

POTENTIAL BAT ROOST ASSESSMENT

BAT EMERGENCE SURVEY

Ref: 1189

11 Court Lodge, Shorne

EXECUTIVE SUMMARY

ECOassistance were commissioned to undertake a Potential Bat Roost Assessment and subsequent bat emergence surveys on a house and detached garage at 11 Court Lodge, Shorne, Gravesend, DA12 3EQ.

The main findings of the potential bat roost assessment surveys were as follows:

1. The main house and garage both have 'moderate' bat roost potential; and
2. A minimum of two further bat emergence surveys are required to determine presence or likely absence of bats from both buildings.

The main findings of the bat emergence surveys were as follows:

1. Low levels of bat activity was recorded;
2. Five species of bat were found to be present including two species that are known to be light averse; and
3. One singleton common pipistrelle bat uses the main house for roosting.

It is concluded that:

- In order for the proposed works to go ahead lawfully any adverse impacts to bats and their roosting, commuting and foraging habitats will need to be mitigated; and
- The installation of two bat boxes and the reinstatement of a modified bat roosting space behind the newly installed composite cladding will ensure there is no net loss of roosting habitat and that the works result in a net gain for local bats.

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Date of Completion:	02/09/2024	
Doc. Version Control:	1.0	
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DISCLAIMER

This report considers the instructions and requirements of the client and is not intended for and should not be relied upon by any third party.

In accordance with current good practice guidance, the results contained within this report can be relied on for decision-making purposes without the need to be updated for up to six-twelve months providing there is no significant change in land use or land management in that time.

Interpretations and recommendations contained in this report represent the author's professional opinions. They are based on currently accepted industry practices and personal experience. This is a working document and must be updated if development proposals change, or new information become available.

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INTRODUCTION

ECOassistance were commissioned by Rebecca Horne & Jeremy Johnson (hereafter referred to in this report as: the client) to undertake a Potential Bat Roost Assessment (PBRA) and two bat emergence surveys (BES) at 11 Court Lodge, Shorne, Gravesend, DA12 3EQ (hereafter referred to in this report as: the site). The location of the survey buildings are shown in Figure 1 below and will hereafter be referred to as the main house and the detached garage as per the figure.

Figure 1: Location of the survey buildings



BES inform planning applications where proposed works have the potential to impact bats, their roosts and foraging and commuting habitats, all of which are protected by law under The Conservation of Habitats and Species Regulations 2017. Bats and their roosts are also protected under the 1981 Wildlife & Countryside Act (as amended). Further information on the relevant legislation protecting bats is provided in the appendix of this document.

The summary of the planning application for the site is provided below:

Demolition of the current detached garage, replace with a double storey side extension, a single storey side extension with updated cladding and windows.

The BES follows on from a Potential Bat Roost Assessment (PBRA) undertaken immediately before the survey on 20/07/24 during which the main house and detached garage were deemed to have moderate bat roost potential (BRP).

Buildings or structures with moderate BRP require a minimum of two BES to determine likely absence of roosting bats for planning purposes. When bat roosts are identified further BES may be required to properly characterise the roost(s) for the purposes of applying for a mitigation licence from Natural England (NE) should one be required. The Local Planning Authority (LPA) must be satisfied that a NE licence application will be successful in order to grant planning permission.

OBJECTIVES

The objectives of the PBRA report are to:-

- Assess the potential for bats to be roosting within trees and structures within the site;
- Assess the potential for bats and which species to be flying over or near to the site and for what purpose;
- Determine which trees, structures; and commuting and foraging habitats are likely to be impacted by the proposals in such a way as would be deemed an offence under current legislation;
- Detail what level of further bat survey effort (if any) will need to be undertaken to inform potential impacts to bats; and
- Outline avoidance methods if appropriate.

The objectives of the BES report are to:-

- Assess the presence or likely absence of bat roosts within the buildings;
- Assess how bats are using the areas on and around the site for foraging and commuting;
- Characterise roost size(s) and type(s) if present; and
- Recommend further courses of action as required to comply with National and International guidelines and legislation.

The planning application involves impact to the buildings within the site, which may contain bats. For reasons of expediency a PBRA survey was carried out on the same day as the first BES survey and was led by the same personnel.

PBRA DESK SEARCH

The PBRA desktop survey includes a review of:

- Photographs and descriptions of the site (these may provide enough information, in combination with aerial photographs, to eliminate the need for further bat survey).
- Maps and aerial photographs, which can be viewed using applications such as Google Maps¹ which also provides a street view option. These allow an ecologist to identify habitats and features that are likely to be important for bats and assess their connectivity. Note when the photographs were taken; if old, conditions may have changed.
- Records of statutory and non-statutory designated sites (where bats form all or part the reason for the designation) can be found on the Multi Agency Geographic Information for the Countryside (MAGIC) website².
- Existing bat survey reports, which can be obtained from the client or may be available from the relevant planning portal.

The Multi-Agency Geographic Information for the Countryside (MAGIC) governmental website which provides geographic information in map form was used to:

- Search for records of protected species within 2km of the site including any granted European Protected Species Licenses (EPSL) for bats;

PBRA SITE SURVEY

The PBRA site survey identifies and records any structures, trees and other features that could be suitable for bats to roost in and any habitats that could be suitable for bats to commute, forage or swarm in/at.

A PBRA includes a detailed inspection of the exterior and interior of a structure to look for features that bats could use for entry/exit and roosting and to search for signs of bats in order to determine the actual or potential presence of bats and determine the need for further survey and/or mitigation. This includes a systematic search to identify potential or actual bat access points and roosting places and to

¹ <https://www.google.co.uk/maps>

² <https://www.magic.defra.giv.uk/>

locate any evidence of bats such as live or dead specimens, bat droppings, urine splashes, fur oil staining and/or squeaking noises.

Where potential suitability is identified within structures/trees/surrounding habitats this is scored against assessment criteria presented in Table 1 (below).

Bat survey equipment that was utilised during the site survey includes:

- Binoculars;
- A powerful torch;
- A headtorch;
- A caving helmet;
- An extendable mirror;
- A ladder;
- A laser range finder;
- A temperature/humidity logger (Batlogger M2),
- An endoscope;
- Sample collection pots for eDNA analysis;
- A flir one thermal imaging device;
- An android tablet/phone for taking photos and recording notes; and
- Biosecurity measures including bat handling gloves and face masks.

Table 1: Guidelines for assessing potential bat suitability

Bat Conservation Trust

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute). b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance. c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i>, 2016 and Jansen <i>et al.</i>, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.		

The PBRA was conducted by ecologist Edward Clark and assisted by Matt Kelk and Jack Clark. Edward has more than 14 years professional and voluntary experience surveying for bats and has extensive experience in site assessment including ground-based and aerial tree surveys and cave and bridge inspections. Edward is registered to use a Level 2 Class licence (2018-33670CLS-CLS) and has been named on site-specific bat mitigation licenses.

The PBRA survey was undertaken on 20/07/24 during daylight hours in fair weather conditions.

The survey buildings were assessed for the perceived bat roosting potential (BRP) as well as if the presence of roosting bats could be confirmed. Surrounding habitats were assessed for their potential to be used by roosting, commuting and foraging bats.

The assessment takes into consideration the design and construction of the buildings, the size and location of potential features and access points, the position, aspect, geographical location, surrounding land use and adjacent landscape connectivity as well as if bat field signs are present. The assessment follows criteria set out in National guidance (Collins, 2023) published by the Bat Conservation Trust (BCT), as well as guidance published by English Nature and CIEEM.

Even when a tree or structure contains a 'confirmed roost' it and surrounding habitats will be categorized as:

- high potential;
- moderate potential;
- low potential; or
- negligible potential

to determine the level of further survey effort required.

BES carried out by ECOassistance follow the most up-to-date published good practice guidance³ for survey effort and methodology.

The surveys were led by Edward Clark and Charlie Birch alongside assistant surveyors Jack Clark and Matt Kelk.

Charlie has five years professional experience surveying for bats and is a regular bat survey lead for surveys utilising Night Vision Aids (NVAs).

Assistant surveyors Matt Kelk and Jack Clark have been carrying out bat surveys for ECOassistance and other local ecological consultancies for a combined total of more than 13 years.

Two emergence surveys were undertaken on the evenings of 20/07/24 and 12/08/24 from 15 minutes before sunset until 90 minutes afterwards in favourable weather conditions.

In line with the recently published Bat Conservation Trust (BCT) Interim Guidance Note⁴, where required, extra surveyor/survey positions were created through the use of an unmanned (Canon) infra-red camera system with infra-red torches/illuminator rigs⁵.

Dusk emergence surveys are preferred to dawn re-entry surveys following the recommendation to 'transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys, in favour of dusk surveys supported by NVAs' as set out in the Interim Guidance Note.

Bat survey equipment including Batlogger M2 bat detectors and Canon XA11, Canon XF and Canon XA20 infra-red video cameras with infra-red lighting rigs were used. Surveyors and camera rigs were positioned around the outside of the building ensuring as many aspects as possible were visible and that bats entering or exiting the structure would be readily observed. The surveyors and camera positions for the surveys are shown in Figures 2 and 3 below⁶.

³ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London

⁴ *Use of night vision aids for bat emergence surveys and further comment on dawn surveys* Bat Conservation Trust (May 2022)

⁵ *The guidance note supersedes the 4th edition Good Practice Guidelines* (Collins, 2023).

