, for the client: Dholak Estates Ltd.

- This bat survey had been requested in regards to the proposed redevelopment of this property by the client, eg demolition of the existing house.

- This study is a follow-up investigation to the ecology survey undertaken at this property in October 2018.

- The main method used for this bat emergence survey, as well as the full results and the final recommendations can be found within this report.

- Both this follow-up bat survey and the report were undertaken and compiled by Mr Andrew S. Waller, Consultant Ecologist, ASW Ecology Ltd, with the kind help from assistants.

- Mr Andrew S. Waller MSc BSc (Hons) MCIEEM - has been a Consultant Ecologist since 1997, and has very extensive experience/knowledge of protected wildlife species/issues including bats, for which he is fully licensed to survey throughout England by Natural England for consultancy purposes (Bat Class 2 Licence Registration Number: 2015-15703-CLS-CLS). He also has Natural England survey licences for great crested newts and barn owls. He has been studying wildlife in general for 37 years and bats for 26 years. He is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

2. METHODOLOGY

2.1 Bat emergence survey method

- During May to July 2019, a follow-up Bat Emergence Survey was undertaken at the existing house at 32 Linksway.

- A total of three bat emergence survey visits were undertaken at the house, because it was already known that a bat roost was present in the roof void.

- A total of two experienced bat surveyors using mainly Bat Box Duet bat detectors and an Echo Meter Touch bat detector were present during the bat survey visits. The main aim was to determine the range of bat species present; the presence of any roosts during the survey period; and the presence of any key foraging areas and bat commuting routes.

- The three dusk based visits were undertaken in suitable weather conditions only, so there was the best chance of finding any possible emerging bats. The dusk visits started before sunset and lasted for up to 2 hours after sunset.

- All results from this bat survey can be found in the next chapter of this report and a map showing all bat sightings plus the bat roost location are shown in Appendix 2.

2.2 Survey constraints

- Due to the timing of this bat survey, only the Spring and early Summer 2019 period could be covered. This though is a standard constraint for any bat survey which can only investigate part of any year.

- The June to August period is important to bats since this is when maternity roosts are present and young bats will be born. Large roosts are sometimes present within structures, and can be very visible during bat emergence surveys. This survey was commissioned when such roosts will have formed, so was timed at the key period of the year for bats.

- As always though, without taking into account any further active surveying or monitoring, this study can only provide a “snapshot” of the presence of bats at the site during the period of this study.

- Please also note that any bat survey report is valid for one year only, as stated in the BCT bat survey guidelines (BCT, 2016).

3. BAT SURVEY RESULTS

3.1 Bat emergence survey – 32 Linksway

Bat emergence survey - visit 1 – 2/5/2019
Sunset time: 8.24pm
Weather: dry, mild, calm & clear (1/8CC) Temp (sunset): 11°C
Windspeed (max): 0mph RH: 84%
Inverts present: small flies and mosquitoes

Bat Species	Time Noted	Location
Common Pipistrelle	9.04pm	Emerged from southern end of the house, but could not see which crevice under the roof tiles, as roof aspect is obscured. Flew to rear garden
Common Pipistrelle	9.08pm	In rear garden
Common Pipistrelle	9.15pm	In rear garden
Common Pipistrelle	9.25pm	At rear garden. No further bats after this time

Bat emergence survey - visit 2 – 5/6/2019
Sunset time: 9.13pm
Weather: dry, mild, calm & cloudy (4/8CC) Temp (sunset): 16°C
Windspeed (max): 0mph RH: 90%
Inverts present: flying insects seen

Bat Species	Time Noted	Location
Common Pipistrelle	10.01pm	Brief pass at east side of the property. Only bat contact of the night. Unclear why bat activity was so poor on this night

Bat emergence survey - visit 3 – 4/7/2019
Sunset time: 9.20pm
Weather: dry, warm, calm & clear sky (0/8CC) Temp (sunset): 22°C
Windspeed (max): 0mph RH: 50%
Inverts present: small flies, moths and mosquitoes