⁶ *Images produced courtesy of Bing Maps (Map data ©2024 Microsoft).*

Figure 2: Surveyor/camera positions and indicative field of view (white dotted lines) for survey one

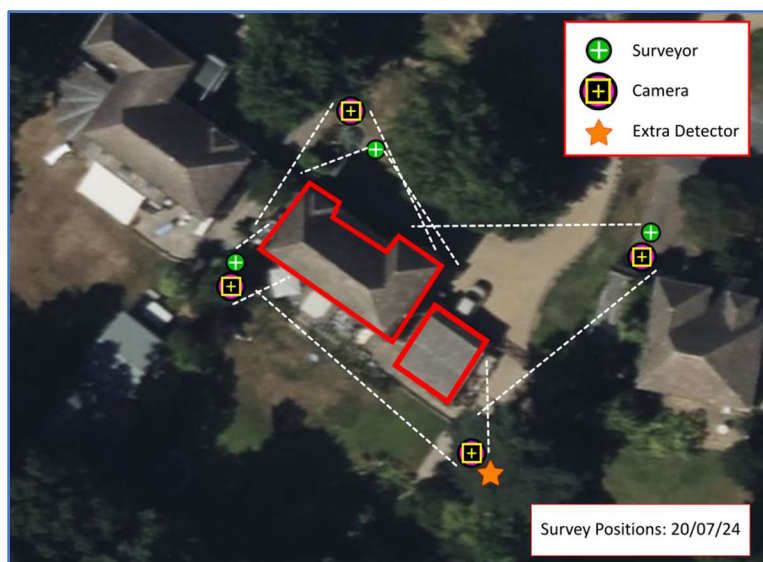


Figure 3: Surveyor/camera positions and indicative field of view (white dotted lines) for survey two



The use of survey results forms is discouraged during ECOassistance BES to ensure surveyors are distracted as little as possible from watching trees and structures for emerging bats. Notes on location, appearance, and foraging and commuting areas are recorded in the summary section of the survey results form at the end of the survey. The taking of 'voice notes' on the Batlogger M2 detectors is encouraged to record memorable bat activity as a partial replacement of the survey forms. Due to the use of NVA's surveyors are encouraged to record emergences or possible emergences only on the survey forms during the surveys to aid the video review process.

Bat calls are automatically recorded by the detectors to enable sound analysis where needed and post-operative sound analysis is carried out by Charlie Birch using BatExplorer software. A screenshot of the bat recordings taken from the BatExplorer programme is provided in addition to the survey forms in the appendix.

Video review is carried out by Charlie Birch and Jack Clark using VLC media player.

The UK Bat Mitigation Guidelines (CIEEM 2023) assessment criteria and BCT Good Practice Guidelines and professional judgement is used to assign a level of importance to any bat roosts identified and assess the importance of assemblages and commuting and foraging habitats in order to:

- predict the level of impact on bats;
- determine suitable and proportionate avoidance, mitigation and enhancement measures.

CONSTRAINTS AND LIMITATIONS

The desk study is not comprehensive because species and habitat types especially ephemeral or migratory species may be present but under recorded or have been missed entirely. A data search from the Local Ecological Records Centre (LERC) was not commissioned and is not likely to be required at this stage of the application; but will be required to support a EPSL application should one be needed at a later date.

Measurements taken from online mapping tools may not be exactly accurate, but this is the most proficient method available to the desktop surveyor. Measurements have been rounded up or down to the nearest whole number for reporting.

Records of protected species are often submitted with six figure grid reference co-ordinates which is only accurate to within 100m.

It is standard practice to assess a structure from the ground for a PBRA survey and identify PRF for bats but there could be PRF not visible from the ground.

Long eared bats of the Plecotinae often do not echolocate, instead making use of their relatively good eyesight to navigate. As a result, long eared bats more than any other UK species are likely to be under recorded during activity or emergence and re-entry surveys. It should be noted however that long eared bats are distinctively larger and have different flight characteristics and habits which to a trained observer, set them apart from other species which might be found roosting in buildings or structures.

The long eared bats recorded on this site are assumed to be brown long eared bat *Plecotus auritus* due to the known distribution of long eared bat species. Grey long eared bats *Plecotus autriacus* do not occur in Kent and are found only near coastal sites elsewhere in England.

PBRA RESULTS

PBRA DESK SEARCH

There are no records of European Protected Species Licence (EPSL) applications for bats which have been granted within 2km of the site.

SURROUNDING HABITATS

The southern boundary of the site is adjacent to deciduous woodland which is a favoured habitat for bats. The habitats present within the site include grassland, buildings, hardstanding and occasional mature trees to the north.

Beyond the site to the north, east and west the surrounding habitat is residential but street lighting appears to be absent from the Court Lodge close. Artificial light sources that are likely to be present at night include car headlights and internal and external home house and garden lighting.

The habitats to the north, east and west of the site appear to contain low value foraging and commuting habitats which have low potential to be used by light averse bats.

The woodland habitat adjacent to the south of the site has high potential to be used by commuting, foraging and roosting bats. Light averse species of bats may be present.

PBRA SITE SURVEY

11 Court Lodge is a two-storey house built of brick with a main section of roof which runs generally northeast – southwest, is hipped and covered with tiles. There is a smaller outshot roof section in the western corner of the house which runs perpendicular to the main section and is also hipped with clay tiles. The windows and doors are of UPVC and the glazing therein make-up a significant proportion of the external elevations.

Adjacent to the northwest of the house is a detached, single storey garage building which is of brick construction with a tiled roof and double up-and-over garage doors to the front.

PBRA ASSESSMENT

The house and garage are assessed as having 'moderate' BRP. The justification for this assessment is provided in the table below.

Buildings with moderate bat roost potential require at least two further bat emergence surveys to be undertaken in accordance with good practice guidance to determine likely absence of roosting bats to a level that is deemed satisfactory for planning purposes.

Table 2: Notable features assessed for bat roost potential

Notable Feature	Description	Image
1	Externally the house and garage are generally in good decorative order with no cracks visible in the external brickwork. There is a relatively large proportion of glazing to the main house but no evidence of bat presence was found during an extensive search of windows, ledges and other smooth surfaces. At the corners of hanging tile clad sections and where roof sections there are many gaps which might offer PRF to bats. Gaps are numerous but an absence of bat field signs surrounding and beneath would suggest that large numbers or a high conservation roost are absent.	
2	Some bird boxes are affixed to both buildings. These could provide bat roosting spaces but an inspection with a torch and/or endoscope of all bird boxes found them to be absent of bat field signs.	

		
3	Internally the loft void is relatively clean and tidy. The floor has been boarded and there are relatively large areas of clean and empty floor space. There is also a pile of stored items towards the eaves on the northeastern side. On top of the clean floor and the flat surfaces of the stored items bat field signs including droppings and urine staining would have been conspicuous but none were found.	 
4	Access points are readily available from the outside into the loft space. The relatively high number of gaps creates some air movement which is unfavourable to open roosting species which require and a stable microclimate for roosting.	

5	Spider webs are present throughout indicating that bats do not make use of the internal space for flight. The spider webs along with an absence of field signs throughout suggest that bats do not use the internal space and that open roosting species are likely absent	
6	The roof of the garage has a rear section comprising a single layer of corrugated, cementitious roofing materials. The lack of an internal lining means that there are no potential crevices to be used for roosting in the rear section of roof. The smaller front facing roof pitch does have an interior 1F felt lining and therefore has potential to be used by crevice dwelling species. There are a also a number of potential access points visible on the outside which might allow access to the space between tile and felt.	

7	To the northeast of the main house are two mature trees. One of them, a hornbeam has cracks and crevices which may offer PRF to bats.	
8	A small brook runs alongside the house and garage. The brook increases the potential for bats by promoting additional invertebrate prey species.	

TREES WITHIN THE SITE

Two large, mature trees are present near to the house but these are unlikely to be adversely impacted and will continue to have the same functionality. Further survey on the trees is not required.

BES RESULTS

During the bat emergence surveys five species of bat were recorded flying over or near to the site. Species observed included common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula*, brown long eared bat and an unidentified myotis bat *Myotis sp.* Brown long eared bats and bats of the myotis genera *Myotis spp.* are known to be light averse.

A peak count of one bat was recorded emerging from the main house during survey one. No bats were seen emerging from either building at any other time during the surveys.

The flight pattern and echolocation call of the emerging bat from the south facing elevation indicates that it is a common pipistrelle.

Screenshots taken from the infra-red video footage are provided below with the location of the bat emergence/roost access points and the direction of flight of the emerging bat(s) indicated.

Figure 4: Emergence point of common pipistrelle from south facing elevation of the main house at 21:24 (taken from IR camera located in southwest corner of the site)



CONCLUSIONS AND RECOMMENDATIONS

The activity levels recorded over the course of the surveys were relatively low.

Myotis sp. and a brown long eared bat were recorded during the surveys. These species are light averse and so there is potential for adverse impacts to the foraging and commuting routes of bats through additional artificial lighting at the site.

Commuting and foraging routes are protected by law and adverse effects from additional artificial lighting should be mitigated in accordance with guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals (ILP, 2018). These are detailed in the mitigation section below.

The initial survey was undertaken in ideal conditions and within the peak maternity period for the species which emerged. A single bat emerged and any bats that were present were recorded in low numbers. The results of the surveys undertaken indicate that there is not a maternity colony within the site or in the immediate surrounding area.

An assessment of the conservation status of the bat roost present is provided below.

ROOST SIGNIFICANCE

The main house has been found to contain a day roost of one common pipistrelle bat which roosts sporadically in the south facing elevation near the soffit box.

Common pipistrelle bats are considered to be widespread in all geographies. A day roost of low numbers (one individual) of common pipistrelle bats is deemed to be of local importance only.

Potential impacts on the day roosts that are present are identified in table 3 below:

Table 3: Assessment of impacts on day roost

Roost to be impacted	Value of roost	Impact	Likely significance
Day roost of low number of common pipistrelle bat (one individual)	Local	Hanging tiles are to be removed and replaced with composite timber cladding. Likely to result in direct impact to the roost entrance/roosting space. Modification of the roost and access point to the extent that functionality is unlikely to remain the same leading to roost loss	Negligible/local; unlikely to be the only day roost used

Despite the low significance of the potential loss of the roosting space in terms of the demography of the species, the roost is still protected by law and works to impact it must be avoided if possible; if not the works must be licensed by Natural England so that an otherwise unlawful act can be undertaken lawfully.

MITIGATION: DAY ROOST OF LOW NUMBERS OF COMMON PIPISTRELLE

In order for works to be carried out at the site, any impacts to the bat species that are present must be reduced to a non-significant level. Where this cannot be achieved, appropriate compensation must be offered.

1. A licence will be needed in order to impact a known bat roost.
2. A bat low impact class licence (BLICL) to impact the roost will be suitable for the type of bat roost present or alternatively a full mitigation/derogation licence can be sought from Natural England.
3. The licence to impact or destroy the bat roosts must be granted by Natural England (NE) prior to any works which might affect them are started.
4. The licence application can only be made once planning permission has been granted.