Bat Species	Time Noted	Location
Common Pipistrelle	9.46pm	Flew around oak tree in rear lawn
Common Pipistrelle	9.56pm	Front of house
Soprano Pipistrelle	10pm	Front of house
Common Pipistrelle	10.02pm	Flew across house rear
Common Pipistrelle	10.15pm	Briefly at rear garden
Common Pipistrelle	10.20pm	Side of house
Common Pipistrelle	10.21pm	Rear garden
Common Pipistrelle	10.25pm	Rear garden - foraging
Common Pipistrelle	10.26pm	Rear garden - foraging
Common Pipistrelle	10.29pm, 10.30pm & 10.45pm	Rear garden – foraging. No further bats after this time

4. CONCLUSIONS

4.1 Significance of the bat emergence survey results

- Two bat species were recorded within the application site at 32 Linksway during this follow-up bat emergence survey and this included common pipistrelle and soprano pipistrelle.

- A single common pipistrelle emerged from under a roof tile or ridge tile at the southern end of the existing house during the first bat survey visit. The exact location of the roost exit could not be seen unfortunately as the southern aspect of the roof is obscured visually.

- This demonstrates the continued presence of a bat roost at this site, since bat droppings were found in the roof void at the house during the October 2018 ecology survey.

- There was no indication that this house is being used as a breeding roost and hence the existing roost, whilst still important, is not a roost of high nature conservation significance.

- This house is being used by a small number of common pipistrelles as a daytime roost. And it may be used by both a small number of adult bats and also juvenile bats, after the nearest bat maternity roost/s have fragmented after the Summer months.

- No other bat species emerged from the house during this follow-up investigation

- The rear garden was well used by bats both as commuting corridors and for foraging purposes, including around the large oak tree.

- Please see the next chapter of this report, for the recommendations in regards to the bat licence needed before work can begin, as well as details on the proposed bat mitigation and compensation strategy.

4.2 Impact assessment

In the absence of any mitigation measures or precautions, the following direct or indirect impacts from the future demolition related works on bats at this site would be predicted as:

- **DIRECT:** A bat roost is present within the existing house at this site. There would be a moderate negative impact therefore to the bat populations in the area due to the loss of this bat roost, as it cannot be retained. There would be a risk of bats being disturbed, injured or killed by the works, without mitigation. However, mitigation will of course be used so this risk will be reduced to nil in reality. **Impact magnitude predicted: MODERATE/HIGH**

- **INDIRECT:** Since no bat foraging habitat or commuting routes are to be significantly impacted, without mitigation, there is a no risk of the loss of high quality bat related habitat or fragmentation of the local bat population due to the demolition and clearance works. There could be a little less choice for bats by the demolition works but this will be compensated for by the use of high quality bat boxes. **Impact magnitude predicted: LOW**

4.3 Summary of the legal protection of bats in the UK (Simplified summary only of the legislation – please see other texts for full details)

4.3.1 THE LEGAL PROTECTION OF BATS IN ENGLAND AND WALES

Introduction

All species of bats in England and Wales are protected by law. Their legal protection derives from two sources:

- the strict species protection provisions of the EU Habitats Directive as implemented in England and Wales by Part 3 of the Conservation of Habitats and Species Regulations 2010 (the **"2010 Regulations"**); and

- Part 1 of the Wildlife and Countryside Act 1981 (as amended).

Conservation of Habitats and Species Regulations 2010 ("2010 Regulations")

The 2010 Regulations came into force on 1 April 2010. They replace the previously applicable regulations (Conservation (Natural Habitats, &c) Regulations 1994) in relation to England and Wales. The 2010 Regulations are the principal means by which the EU Habitats Directive is transposed in England and Wales.

The Regulations contain a number of Parts but Part 3 sets out the protection to be afforded to "European Protected Species" ("EPS"), which includes all species of British bats. The list also includes other species which are rare on a European scale, such as great crested newts, otters and dormice.

Under Part 3 of the 2010 Regulations both bats themselves and their "breeding sites and resting places" (most commonly their roosts) are protected.

Part 3 provides that it is a criminal offence to do the following (note that this is not an exhaustive list of all offences but rather a list of offences which will be of most relevance to developers):

a. to damage or destroy a breeding site or resting place of a bat (Reg 41(1)(d));

b. to deliberately capture, injure or kill any bat (Reg 41(1)(a));

c. to deliberately disturb bats [note, wherever they are occurring] (Reg 41(1)(b)), in particular:

    i. any disturbance of bats which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young (Reg 41(2)(a)(i)); or

    ii. any disturbance of bats which is likely to impair their ability to hibernate or migrate (Reg 41(2)(a)(ii)); or

    iii. any disturbance of bats which is likely to affect significantly the local distribution or abundance of the species to which they belong (Reg 41(2)(b));

d. to have in one's possession or to control or to transport or to sell or exchange or offer to sell or exchange any live or dead bat or part of a bat which has been taken from the wild; or any part of, or anything derived from, a bat or any part of a bat (Reg 41(3) and (4)); and

e. to attempt any of the above (Reg 116(1)).

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to £5,000, and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate. Where a body corporate has committed the offence, the directors or officers of the company may also be prosecuted if the offence has been committed with their consent or connivance, or is attributable to their neglect (Reg 124).

Wildlife and Countryside Act 1981 ("WCA 1981")

The WCA 1981 protects a wide range of animals, plants and habitats in the UK. All British bat species are afforded protection under Part 1 of the WCA 1981, in addition to the protection they have under the 2010 Regulations.

As regards England and Wales the following offences apply to protect bats under the W&CA 1981:

a. to intentionally or recklessly disturb any bat while it is occupying a structure of place which it uses for shelter or protection (s9(4)(b) WCA 1981);

b. to intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection (s9(4)© WCA 1981);

c. attempting either of the above (s18(1) WCA 1981).

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to £5,000, and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate. Where a body corporate has committed the offence, the directors or officers of that company may also be prosecuted if the offence has been committed with their consent or connivance or is attributable to their neglect (s69(1) WCA 1981).

5. RECOMMENDATIONS

5.1 Bat EPS Mitigation Licence requirement

- **A European Protected Species Mitigation Licence (EPS) (under the 2010 Regulations) for Bats in respect of development** will be required from Natural England to permit the predicted loss of a common pipistrelle daytime roost, during the proposed demolition related works, as bats are fully protected by UK and European law. **It will be proposed that the licence is required for "overriding public interest", that there is indeed no satisfactory alternative to what is being proposed and that the stated works will not be detrimental to maintaining the bat species present at a Favourable Conservation Status. This will all be fully justified in the future Reasoned Statement.**

- The Wildlife Licensing Unit of Natural England is the appropriate authority for determining licence applications for works associated with development such as building/demolition related works, barn conversions, reroofing works, culvert removal/repair and tree felling where bat roosts are present.

- Natural England will have to be satisfied that the local bat populations will not be detrimentally affected by the building work. Consequently, they will require suitable mitigation measures to be put in place in order to prevent the complete loss of the bat roost at the overall property as a result of the planned works.

- The EPS licence forms include five separate parts: an Application Form, Method Statement, Reasoned Statement, Work Schedule and Supporting Documents. The applicant e.g. the client will be the licence holder, supported by the licensed bat consultant being used.

- For the prompt processing of the licence application, it is always advised that the client ensure that the planning position in respect to their proposal has been resolved in advance of submitting the licence application and all mitigation options agreed on. In exceptional circumstances, it may be possible to submit an application whilst planning permission is being sought, but this is highly unusual. **Planning consent is therefore required <u>before</u> the Bats EPS Mitigation Licence is applied for.**

- Bat EPS Mitigation Licence applications are stated to be processed within thirty days by Natural England, although it could be faster than this, or slower, should further information be required by the Wildlife Advisor.

- The client will need to consult an experienced licensed bat consultant for advice on how to proceed with the required Natural England Bats EPS Mitigation Licence application, as it is clear that the future outlined works would trigger offences under the law, and such offences cannot be avoided by the timing of such works when bats are not present e.g. the hypothetical scenario where no bats are to be disturbed, no roost is to be damaged or lost and with no bat roost access points obstructed.

- **As an additional licensing option, it may be possible to under these works under a Low Impact Class Licence for Bats from Natural England. A bat ecologist with such a licence will have to be sought first and if they are**

available. Such a licence is possible for roosts where only a very small number of bats are present, of a common species and where the roost if of low nature conservation status. Such a licence application can be undertaken quicker, with the licence being gained in a shorter period of time. This will be investigated now to see if this is viable for this site or not. Otherwise, a Bat EPSM Licence will need to be applied for as originally advised.