In terms of mitigation and compensation requirements for impacting a day roost of low numbers of common pipistrelle individuals there is flexibility over provision of bat boxes and no conditions about timing or monitoring (English Nature: Bat Mitigation guidelines).

The following mitigation measures are likely to be conditions of any mitigation licence.

5. A bat box will be provided as mitigation prior to destruction or modification of the roost.
6. Bitumen type 1F roofing felt or a bat safe membrane approved by Natural England (certificate must be provided to the licensing authority) must be used where bats are known to be roosting/when reinstating or recreating a bat roost.
7. A replacement roosting space – either an integrated bat box or one affixed to an outside elevation – will be incorporated into the design of the scheme and be located as near as possible to the roosting space which is to be lost in order to encourage re-uptake post construction.

MITIGATION: ARTIFICIAL LIGHTING

Adverse effects from additional artificial lighting will be mitigated as below:

1. Boundary vegetation should not be illuminated so that dark flight corridors for bats are retained;
2. Directional lighting should be used to avoid unwanted spill into surrounding habitats;
3. Any external lighting should be operated with motion sensors where possible;

4. Metal halide and fluorescent sources should not be used;
5. A warm white spectrum of lamp should be used. Blue light should not be used;
6. Internal luminaires that are in close proximity to windows should be recessed, where possible, to reduce external glare and light spill and/or low emissivity glass should be used in the windows if possible; and
7. Artificial light must not be allowed to shine towards the entrances of bat boxes and any other reinstated/recreated roosting space.

ENHANCEMENTS

In order to ensure the works deliver a net gain for bats in line with National Planning Policy the following site enhancements are recommended:

1 x multi-purpose bat box suitable for pipistrelle bats should be affixed to a mature tree near to the wooded area at the rear of the domestic garden.

Bat boxes should be of the woodcrete type to ensure longevity and erected in a sheltered location, in close proximity or with a strong unlit linear connection to good quality foraging habitat. For all types of boxes, Collins et al. (2020) found that the box height most frequently occupied was 4m (2020). For practical reasons a height of at least 3 metres is recommended.

REFERENCES

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

BAT MITIGATION GUIDELINES: A guide to impact assessment, mitigation and compensation for developments affecting bats (Beta version 1.0: June 2021) CIEEM

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

Bat Conservation Trust website www.bats.org.uk

Google, (2019) Google Earth https://www.google.co.uk/intl/en_uk/earth/. United Kingdom.

Bat Conservation Trust (2009) Bats and Lighting in the UK: Bats and the Built Environment Series Collins, J. (ed.) (2016).

www.communities.gov.uk/publications/planningandbuilding/nppf United Kingdom

Shepherd, P. and Green, J. (2002). Planning and implementing ecological surveys. In Practice, Bulletin of the Institute of Ecology and Environmental Management.

CIEEM (2015) Guidelines for Ecological Report Writing. CIEEM, Winchester.

Entwistle, A.C., Racey, P.A. & Speakman, J.R., 1997, Roost selection by the brown long eared bat *Plecotus auritus*. *Journal of Applied Ecology*, 34, 399-408.

Bat Conservation Trust (2009) Bats and Lighting in the UK: Bats and the Built Environment Series Collins, J. (ed.) (2016).

- The level of protection afforded to protected species varies dependent on the associated legislation. A full list of protected species and their specific legal protection is provided within the Schedules and/or Sections of the associated legislation. Case law may further clarify the nature of the legal protection afforded to species.
- The legal protection afforded to protected species overrides all planning decisions. European Protected Species (EPS) - and the Conservation of Habitats and Species Regulations 2010 (as amended)
- European Protected Species (EPS) are afforded the highest level of protection through the Conservation of Habitats and Species Regulations 2017. EPS are also afforded legal protection by parts of the Wildlife and Countryside Act 1981 (as amended).
- In general, any person and/or activity that:
 - Damages or destroys a breeding or resting place of an EPS. (This is sometimes referred to as the strict liability or absolute offence);
 - Deliberately captures, injures or kills an EPS (including their eggs);
 - Deliberately disturbs an EPS, and in particular disturbance likely to impair animals' ability to survive, breed or nurture young, their ability to hibernate and migrate and disturbance likely to have a significant effect on local distribution and abundance; intentionally or recklessly disturbs an EPS while occupying a structure or place used for shelter and/or protection (Wildlife and Countryside Act 1981)¹ (as amended); and
 - Intentionally or recklessly obstructs access to any structure or place that an EPS uses for shelter or protection (Wildlife and Countryside Act 1981) (as amended). may be guilty of an offence.
- The legislation applies to the egg, larval and adult life stages of great crested newts and to bat roosts even when they are not occupied.
- Actions affecting multiple animals can be construed as separate offences and therefore penalties can be applied per animal impacted.
- Under certain circumstances licences can be granted by the Statutory Nature Conservation Organisation (Natural England in England) to permit actions that would otherwise be unlawful.
- There are some very specific defences associated with the Conservation of Habitats and Species Regulations 2017. However, these are unlikely to apply to construction related projects. The Sections of the Regulations provide further details of these defences.
- The Wildlife and Countryside Act (1981) includes defence for those aspects of the legislation that apply to an EPS. These defences are unlikely to apply to construction related projects and

do not apply to those acts included in the Conservation of Habitats and Species Regulations 2010 (as amended). The Schedules of the Act provide further details of defences.

- Local authorities have obligations under sections 40 and 41 of the Natural Environment and Rural Communities Act (NERC) 2006 to have regard to the purpose of conserving biodiversity in carrying out their duties. The majority of EPS are listed on Section 41 the NERC Act.
- The Natural Environment and Rural Communities Act 2006 (as amended)
- Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006) requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers, including local and regional authorities, in implementing their duty under Section 40 of the act to have regard to the conservation of biodiversity in England when carrying out their normal functions. S41 lists 56 habitats and 943 species of principal importance. Section 42 of the NERC Act relates to Wales.
- Wildlife and Countryside Act 1981 (as amended)
- The level of protection afforded to species listed on the Wildlife and Countryside Act 1981 (as amended) varies considerably. ‘Fully protected species’, such as water vole, are afforded the highest level of protection. Any person who intentionally kills, injures, or takes ‘fully protected species’, or who intentionally or recklessly damages or destroys a structure or place used for shelter and/or protection, disturbs the animal whilst occupying a structure and/or place used for shelter and protection, or obstructs access to any structure and/or place used for shelter or protection is likely to have committed an offence. Other species, such as common reptiles, are afforded less protection and for these species it may only be an offence to intentionally or recklessly kill or injure animals.
- All active bird nests, eggs and young are protected from intentional destruction. Schedule 1 listed birds are also protected from intentional and reckless disturbance whilst breeding.
- Schedule 9 of The Wildlife and Countryside Act lists plant species for which it is an offence for a person to plant, or otherwise cause to grow in the wild. Schedule 9 also lists animals for which it is an offence to release into the wild. The National Planning Policy Framework
- Planning policy requires new developments to take into consideration our local and national wildlife. With the objective to maintain or increase the viability of the site for wildlife. The existing proposals are considered to determine whether Habitat enhancements are offered and whether they are adequate to meet the policy requirements. Again, national, regional, county and borough policies are considered.
- The National Planning Policy Framework states that the planning system should contribute to and enhance the natural and local environment by minimizing impacts on biodiversity and delivering net gains in biodiversity where possible. Ecological habitat enhancements measures need to be over and above any mitigation measures.

BAT SURVEY FORM 2024		Surveyor name	J Clark
Site Name- visit no.	11 court lodge 1	Date	20/07/2024
Start Time	20:48	Finish Time	22:33
Sunset Time	21:03	Detector number/colour	green
Position Relative to Structure	south west of building	Weather Conditions pre sunset	wind 0 cloud 10
Air Temperature Start	21	Air Temperature End	19
Brief summary (fill out at end of survey)	light foraging activity. p45's and p55's present.		
*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislers Noctule = Leis; Serotine = se			
**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.			
Time	Species*	Activity**	Notes including flight direction (if seen)
21:09	p45	hns	
21:24	snh	e	emerged out of the back of the building from the hanging tiles flying south towards the back of the garden
			Confirmed as an emergence during video review

	P45		Confirmed as a p45 during sound analysis
21:27	p45	c	flying around west the side of the building
21:58	p55	hns	

Play Del	Recording	Recorded	Species	Sugg. Species 1st	Sugg.Spec	Length	#	Call	Quality	Peak	F	M	F	Min	F	Call	le	Distar	Call shape	Location
▶	06070005_1	20/07/2024	Select...	Myotis myotis	49	1	3.23	9	72.8	48.1	74.6	46.2	4.0	90	↘	fm-d(5)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070005_2	20/07/2024	Select...	Plecotus austriac	25	1	3.23	1	3.5	29.3	40.1	18.0	2.7	0	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070006	20/07/2024	Select...	Pipistrellus pipist	39	1	3.09	3	20.8	48.0	77.1	45.0	3.7	134	↘	fm-d(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070007_1	20/07/2024	Select...	Pipistrellus pipist	57	1	3.81	9	24.6	45.4	53.1	43.5	7.0	221	↘	fm-d(4)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070007_2	20/07/2024	Select...	-	Nal	1	3.81	1	6.7	94.1	96.0	87.8	8.5	0	↘	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070012_1	20/07/2024	Select...	Pipistrellus pipist	63	1	4.11	7	24.6	45.1	52.3	43.6	7.0	414	↘	fm-d(4)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070012_2	20/07/2024	Select...	-	Nal	1	4.11	1	6.9	90.0	93.8	84.0	3.7	0	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070013	20/07/2024	Select...	Pipistrellus pipist	46	1	3.08	3	22.6	45.3	55.5	43.8	11.4	140	↘	cf-n(3)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070021	20/07/2024	Select...	Pipistrellus pipist	61	1	3.00	4	23.8	47.5	48.6	46.5	6.3	331	↘	cf-n(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070022	20/07/2024	Select...	Pipistrellus pygrr	47	1	3.98	7	99.0	59.0	81.1	57.0	4.1	220	↘	fm-l(4)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070024_1	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	71	1	6.09	12	99.0	49.1	79.0	47.1	5.0	90	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070024_2	20/07/2024	Select...	Pipistrellus pygrr	62	1	6.09	4	99.0	58.4	89.6	57.7	4.4	205	↘	fm-d(3)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070025_2	20/07/2024	Select...	-	Nal	1	3.11	2	12.9	90.4	93.8	87.9	4.0	171z	↘	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070025_1	20/07/2024	Select...	Pipistrellus pipist	31	1	3.11	3	47.5	50.3	53.0	48.4	4.4	461	↘	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070026_1	20/07/2024	Select...	Pipistrellus pygrr	68	1	8.41	18	99.0	57.6	77.4	55.9	4.0	198	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070026_2	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	78	1	8.41	16	99.0	47.6	70.2	46.8	5.0	90	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070027	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	61	1	5.62	10	99.0	49.2	84.2	48.2	3.0	304	↘	fm-d(5)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070029	20/07/2024	Select...	Pipistrellus pygrr	64	1	4.61	6	99.0	56.8	90.5	54.7	4.0	177	↘	fm-d(6)			51.41202 / 0.4301	
▶	06070030_1	20/07/2024	Select...	Pipistrellus pygrr	57	1	3.27	11	39.3	56.6	59.3	56.1	5.0	90	↘	cf-e(7)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070030_2	20/07/2024	Select...	-	Nal	1	3.27	1	6.9	89.3	96.4	85.5	3.2	0	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070031	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	67	1	5.28	15	84.3	47.9	55.9	46.4	5.0	100	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070032	20/07/2024	Select...	Pipistrellus pygrr	72	1	6.24	32	77.4	55.6	62.6	54.1	6.0	80	↘	cf-e(12)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070033	20/07/2024	Select...	Pipistrellus pygrr	61	1	8.66	32	99.0	55.0	65.0	53.0	4.0	90	↘	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070034	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	58	1	4.74	8	84.8	47.0	57.0	45.8	5.0	313	↘	fm-d(6)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	06070038	20/07/2024	Select...	Pipistrellus pipist	56	1	4.14	6	65.1	50.6	62.6	49.5	4.8	394	↘	fm-d(3)			51.41191 / 0.43005	
▶	06070039	20/07/2024	Select...	Pipistrellus pipist	53	1	5.33	9	96.5	50.4	77.0	48.4	4.0	225	↘	fm-d(4)			51.41191 / 0.43005	

BAT SURVEY FORM 2024		Surveyor name	M kelk
Site Name- visit no.	11 court lodge 1	Date	20/07/2024
Start Time	20:48	Finish Time	22:33
Sunset Time	21:03	Detector number/colour	gold
Position Relative to Structure	ENE	Weather Conditions pre sunset	wind 1 cloud 10
Air Temperature Start	21	Air Temperature End	19

Brief summary (fill out at end of survey)		low activity levels over all. a few sightings, no patterns to speak of.	
*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislers Noctule = Leis; Serotine = se			
**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.			
Time	Species*	Activity*	Notes including flight direction (if seen)
21:23	58.5khz	hns	check xa white
			No emergences were observed at this time during video review
21:24	57.4khz	hns	check xa white
			No emergences were observed at this time during video review
21:25	p45	c	travelling from road towards woodland
21:27	60khz	F	came from road and over my head towards the garage
21:32-34			away from camera
			No emergences were observed at this time during video review
	Myo		Confirmed as present during sound analysis

Play Del	Recording	Recorded	Species	Sugg. Species	1st Sugg. Specie	Lengt	#	Call Quality	Peak	Max F	Min F	Call le	Distar	Call shape	Location		
▶	04610000	20/07/2024	Select...	-	Nal	1	2.01	0	1.0	0.0	0.0	0.0	0		51.41199 / 0.43052		
▶	04610001	20/07/2024	Select...	Myotis nattereri		32	1	2.00	5	17.2	21.3	28.4	14.3	425	fm-l(2)	Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610002	20/07/2024	Select...	Pipistrellus pygrr		51	1	2.77	10	78.9	59.3	106	56.3	3.0	80	fm-d(8)	51.412 / 0.43048
▶	04610003	20/07/2024	Select...	Myotis alcathoe		47	1	2.01	9	22.7	60.5	71.8	58.2	2.0	105	fm-l(8)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610004	20/07/2024	Select...	Myotis alcathoe		28	1	2.00	3	13.0	57.9	81.8	56.4	3.0	210	fm-l(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610005	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		67	1	4.03	16	68.9	48.1	82.7	46.1	4.0	84	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610006	20/07/2024	Select...	Myotis alcathoe		61	1	2.84	17	26.9	58.9	86.1	57.2	3.0	60	fm-l(1)	51.41201 / 0.43048
▶	04610007_1	20/07/2024	Select...	Myotis alcathoe		30	1	2.00	2	17.2	61.9	71.6	59.3	2.7	220	fm-l(2)	51.412 / 0.43047
▶	04610007_2	20/07/2024	Select...	-	Nal	1	2.00	1	4.6	87.8	88.1	84.4	2.1	0	fm-l(1)	51.412 / 0.43047	
▶	04610008	20/07/2024	Select...	Pipistrellus pygrr		55	1	2.00	5	67.2	58.6	121	56.0	4.0	105	fm-d(4)	51.412 / 0.43047
▶	04610009	20/07/2024	Select...	Pipistrellus pygrr		69	1	2.36	7	99.0	56.8	89.4	55.9	4.0	80	fm-d(5)	51.41201 / 0.43047
▶	04610010	20/07/2024	Select...	Pipistrellus pygrr		65	1	3.50	15	99.0	58.0	90.8	57.1	4.0	75	fm-d(1)	51.41201 / 0.43046
▶	04610011	20/07/2024	Select...	Vespertilio murin		58	1	2.00	4	23.6	20.3	22.0	19.6	12.7	296	cf-e(2)	51.412 / 0.43046
▶	04610012	20/07/2024	Select...	Vespertilio murin		41	1	2.00	3	21.7	21.6	22.3	20.4	14.6	721	cf-e(3)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610013	20/07/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610014	20/07/2024	Select...	Myotis mystacin		51	1	2.06	7	24.9	56.6	71.3	55.0	3.0	221	fm-l(7)	51.41196 / 0.43048
▶	04610015	20/07/2024	Select...	Myotis alcathoe		53	1	2.09	12	30.7	55.7	63.8	54.2	2.0	70	fm-l(1)	51.41196 / 0.43047
▶	04610016	20/07/2024	Select...	Myotis alcathoe		45	1	2.97	6	78.6	56.0	89.5	54.3	3.0	193	fm-l(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610017	20/07/2024	Select...	Pipistrellus pygrr		54	1	3.29	13	67.8	56.3	70.5	55.4	3.0	80	fm-l(9)	51.41201 / 0.43045
▶	04610018	20/07/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610019	20/07/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610020	20/07/2024	Select...	-	Nal	1	2.01	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610021	20/07/2024	Select...	Pipistrellus pygrr		60	1	3.49	4	60.1	52.2	62.0	51.4	4.4	522	fm-d(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610022	20/07/2024	Select...	Pipistrellus pygrr		75	1	7.37	28	99.0	56.4	88.0	55.1	5.0	64	fm-d(2)	51.41183 / 0.43033
▶	04610023	20/07/2024	Select...	-	Nal	1	2.02	1	8.2	92.3	92.6	89.6	6.4	0	cf-n(1)	Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610024	20/07/2024	Select...	Pipistrellus pipist		52	1	2.01	3	22.3	44.8	54.5	44.3	4.4	623	fm-d(3)	51.4118 / 0.43037
▶	04610025	20/07/2024	Select...	Pipistrellus pipist		44	1	7.87	12	62.6	47.0	93.0	42.3	3.0	314	fm-d(7)	51.41183 / 0.43037
▶	04610026	20/07/2024	Select...	Pipistrellus pygrr		64	1	7.49	18	98.1	57.2	71.8	56.2	4.0	80	fm-d(1)	51.41194 / 0.43048
▶	04610027	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		68	1	3.63	15	76.5	46.8	51.0	46.2	3.0	100	cf-n(6)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610028	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		79	1	4.29	20	59.8	48.4	62.8	47.6	4.0	85	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610029	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		60	1	4.29	17	43.1	49.2	62.6	48.3	3.0	80	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610030	20/07/2024	Select...	Pipistrellus pipist		65	1	2.01	6	24.0	46.9	50.1	45.9	6.0	193	fm-d(3)	51.41196 / 0.4305
▶	04610031	20/07/2024	Select...	Pipistrellus pipist		46	1	2.01	2	20.9	47.4	48.9	46.7	4.8	277	cf-n(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610032	20/07/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610033	20/07/2024	Select...	Myotis mystacin		53	1	3.50	24	42.1	45.7	76.9	30.0	5.0	95	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610034_1	20/07/2024	Select...	Myotis myotis		49	1	2.00	6	23.7	57.1	64.1	56.3	3.0	365	fm-l(4)	51.41196 / 0.4305
▶	04610034_2	20/07/2024	Select...	-	Nal	1	2.00	1	6.4	90.0	90.4	87.0	4.8	0	cf-n(1)	51.41196 / 0.4305	
▶	04610035	20/07/2024	Select...	Pipistrellus pipist		63	1	2.00	11	23.8	47.3	51.3	46.5	5.0	100	fm-d(5)	51.41196 / 0.4305
▶	04610036	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		63	1	2.01	4	43.5	46.1	48.1	45.5	6.3	204	cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610037	20/07/2024	Select...	Nyctalus noctula		31	1	2.00	1	14.8	19.5	19.9	18.8	14.4	0	cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610038	20/07/2024	Select...	Pipistrellus pygrr		58	1	3.15	12	44.1	55.4	62.4	54.5	5.0	80	fm-d(7)	51.41196 / 0.43049
▶	04610039	20/07/2024	Select...	Pipistrellus pygrr		63	1	4.42	12	84.4	57.0	75.6	55.2	5.0	211	fm-d(7)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610040	20/07/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610041	20/07/2024	Select...	Pipistrellus pygrr		53	1	3.61	13	98.5	56.4	63.4	55.4	5.0	93	cf-n(6)	51.41194 / 0.43048
▶	04610042	20/07/2024	Select...	-	Nal	1	2.01	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610043	20/07/2024	Select...	Pipistrellus pipist		74	1	2.01	6	22.7	47.2	56.9	45.8	5.6	337	fm-d(5)	51.41197 / 0.4305
▶	04610044	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		68	1	2.67	14	60.6	47.0	57.0	45.4	5.0	190	fm-d(8)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610045	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		71	1	2.02	4	41.4	45.3	51.6	44.3	5.5	314	fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610046	20/07/2024	Select...	Nyctalus noctula		69	1	2.01	4	42.7	25.7	27.8	24.4	9.7	311	cf-e(3)	51.41195 / 0.43052
▶	04610047	20/07/2024	Select...	Pipistrellus pygrr		67	1	2.01	8	22.9	53.1	54.4	52.3	6.0	224	cf-e(7)	51.41195 / 0.43046
▶	04610048	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		60	1	5.57	14	52.9	49.7	62.8	48.8	3.0	90	fm-l(6)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610049	20/07/2024	○ Pipistrellus p	Pipistrellus pipist		72	1	5.02	26	43.9	48.1	58.9	47.2	5.0	100	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610050	20/07/2024	Select...	Pipistrellus pipist		40	1	2.00	2	18.1	50.4	55.1	49.5	2.1	450	fm-l(2)	51.41193 / 0.43049