5.2 Bat Impact Mitigation and Compensation Scheme

- The main mitigation and compensation scheme is detailed below in regards to the daytime common pipistrelle roost present at 32 Linksway, so the future demolition related works are to proceed under the proposed Bats EPS Mitigation Licence. The scheme below will compensate bats during the stated works and that they will not be without available roosting sites during these works. The aim will be to provide a net gain in the number of roosting sites available for the bats, but critically provide like-for-like mitigation which is the key aspect, and this will all be stated in the Bats EPS Licence Method Statement.

5.2.1 Provision of Schwegler woodcrete bat boxes

- **Installation of 6x Schwegler 2F Bat Boxes on mature trees at the property** - Bat boxes will be used by various bat species, and these high quality bat boxes would need to be installed in suitable high locations facing appropriate aspects, close to clutter, so to have a chance of success. The trees at the overall property, especially the larger mature trees are ideal for these boxes. Common pipistrelle as well as other bat species will use these bat boxes for roosting purposes, and are appropriate mitigation for the small sized roost present. Six such boxes can be installed, which will be secure and undamaged during all of the proposed works eg the bat boxes to compensate for the bat roost to be lost and for the loss of other potential roosting niches at the current house. One bat box installed at height per tree would be ideal but up to three bat boxes per tree is acceptable, as long as the boxes face different aspects. This number of high quality bat boxes will provide a wide range of bat roosting sites which will be available during the period of the works and afterwards.

5.3 Timing of the future demolition works

- Usually, late summer/early autumn e.g. September/October or early spring e.g. April/early May, are ideally the best times to work on such buildings, as this avoids the main bat breeding season as well as the bat hibernation period.

- It will be important that the demolition works are ideally undertaken when the bats are not present at the building, if that is possible.

- This will then reduce any risk of bats being injured or killed by accident during any of the proposed works, which will be the critical objective of the mitigation works.

5.4 Post development bat monitoring

- This post development monitoring is not compulsory for a more common species such as common pipistrelle, and with a roost of lower nature conservation significance.

- However, it is still recommended that some optional monitoring is still kindly permitted by the client so to ensure that the bat boxes are being used by bats or have the best chance of being utilised in the near future.

- For the type of roost present and the compensation, between one to three dusk based bat survey visits can be undertaken at the site in the year after development has ended.

- Even just one single bat dusk monitoring visit would prove invaluable. This monitoring would be inexpensive and would be highly useful in determining if the stated compensation has been successful or not.

5.5 Best practice guidelines – bats and development works

- Within the future Bats EPS Mitigation Licence method statement to be written, it will be stated that it will be necessary to undertake a final re-check of the roost building, after the licence is gained from Natural England.

- If for any reason, an injured bat or grounded bat is found during any of the works then this will need to be rescued by the Licensed Bat Consultant and very carefully, using suitable gloves and cloth bags, moved to the new bat boxes nearby.

- A bat watch brief with a licensed bat consultant present on-site can be used during the most sensitive works by the building contractors. A toolbox talk from the ecologist about the bat roost and what actions are not permitted can also be utilised at the start of the licensed works.

- **The main objective of the above, is to do all possible to ensure that no bats are injured or killed at all during the proposed demolition works. And to ensure that the local bat populations at the site remain at a Favourable Conservation Status.**

5.6 Best practice guidelines – bats and tree management

- As general advice, during all tree related works at the development footprint, great care is needed in regards to the felling and management of the existing trees. Best practice guidelines will always need to be followed at all times without exception, so to comply with current bat related legislation.

- As general advice, it is recommended that a precautionary approach be taken when undertaking any works on moderate or high graded trees eg especially those with woodpecker holes or deep knot holes/crevices. **Contractors undertaking work such trees should undertake a climbing inspection using the endoscope provided by the consultant (as they will be able to examine the highest niches on the trees using harnesses and ropes since they are trained and qualified to do so)** and look for bats and their field signs such as black streaks

below a hole, crack or split in the tree; droppings in the entrance of any hole or crack; urine stains; smooth edged entrance holes with dark fur staining as well as actual scratch marks on entrance holes.

- The bat consultant should be present as part of a bat watch brief during the most sensitive works on specific trees and can liaise with the tree surgeons throughout. A toolbox talk by the bat consultant should be undertaken with the tree surgeon before the actual tree felling works begin.