BAT SURVEY FORM 2024		Surveyor name	Edward Clark
Site Name- visit no.	11 court lodge 1	Date	20/07/2024
Start Time	20:48	Finish Time	22:33
Sunset Time	21:03	Detector number/colour	Blue
Position Relative to Structure	North west of building	Weather Conditions pre sunset	wind 0 cloud 10
Air Temperature Start	21	Air Temperature End	19
Brief summary (fill out at end of survey)	Low levels of feeding buzz's and foraging		
*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislars Noctule = Leis; Serotine = se			
**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.			
Time	Species*	Activity*	Notes including flight direction (if seen)
21:24		C	Possible emergence (comment on M2 detector) is amended to a commuting bat during video analysis
	Noc		Confirmed as present during sound analysis

Play Del	Recording	Recorded	Species	Sugg. Species 1st	Sugg. Specie	Length	#	Call	Quality	Peak	f	Max F	Min F	Call le	Distar	Call shape	Location
▶	05190000cmt	20/07/2024								28.9							Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190001cmt	20/07/2024								0.88							Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190000	20/07/2024	Select...	Pipistrellus pygr	66	1	3.87	8	99.0	58.4	102.	57.3	4.0	180	\	fm-d(8)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190002cmt	20/07/2024								28.2							Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190001	20/07/2024	Select...	Pipistrellus pipist	50	1	3.67	16	39.4	47.2	66.0	46.2	3.0	90	\	fm-l(9)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190002	20/07/2024	Select...	Pipistrellus pygr	70	1	4.45	15	99.0	58.4	98.1	57.3	4.0	80	\	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190003cmt	20/07/2024								28.7							Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190003	20/07/2024	Select...	Vespertilio murin	56	1	2.00	6	24.3	19.4	20.9	18.8	16.6	327	—	cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190004	20/07/2024	Select...	Eptesicus serotin	67	1	2.01	9	21.9	26.7	36.0	25.7	7.0	150	\	fm-d(5)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190005	20/07/2024	Select...	Pipistrellus pygr	72	1	4.94	10	99.0	55.5	101.	54.5	4.0	80	\	fm-d(9)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190006	20/07/2024	Select...	Pipistrellus pygr	66	1	2.22	8	53.7	58.0	69.5	57.3	5.0	80	\	fm-d(6)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190007	20/07/2024	Select...	Pipistrellus pygr	66	1	7.43	13	99.0	57.3	85.4	56.7	5.0	80	\	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190008	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	84	1	9.70	20	99.0	47.5	73.7	46.4	4.0	170	\	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190009_1	20/07/2024	Select...	Pipistrellus pygr	67	1	11.8	23	99.0	57.6	90.3	56.4	4.0	170	\	fm-d(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190009_2	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	83	1	11.8	10	99.0	47.7	79.4	47.0	4.0	190	\	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190010	20/07/2024	Select...	Pipistrellus pipist	37	1	2.00	2	59.0	48.9	61.1	48.0	3.5	157	\	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190011	20/07/2024	Select...	Pipistrellus pygr	70	1	11.7	24	99.0	55.8	85.2	54.9	5.0	90	\	fm-d(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190004cmt	20/07/2024								12.2							Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190012	20/07/2024	Select...	Pipistrellus pygr	73	1	3.23	17	51.9	55.3	63.3	54.5	4.0	76	\	fm-d(9)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190005cmt	20/07/2024								10.9							Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190013_1	20/07/2024	Select...	Pipistrellus pygr	64	1	3.08	15	28.9	54.9	64.7	53.8	4.0	80	\	fm-d(8)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190013_2	20/07/2024	Select...	-	Nal	1	3.08	1	6.0	86.6	90.0	84.4	7.5	0	—	cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190014	20/07/2024	Select...	Vespertilio murin	60	1	3.44	4	23.7	24.6	25.5	23.4	11.7	478	—	cf-e(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190015	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	64	1	2.00	6	36.8	46.0	53.8	45.3	4.0	90	\	fm-l(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	05190016	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	71	1	6.33	9	99.0	49.5	83.0	48.6	5.0	211	\	fm-d(9)	Court Lodge, Upper Ifield, Shorne, Gravesham

BAT SURVEY FORM 2024		Surveyor name	Jack Clark
Site Name- visit no.	11 Court lodge 2	Date	12/08/2024
Start Time	20:10	Finish Time	21:55
Sunset Time	20:25	Detector number/colour	gold
Position Relative to Structure	NE Corner	Weather Conditions pre sunset	light wind, cloud 30
Air Temperature Start	26	Air Temperature End	24
Brief summary (fill out at end of survey)	Light commuting and foraging activity mainly over the garage roof. P45 and P55 present.		
*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislers Noctule = Leis; Serotine = se			

**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.

Time	Species*	Activity**	Notes including flight direction (if seen)
	NOC		Confirmed as foraging during sound analysis
	LE		Confirmed as present during sound analysis