- The tree contractors should avoid cutting through any cavities in a trunk section or in a tree branch, and instead cut well above and below the cavity.

- Wherever possible and where relevant, branches and trunk sections with any cavities or splits, as well as ivy covered trees should be lowered carefully to the ground, so to avoid injuring or killing any hidden bats. These trees should then be left for 24 hours and most certainly overnight, so any potentially hidden bats can leave.

- Bark plates on any parts of the trees to be reduced or felled, especially large sized plates, should be removed by hand where this is possible. This will allow the inspection for any bats hiding behind these plates. This is especially important in regards to some rare bat species in the UK which do show a preference for roosting behind large bark plates.

- **If there is ever any future evidence that there are tree based bat roosts in any of the trees to be felled or managed, then a Bats European Protected Species (EPS) Mitigation Licence in respect to "development" will be required from Natural England to avoid triggering various offences. So if bats or bat evidence are found during any tree check by tree surgeons, then work should stop immediately, and a licensed bat consultant urgently sought.**

6. REFERENCES

(1) Altringham, J.D. (2003) British Bats. HarperCollins*Publishers*, London.

(2) Bat Conservation Trust (2008) Bats and lighting in the UK – Bats and the Built Environment Series. Version 2. BCT, London.

(3) Collins, J. (Ed) (2016) Bat Surveys for Professional Ecologists – Good Practice Guidelines (3rd Ed). Bat Conservation Trust, London.

(4) Entwistle, A.C. et al (2001) Habitat Management for Bats. JNCC, UK.

(5) Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature.

(6) Mitchell-Jones, A.J. and McLeish, A.P. (2004) The Bat Workers' Manual. 3rd Ed. JNCC.

(7) Treweek, J. (1999) Ecological Impact Assessment. Blackwell Science Ltd, UK.

APPENDIX 1

Photographs A-D

Photograph A
A single common pipistrelle emerged from the house, from the southern end (right hand side of the house roof in the above photograph), during this bat survey. This shows that an active bat roost is still present here

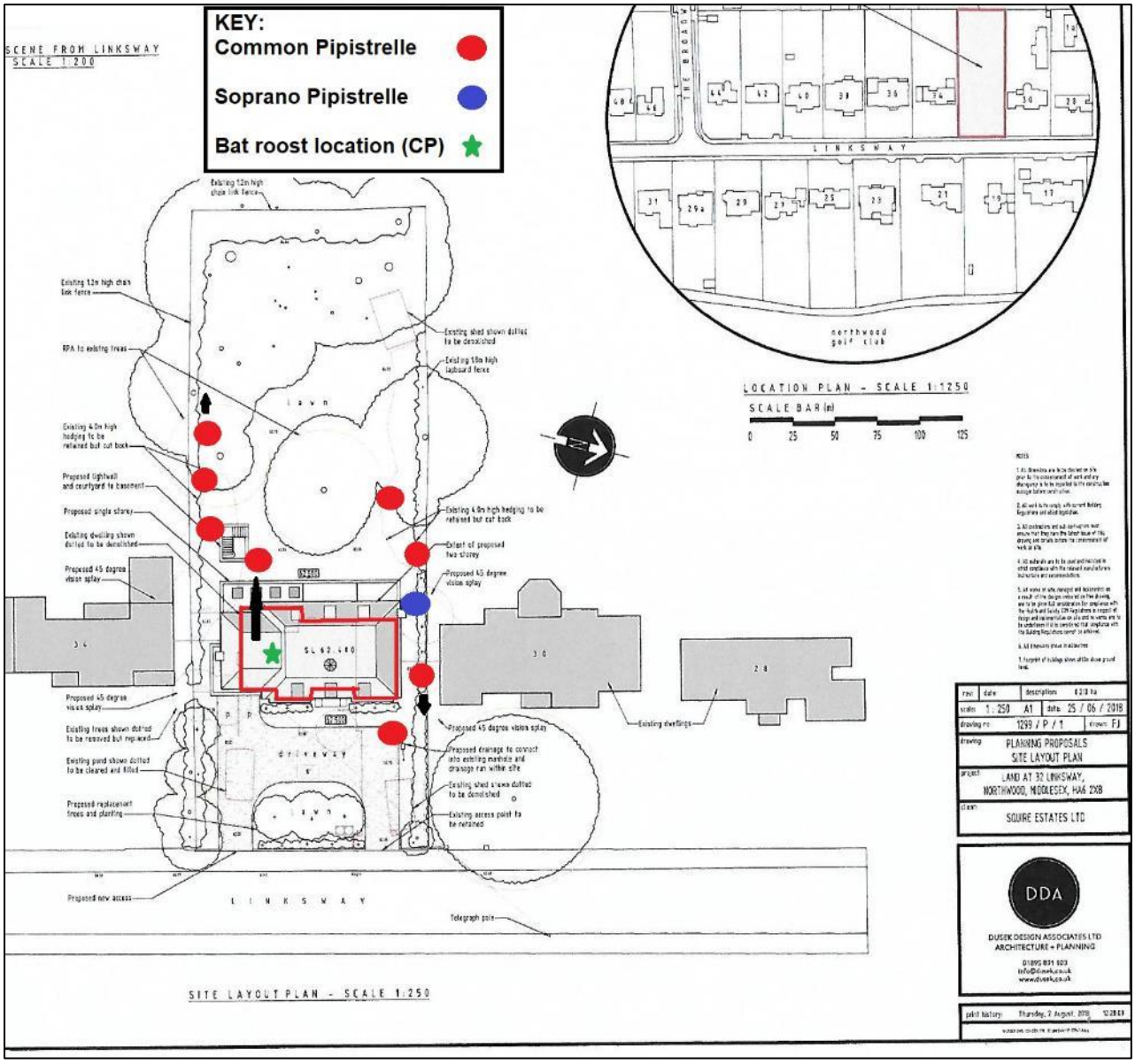
Photograph B
No other bat species emerged from the house during this bat survey

Photograph C
Both common and soprano pipistrelles foraged and commuted within the large rear garden at night

Photograph D
Only the very occasional bat foraged within the front garden, with most activity at the rear garden and side of the house

APPENDIX 2

Map A – Location of the bat sightings at 32 Linksway - 2019



APPENDIX 3

Selected sonograms for the bat emergence survey at 32 Linksway - 2019

Figure 1 – Bat sonogram of a Common Pipistrelle – foraging at the property

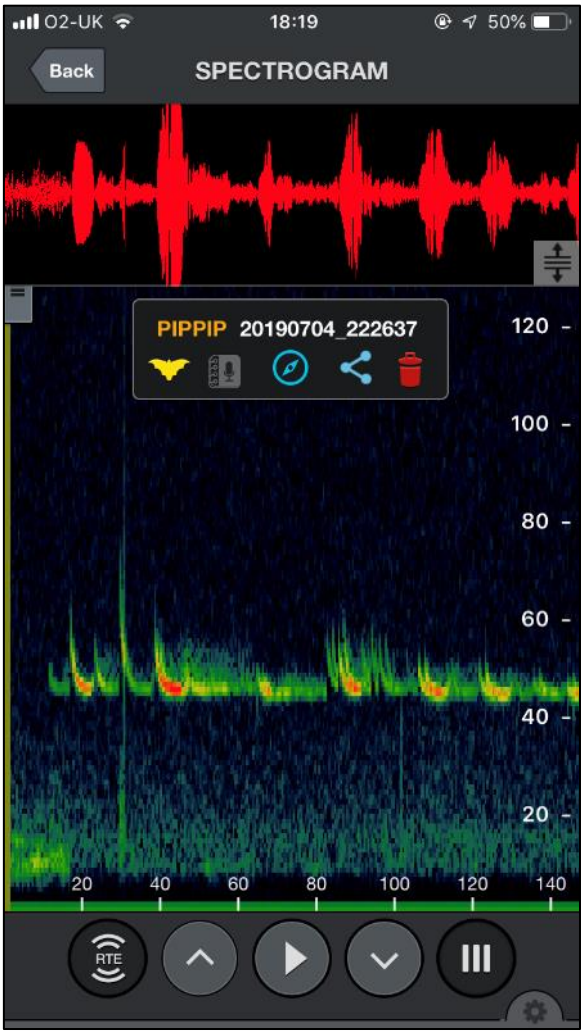


Figure 2 – Bat sonogram of a Common Pipistrelle – briefer contact at the property