Play Delts	Recording	Recorded	Species	Sugg. Species 1st	Sugg Specie	Lengt	#	Call	Quality	Peak	I	Max	F	Min	F	Call	le	Distar	Call shape	Location
▶	04610000	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0.0	0				-	
▶	04610001	12/08/2024	Select...	Vespertilio murin	30	1	2.01	2	11.3	27.0	30.4	19.5	2.9	199	0	↘	cf-e(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610002	12/08/2024	Select...	-	Nal	1	2.01	0	1.0	0.0	0.0	0.0	0.0	0	0					Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610003	12/08/2024	Select...	Nyctalus noctula	67	1	2.01	5	40.4	22.4	24.6	21.1	13.7	346	0	↘	cf-n(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610004	12/08/2024	Select...	-	Nal	1	2.02	0	1.0	0.0	0.0	0.0	0.0	0	0					Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610005	12/08/2024	Select...	Pipistrellus pygrr	52	1	2.59	8	44.4	57.1	67.8	56.2	3.0	166	0	↘	fm-l(5)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610006	12/08/2024	Select...	Myotis bechstein	51	1	5.67	16	99.0	58.5	105	53.2	4.0	90	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610007	12/08/2024	Select...	Myotis alcathoe	46	1	3.30	16	90.1	59.0	88.9	57.1	4.0	65	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610008	12/08/2024	Select...	Myotis alcathoe	47	1	3.41	11	59.2	57.7	96.1	56.2	3.0	70	0	↘	fm-d(6)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610009	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	61	1	2.05	6	35.5	46.3	57.3	45.4	3.9	107	0	↘	fm-d(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610010	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	81	1	5.07	18	97.2	45.3	69.8	44.6	6.0	86	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610011	12/08/2024	Select...	Pipistrellus pygrr	58	1	2.01	6	23.2	54.3	56.9	53.4	5.0	80	0	↘	cf-n(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610012	12/08/2024	Select...	Pipistrellus pygrr	58	1	4.36	7	89.7	56.3	102	53.8	5.0	147	0	↘	fm-d(5)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610013	12/08/2024	Select...	Pipistrellus pipist	45	1	2.01	1	12.7	44.3	52.9	43.9	6.4	0	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610014	12/08/2024	Select...	-	Nal	1	2.01	1	6.0	94.9	104	82.1	3.7	0	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610015	12/08/2024	Select...	Plecotus austriac	61	1	5.39	16	23.0	29.5	49.5	26.3	6.0	140	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610016	12/08/2024	Select...	Pipistrellus pygrr	71	1	2.00	9	99.0	55.8	115	54.7	4.0	109	0	↘	fm-d(8)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610017	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0	0					Court Lodge, Upper Ifield, Shorne, Gravesham
▶	04610018	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	84	1	5.39	28	77.9	44.4	52.2	43.7	6.0	100	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610019	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	63	1	2.46	6	77.2	44.3	49.7	43.0	5.0	287	0	↘	fm-d(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610020	12/08/2024	Select...	Pipistrellus pygrr	69	1	2.01	4	22.0	53.7	59.7	52.7	4.8	107	0	↘	fm-d(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610021	12/08/2024	Select...	Pipistrellus pygrr	76	1	3.14	10	95.0	55.4	98.0	54.6	4.0	84	0	↘	fm-d(9)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610022	12/08/2024	Select...	Pipistrellus pygrr	81	1	4.47	21	87.7	53.2	78.7	52.4	4.0	74	0	↘	fm-d(2)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610023	12/08/2024	Select...	Myotis myotis	55	1	2.00	5	23.4	28.7	37.2	27.7	4.0	260	0	↘	fm-l(5)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610024	12/08/2024	Select...	Myotis alcathoe	40	1	3.52	8	83.6	56.3	60.5	54.8	3.0	359	0	↘	cf-n(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610025	12/08/2024	Select...	Pipistrellus pygrr	68	1	3.62	14	99.0	56.3	77.9	55.3	4.0	80	0	↘	fm-d(8)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610026	12/08/2024	Select...	Pipistrellus pygrr	43	1	3.34	3	81.8	52.1	76.4	51.5	5.5	460	0	↘	fm-d(2)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610027	12/08/2024	Select...	Pipistrellus pygrr	74	1	4.75	18	99.0	52.2	68.0	51.2	7.0	80	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610028_2	12/08/2024	Select...	Plecotus auritus	27	1	2.01	1	5.7	34.5	36.4	30.8	1.6	0	0	↘	fm-l(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610028_1	12/08/2024	Select...	Pipistrellus pipist	64	1	2.01	8	22.9	42.9	43.7	41.9	8.7	232	0	↘	cf-e(7)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610029	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	81	1	3.86	23	56.1	48.4	58.4	47.3	7.0	95	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610030	12/08/2024	Select...	Pipistrellus pygrr	55	1	2.19	10	39.6	51.8	64.1	50.6	3.0	136	0	↘	fm-l(5)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610031	12/08/2024	Select...	Pipistrellus pipist	35	1	2.01	1	12.5	50.3	51.0	49.5	8.5	0	0	↘	cf-e(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610032	12/08/2024	Select...	Pipistrellus pipist	68	1	2.01	10	23.6	48.8	59.0	46.0	4.0	80	0	↘	fm-d(7)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610033	12/08/2024	Select...	Pipistrellus pipist	74	1	2.01	10	23.3	45.8	51.6	44.4	5.0	185	0	↘	fm-d(8)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610034	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	64	1	4.27	16	38.6	44.2	48.0	43.3	6.0	120	0	↘	cf-e(8)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610035	12/08/2024	Select...	Pipistrellus pygrr	75	1	4.38	20	64.0	54.1	60.8	53.2	5.0	84	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610036	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	80	1	6.47	38	90.8	46.9	64.5	45.5	6.0	86	0	↘	fm-d(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610037	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	56	1	2.90	17	47.0	49.6	73.7	47.1	3.0	170	0	↘	fm-l(8)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610038	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	74	1	7.28	36	74.5	48.1	65.0	45.8	5.0	90	0	↘	fm-d(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610039	12/08/2024	Select...	Barbastella barbu	32	1	2.00	3	19.7	29.4	36.3	26.1	3.0	877	0	↘	fm-l(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610040	12/08/2024	Select...	Eptesicus serotin	58	1	2.00	4	23.5	29.0	38.3	27.9	5.1	349	0	↘	fm-l(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610041	12/08/2024	Select...	Eptesicus serotin	62	1	2.30	5	24.2	27.8	38.6	26.8	6.0	266	0	↘	fm-d(3)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610042	12/08/2024	Select...	Eptesicus serotin	68	1	3.66	11	82.9	26.0	37.4	24.4	9.0	150	0	↘	fm-d(9)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610043	12/08/2024	Select...	Nyctalus noctula	69	1	3.58	11	46.1	24.2	30.4	22.7	6.0	135	0	↘	cf-n(7)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610044	12/08/2024	Select...	Pipistrellus kuhlii	53	1	5.98	30	61.1	42.3	43.9	41.3	8.0	110	0	↘	cf-e(21)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610045	12/08/2024	Select...	Pipistrellus pipist	46	1	9.46	48	73.1	42.0	45.8	41.3	6.0	105	0	↘	cf-e(27)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610046_1	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	63	1	4.50	27	77.6	42.1	53.2	41.3	6.0	75	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610046_2	12/08/2024	Select...	Barbastella barbu	29	1	4.50	1	7.6	34.9	42.0	28.9	1.6	0	0	↘	fm-l(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610047	12/08/2024	Select...	Pipistrellus nath.	65	1	2.01	9	23.8	41.5	43.1	40.3	10.0	218	0	↘	cf-e(6)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610048_1	12/08/2024	Select...	Barbastella barbu	28	1	2.00	1	8.6	36.0	40.9	27.8	2.1	0	0	↘	fm-l(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610048_2	12/08/2024	Select...	-	Nal	1	2.00	1	6.8	91.5	92.6	88.5	4.3	0	0	↘	cf-e(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610049	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	67	1	4.07	9	99.0	49.8	81.6	47.6	6.0	100	0	↘	fm-d(8)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610050	12/08/2024	Select...	Nyctalus leisleri	53	1	2.43	18	23.9	27.9	35.8	26.4	8.0	95	0	↘	fm-d(9)		Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	04610051	12/08/2024	Select...	Eptesicus nilsson	56	1	6.16	23	27.9	28.6	36.8	27.2	6.0	146	0	↘	fm-d(1)		Court Lodge, Upper Ifield, Shorne, Gravesham	

▶	04610052	12/08/2024	Select...	Nyctalus noctula	64	1	4.00	11	24.3	25.6	32.2	23.9	12.0	335	cf-n(8)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610053	12/08/2024	Select...	Nyctalus noctula	60	1	5.42	13	73.8	26.3	34.2	24.5	9.0	274	cf-n(9)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610054	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610055	12/08/2024	Select...	-	Nal	1	2.00	1	6.7	91.5	95.3	85.5	6.4	0	fm-a(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610056	12/08/2024	Select...	-	Nal	1	2.01	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610057_1	12/08/2024	Select...	-	Nal	1	2.00	2	12.7	88.3	89.6	86.6	3.2	140	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610057_2	12/08/2024	Select...	-	Nal	1	2.00	1	6.7	93.0	94.1	91.5	5.9	0	cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610058	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610059	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610060_1	12/08/2024	Select...	Eptesicus nilsson	61	1	2.01	5	24.4	28.1	32.9	26.9	5.8	336	fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610060_2	12/08/2024	Select...	Barbastella barbs	29	1	2.01	1	7.9	34.9	40.5	28.9	1.6	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610060_3	12/08/2024	Select...	-	Nal	1	2.01	1	6.4	89.6	94.5	88.9	7.5	0	cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610061	12/08/2024	Select...	-	Nal	1	2.00	1	7.0	92.6	93.4	85.1	5.9	0	cf-n(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610062	12/08/2024	Select...	Eptesicus serotin	60	1	7.77	23	38.9	27.1	33.8	25.9	10.0	170	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610063	12/08/2024	Select...	Eptesicus serotin	65	1	3.91	15	24.7	27.8	36.8	26.2	6.0	150	fm-l(7)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610064	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610065	12/08/2024	Select...	Eptesicus serotin	59	1	3.47	13	24.6	27.6	34.3	26.2	4.0	235	fm-d(6)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610066	12/08/2024	Select...	Vespertilio murin	43	1	2.00	3	20.6	25.5	29.9	24.9	6.6	397	cf-n(2)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610067	12/08/2024	Select...	Eptesicus serotin	64	1	2.41	5	24.7	27.2	35.0	25.8	7.3	247	fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610068	12/08/2024	Select...	Myotis myotis	58	1	3.98	16	24.4	28.5	36.8	26.1	5.0	140	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610069	12/08/2024	Select...	Pipistrellus pipist	69	1	2.01	5	23.5	44.8	46.0	44.2	7.0	312	cf-e(5)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610070	12/08/2024	Select...	-	Nal	1	2.01	1	8.3	42.4	42.8	28.9	3.7	0	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610071	12/08/2024	Select...	-	Nal	1	2.00	1	7.0	92.3	92.6	88.1	5.9	0	cf-n(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610072_1	12/08/2024	Select...	Plecotus auritus	41	1	2.00	6	22.7	27.8	29.8	25.2	4.0	265	fm-a(2)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610072_2	12/08/2024	Select...	-	Nal	1	2.00	1	6.9	89.3	89.6	85.5	5.3	0	cf-n(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610073	12/08/2024	Select...	Myotis myotis	49	1	2.17	7	24.2	27.4	33.0	25.7	4.0	296	fm-l(4)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610074	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610075_1	12/08/2024	Select...	Nyctalus noctula	64	1	2.00	4	23.1	22.7	25.8	21.8	9.9	351	cf-n(3)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610075_2	12/08/2024	Select...	-	Nal	1	2.00	1	6.6	37.1	40.1	29.3	5.9	0	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610076_1	12/08/2024	Select...	Plecotus auritus	28	1	2.00	1	7.6	28.9	31.9	23.6	2.1	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610076_2	12/08/2024	Select...	Myotis myotis	25	1	2.00	1	7.2	33.8	43.5	24.8	3.2	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610077	12/08/2024	Select...	-	Nal	1	2.00	1	6.6	33.4	35.6	29.6	5.9	0	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610078	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610079	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610080	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610081	12/08/2024	Select...	Barbastella barbs	28	1	2.00	1	8.0	33.4	34.5	28.5	1.6	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610082	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610083	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610084	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610085	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610086	12/08/2024	Select...	-	Nal	1	2.00	1	6.1	87.0	88.1	83.6	5.9	0	cf-n(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610087_1	12/08/2024	Select...	Myotis myotis	56	1	2.47	9	33.2	28.0	35.9	25.5	6.0	241	fm-l(7)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610087_2	12/08/2024	Select...	Eptesicus nilsson	29	1	2.47	1	6.8	33.8	40.1	31.5	3.7	0	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610088	12/08/2024	Select...	Nyctalus noctula	49	1	2.00	6	23.8	28.1	33.3	26.4	6.0	266	fm-l(2)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610089	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610090	12/08/2024	Select...	-	Nal	1	2.01	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610091	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610092	12/08/2024	Select...	-	Nal	1	2.00	1	6.9	91.5	93.8	90.8	6.4	0	cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610093	12/08/2024	Select...	-	Nal	1	2.00	1	6.7	33.4	41.6	29.6	3.2	0	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610094	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610095	12/08/2024	Select...	-	Nal	1	2.01	1	6.3	17.3	31.1	12.0	1.6	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610096_1	12/08/2024	o Pipistrellus p	Pipistrellus pipist	73	1	4.09	35	33.5	48.4	60.2	47.6	4.0	40	fm-d(2)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610096_2	12/08/2024	Select...	Nyctalus noctula	31	1	4.09	1	12.0	18.0	27.8	17.3	3.7	0	fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610096_3	12/08/2024	Select...	Pipistrellus pygrr	28	1	4.09	1	4.7	56.3	62.3	55.1	2.7	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610097	12/08/2024	Select...	-	Nal	1	2.00	1	7.0	91.9	93.0	87.8	4.3	0	cf-n(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610098	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610099	12/08/2024	Select...	Vespertilio murin	62	1	3.49	7	25.1	21.3	22.8	20.6	8.4	497	cf-e(5)	51.41197 / 0.43052
▶	04610100	12/08/2024	Select...	-	Nal	1	2.01	1	1.1	89.6	99.0	88.5	2.1	0	fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610101	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610102	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr
▶	04610103	12/08/2024	Select...	-	Nal	1	2.00	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesharr

BAT SURVEY FORM 2024		Surveyor name	Charlie Birch
Site Name- visit no.	11 Court lodge 2	Date	12/08/2024
Start Time	20:10	Finish Time	21:55
Sunset Time	20:25	Detector number/colour	pink
Position Relative to Structure	NW Corner	Weather Conditions pre sunset	light wind, cloud 30
Air Temperature Start	26	Air Temperature End	24
Brief summary (fill out at end of survey)	Low levels of pips seen commuting with very brief foraging. LE heard not seen.		
*Shorthand: Common Pipistrelle = P45; Soprano Pipistrelle = P55 Brown/Grey long eared = LE; All Myotis = myo followed by single letter; Greater Horseshoe - GHS; Greater Noctule = Noc; Leislers Noctule = Leis; Serotine = se			
**Shorthand - 'NS' = not seen; 'SNH' = seen not heard; 'E' = emergence; 'R' = return; 'F' = foraging; 'C' = commuting.			
Time	Species*	Activity**	Notes including flight direction (if seen)
21:08-21:16			Away, check
	NOC & MYO		Confirmed as present during sound analysis

Play	Delc	Recording	Recorded	Species	Sugg. Species 1st	Sugg. Spec	Length	#	Call	Quality	Peak	I	Max	F	Min	F	Call	le	Distar	Call shape	Location
▶	0	06020036	12/08/2024	Select...	Pipistrellus pygrr	63	1	5.79	16	99.0	58.7	92.1	56.9	4.0	80	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020064	12/08/2024	Select...	Pipistrellus pygrr	74	1	10.9	32	99.0	56.1	85.1	55.3	5.0	190	0	fm-d(3)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020081	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	83	1	5.34	18	99.0	43.5	64.4	42.6	6.0	100	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020090	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	80	1	7.95	30	99.0	45.1	56.6	44.1	5.0	95	0	fm-d(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020092	12/08/2024	Select...	Pipistrellus pygrr	82	1	7.88	29	84.7	53.8	60.9	53.3	5.0	90	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020114	12/08/2024	Select...	Pipistrellus kuhlii	66	1	5.01	20	24.4	41.5	44.6	40.6	8.0	114	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020115_1	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	56	1	6.95	11	99.0	47.6	61.7	45.6	3.0	200	0	fm-d(5)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020115_2	12/08/2024	Select...	Myotis alcathoe	28	1	6.95	2	54.5	52.7	80.3	45.0	4.0	364	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020123	12/08/2024	Select...	Myotis myotis	60	1	7.53	23	32.1	31.2	48.3	28.2	5.0	130	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020127	12/08/2024	Select...	Nyctalus noctula	65	1	4.86	16	54.8	27.2	40.3	24.6	9.0	150	0	fm-d(9)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020202_4	12/08/2024	Select...	-	Nal	1	4.49	1	6.1	91.5	93.0	90.0	7.5	0	0	cf-e(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020202_3	12/08/2024	Select...	Rhinolophus ferr	26	1	4.49	1	6.2	85.9	87.8	84.8	8.0	0	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020202_1	12/08/2024	Select...	Plecotus auritus	27	1	4.49	2	13.4	33.9	39.8	28.1	3.2	471	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020202_2	12/08/2024	Select...	Barbastella barbi	31	1	4.49	1	11.9	30.0	37.9	28.5	1.6	0	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020212	12/08/2024	Select...	-	Nal	1	4.67	1	7.5	36.4	40.9	29.3	3.7	0	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020227_1	12/08/2024	Select...	Myotis myotis	29	1	4.94	2	13.5	30.9	39.0	27.9	1.6	302f	0	fm-l(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020227_2	12/08/2024	Select...	-	Nal	1	4.94	2	12.2	91.7	93.2	87.8	6.4	361	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020252	12/08/2024	Select...	Nyctalus noctula	59	1	5.29	13	30.3	28.6	33.1	26.1	4.0	343	0	cf-n(5)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020276	12/08/2024	Select...	-	Nal	1	6.06	2	12.4	89.4	93.6	86.3	4.3	244f	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020295_1	12/08/2024	Select...	-	Nal	1	4.72	1	8.0	35.6	45.4	29.6	6.4	0	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020295_2	12/08/2024	Select...	-	Nal	1	4.72	1	6.4	92.6	93.0	87.8	4.8	0	0	cf-e(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020297	12/08/2024	Select...	Barbastella barbi	54	1	7.29	4	23.7	35.3	44.1	29.3	4.0	180f	0	cf-e(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020298	12/08/2024	Select...	-	Nal	1	5.45	1	9.0	34.1	44.6	26.6	3.7	0	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020302	12/08/2024	Select...	-	Nal	1	6.09	1	6.8	36.0	36.8	28.9	4.3	0	0	cf-e(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020335	12/08/2024	Select...	Vespertilio murir	61	1	8.69	9	52.1	21.5	23.3	20.5	10.0	616	0	cf-n(6)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020340	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	82	1	5.95	10	99.0	48.8	75.1	48.2	5.0	190	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020344	12/08/2024	Select...	Barbastella barbi	36	1	4.75	2	18.6	33.4	39.9	27.2	2.7	178f	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020345	12/08/2024	Select...	Eptesicus nilsson	30	1	4.90	3	15.1	32.6	41.5	27.8	4.3	998	0	fm-d(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020347	12/08/2024	Select...	Barbastella barbi	26	1	5.75	1	7.5	36.4	46.1	27.8	3.2	0	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020351	12/08/2024	Select...	-	Nal	1	5.46	1	6.3	89.6	91.9	85.9	2.1	0	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020352	12/08/2024	Select...	Pipistrellus pipist	27	1	4.83	2	12.3	87.9	90.2	86.6	4.8	216f	0	cf-n(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020353_1	12/08/2024	Select...	-	Nal	1	5.30	2	12.3	91.1	94.5	89.1	5.3	329f	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020353_2	12/08/2024	Select...	Barbastella barbi	34	1	5.30	1	12.0	33.4	35.6	29.3	4.3	0	0	fm-a(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020354	12/08/2024	Select...	-	Nal	1	5.13	1	6.4	91.9	92.3	88.5	4.8	0	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020362	12/08/2024	Select...	Myotis myotis	30	1	5.08	1	13.7	34.1	42.8	30.0	1.6	0	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020370_1	12/08/2024	Select...	Rhinolophus ferr	35	1	6.14	4	19.5	91.0	93.4	89.1	6.3	170f	0	cf-n(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020370_2	12/08/2024	Select...	Myotis myotis	30	1	6.14	2	13.1	33.2	40.3	27.6	3.7	514f	0	fm-d(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020373_6	12/08/2024	Select...	-	Nal	1	8.88	1	6.2	93.4	94.1	87.4	5.3	0	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020373_5	12/08/2024	Select...	Myotis myotis	32	1	8.88	1	13.5	36.0	43.5	31.5	3.2	0	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020373_4	12/08/2024	Select...	-	Nal	1	8.88	1	7.3	31.9	33.4	26.3	5.9	0	0	cf-e(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020373_3	12/08/2024	Select...	-	Nal	1	8.88	2	12.3	89.1	90.8	86.8	5.3	730f	0	cf-n(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020373_2	12/08/2024	Select...	Myotis alcathoe	49	1	8.88	15	39.8	52.5	64.9	50.7	2.0	60	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020373_1	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	80	1	8.88	23	27.2	47.3	60.0	46.2	4.0	96	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020376	12/08/2024	Select...	Eptesicus nilsson	32	1	6.73	2	19.7	32.8	43.5	27.8	7.2	175f	0	cf-n(1)			51.4121 / 0.4302	
▶	0	06020378_1	12/08/2024	Select...	-	Nal	1	4.86	2	12.4	91.7	94.1	88.7	5.3	149f	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020378_2	12/08/2024	Select...	Myotis myotis	29	1	4.86	1	7.9	32.6	38.3	28.9	2.7	0	0	fm-d(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020378_3	12/08/2024	Select...	Pipistrellus kuhlii	35	1	4.86	1	12.0	36.8	40.1	34.1	3.2	0	0	cf-n(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020382	12/08/2024	Select...	Plecotus austriac	46	1	12.3	4	23.2	33.2	43.7	28.1	3.1	317f	0	fm-d(3)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020385	12/08/2024	Select...	Myotis myotis	30	1	7.74	1	13.4	31.9	42.0	27.4	2.1	0	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020387_1	12/08/2024	Select...	-	Nal	1	5.70	3	14.0	33.0	38.8	28.3	3.6	168f	0	fm-l(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020387_2	12/08/2024	Select...	-	Nal	1	5.70	1	6.1	89.3	90.0	87.4	7.5	0	0	cf-e(1)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020397	12/08/2024	Select...	-	Nal	1	6.33	3	13.2	90.5	93.1	85.6	5.7	256f	0	fm-d(2)			Court Lodge, Upper Ifield, Shorne, Gravesham	
▶	0	06020409	12/08/2024	Select...	-	Nal	1	5.18	0	1.0	0.0	0.0	0.0	0.0	0	0				Court Lodge, Upper Ifield, Shorne, Gravesham	

Extra Detector survey one – located on the southeast corner

Play	Del	Recording	Recorded	Species	Sugg. Species 1st	Sugg. Specie	Lengt	# Call	Quality	Peak I	Max F	Min F	F. Call	le	Distar	Call shape	Location
▶	☐	32900003	20/07/2024	Select...	Nyctalus noctula	51	1	3.02	4	12.9	17.2	17.6	16.5	20.6	712	— cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900007	20/07/2024	Select...	Nyctalus noctula	59	1	3.28	7	13.2	17.9	18.6	17.0	25.0	469	— cf-e(7)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900008	20/07/2024	Select...	Myotis myotis	44	1	3.07	13	28.8	58.6	71.9	55.0	3.0	60	↘ fm-l(7)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900009	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	54	1	5.15	17	45.3	48.6	64.9	46.1	3.0	90	↘ fm-l(9)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900010	20/07/2024	Select...	Myotis myotis	46	1	4.34	7	69.6	59.3	72.7	56.0	3.0	328	↘ fm-l(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900011	20/07/2024	Select...	Pipistrellus pygrr	52	1	3.98	6	39.3	57.6	69.4	53.7	5.0	334	↘ fm-d(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900015	20/07/2024	Select...	Pipistrellus pygrr	51	1	2.80	6	26.1	59.0	64.9	57.3	4.8	299	↘ fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900019	20/07/2024	Select...	Pipistrellus pygrr	54	1	5.05	14	51.9	58.0	76.0	52.9	3.0	277	↘ fm-d(9)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900020	20/07/2024	Select...	Nyctalus noctula	58	1	9.22	6	41.4	18.5	19.0	17.4	15.4	985	— cf-e(6)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900029	20/07/2024	Select...	Nyctalus leisleri	60	1	7.76	21	17.4	22.3	22.8	21.5	12.0	320	— cf-e(2C)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900030	20/07/2024	Select...	Pipistrellus pygrr	54	1	4.68	11	56.4	57.0	68.4	54.7	3.0	175	↘ fm-l(6)	51.411774 / 0.430452
▶	☐	32900032	20/07/2024	Select...	Nyctalus leisleri	61	1	8.51	21	13.8	22.6	23.0	21.8	10.0	408	— cf-e(2C)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900034	20/07/2024	Select...	Vespertilio murin	61	1	4.19	8	13.1	21.9	22.5	21.3	14.0	432	— cf-e(8)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900037	20/07/2024	Select...	Pipistrellus pygrr	48	1	2.99	12	59.3	55.8	67.1	52.8	3.0	172	↘ fm-l(7)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900038	20/07/2024	Select...	Pipistrellus pygrr	52	1	7.05	22	25.2	55.4	68.0	51.5	3.0	50	↘ fm-d(1)	51.411905 / 0.430314
▶	☐	32900042	20/07/2024	Select...	Nyctalus leisleri	30	1	3.70	2	8.3	28.2	35.7	26.1	8.5	765	↘ fm-d(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900043	20/07/2024	Select...	Pipistrellus pygrr	65	1	3.25	5	45.4	55.6	63.1	54.2	5.0	437	↘ fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900047	20/07/2024	Select...	Pipistrellus pygrr	50	1	3.67	15	49.7	53.1	58.6	50.3	5.0	85	↘ fm-d(7)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900049	20/07/2024	Select...	Pipistrellus pygrr	57	1	5.53	15	59.7	57.9	72.0	54.2	4.0	265	↘ fm-d(9)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900060	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	67	1	8.26	17	34.5	47.5	58.9	44.7	4.0	190	↘ fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900064	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	77	1	5.62	19	85.3	46.7	50.0	45.8	5.0	105	— cf-e(1C)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900065	20/07/2024	Select...	Pipistrellus pipist	37	1	2.82	1	1.3	48.5	54.3	47.9	3.3	0	↘ fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900067_2	20/07/2024	Select...	Pipistrellus pipist	36	1	4.84	1	1.7	49.1	53.1	48.2	2.6	0	↘ fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900067_1	20/07/2024	Select...	Pipistrellus pygrr	49	1	4.84	10	29.5	58.0	63.7	56.3	5.0	179	↘ fm-d(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900070	20/07/2024	Select...	Pipistrellus pipist	66	1	3.93	8	53.8	50.8	53.1	49.9	7.0	306	— cf-e(5)	51.411871 / 0.43044
▶	☐	32900071	20/07/2024	Select...	Pipistrellus pipist	61	1	3.37	10	53.2	56.1	58.4	55.2	4.0	160	— cf-e(7)	51.411847 / 0.430448
▶	☐	32900073	20/07/2024	Select...	Myotis myotis	45	1	4.88	22	27.7	41.8	48.7	31.1	4.0	160	↘ fm-l(1)	51.411772 / 0.43034
▶	☐	32900074	20/07/2024	Select...	Pipistrellus pygrr	39	1	5.43	11	76.9	56.8	61.0	54.2	5.0	160	↘ fm-l(3)	51.411764 / 0.430316
▶	☐	32900075	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	61	1	4.02	5	78.5	46.1	49.3	45.6	5.0	200	— cf-n(2)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900076	20/07/2024	Select...	Pipistrellus pygrr	62	1	4.85	9	67.1	54.8	57.0	54.0	5.0	160	— cf-e(6)	51.411755 / 0.430256
▶	☐	32900077	20/07/2024	Select...	Pipistrellus kuhlii	50	1	3.24	6	39.6	40.3	46.6	38.8	4.0	409	↘ fm-l(5)	51.411771 / 0.430337
▶	☐	32900081	20/07/2024	Select...	Pipistrellus pygrr	52	1	3.63	9	83.3	53.3	55.1	51.9	5.0	232	— cf-e(8)	51.411756 / 0.430356
▶	☐	32900082	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	77	1	4.44	14	76.4	45.8	48.0	45.0	6.0	100	— cf-e(1C)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900083	20/07/2024	Select...	Pipistrellus pipist	70	1	3.02	8	23.7	46.8	55.2	45.8	5.0	218	↘ fm-d(6)	51.411746 / 0.430413
▶	☐	32900084	20/07/2024	Select...	Pipistrellus pipist	46	1	5.79	14	75.6	47.2	54.1	44.3	6.0	190	↘ cf-n(5)	51.411763 / 0.430409
▶	☐	32900085	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	67	1	3.98	10	53.3	47.6	54.2	44.2	5.0	190	↘ fm-d(6)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900086	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	52	1	3.24	6	67.4	47.1	50.0	45.5	5.1	425	— cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900088	20/07/2024	Select...	Vespertilio murin	56	1	3.59	4	12.1	27.0	28.4	26.2	5.7	403	— cf-e(3)	51.41174 / 0.430477
▶	☐	32900089_1	20/07/2024	Select...	Vespertilio murin	65	1	4.65	4	73.8	24.1	24.7	23.3	10.2	738	— cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900089_2	20/07/2024	Select...	Myotis myotis	29	1	4.65	1	1.0	29.6	30.2	27.1	3.9	0	↘ fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900092	20/07/2024	Select...	Pipistrellus pygrr	56	1	3.22	6	66.9	52.8	54.5	52.0	6.9	415	— cf-e(4)	51.411784 / 0.43044
▶	☐	32900094	20/07/2024	Select...	Pipistrellus pygrr	59	1	3.47	7	47.4	55.2	58.9	53.7	5.0	328	↘ fm-d(3)	51.411752 / 0.430385
▶	☐	32900095	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	70	1	3.23	4	32.9	49.9	59.7	49.3	3.9	300	↘ fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900096	20/07/2024	◉ Pipistrellus p	Pipistrellus pipist	55	1	4.27	10	45.5	47.8	50.8	47.1	6.0	299	— cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900099_2	20/07/2024	Select...	Pipistrellus nath.	40	1	5.10	1	2.5	39.7	40.0	38.4	7.9	0	— cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900099_1	20/07/2024	Select...	Eptesicus nilsson	39	1	5.10	3	8.9	27.8	28.4	26.7	14.4	217	— cf-e(3)	Court Lodge, Upper Ifield, Shorne, Gravesham
▶	☐	32900099_3	20/07/2024	Select...	Pipistrellus pygrr	28	1	5.10	1	1.0	53.1	53.1	52.5	19.7	0	— cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham

Extra Detector survey one – located on the southwest corner

Play	Del	Recording	Recorded	Species	Sugg. Species 1st	Sugg Specie	Length	#	Call	Quality	Peak I	Max F	Min F	Call le	Distar	Call shape	Location	
▶	05190008	12/08/2024	Select...	Pipistrellus pipist	50	1	4.50	11	30.4	48.7	53.9	47.1	5.0	393	↘ cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190012_1	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	65	1	9.63	13	67.1	48.1	57.3	46.7	4.0	681	↘ cf-e(6)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190012_2	12/08/2024	Select...	Pipistrellus pygrr	30	1	9.63	2	51.9	57.8	65.1	56.6	4.3	225	↘ cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190014	12/08/2024	Select...	Pipistrellus pipist	41	1	4.71	4	81.3	46.9	54.0	45.3	3.6	816	↘ fm-l(2)	Butchers Hill, Upper Ifield, Shorne, Gravesham		
▶	05190021	12/08/2024	Select...	Pipistrellus pipist	43	1	4.66	9	82.7	48.8	54.4	46.6	3.0	251	↘ cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190028	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	52	1	4.60	9	50.0	47.9	53.3	46.4	5.0	380	↘ cf-n(3)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190036	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	59	1	4.49	8	63.0	47.5	51.7	46.5	5.5	282	↘ cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190042	12/08/2024	Select...	Pipistrellus pygrr	62	1	4.16	7	69.8	54.5	57.5	53.7	7.0	222	↘ cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190048_4	12/08/2024	Select...	Myotis alcathoe	26	1	4.38	1	27.7	60.4	85.1	53.3	1.6	0	↘ fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190048_3	12/08/2024	Select...	-	Nal	1	4.38	1	8.2	32.6	37.9	25.5	6.9	0	↘ cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190048_1	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	54	1	4.38	6	75.0	48.4	54.1	47.1	5.3	270	↘ cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190048_2	12/08/2024	Select...	Pipistrellus pygrr	34	1	4.38	2	18.0	53.8	67.5	50.1	2.1	51	↘ fm-l(2)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190050	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	59	1	5.15	11	58.7	49.6	59.9	47.7	5.0	270	↘ fm-d(6)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190064	12/08/2024	Select...	Myotis myotis	41	1	4.02	10	53.0	59.1	65.3	57.4	3.0	240	↘ fm-l(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190074_2	12/08/2024	Select...	Barbastella barba	26	1	3.87	1	6.6	34.9	46.1	30.4	3.2	0	↘ fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190074_1	12/08/2024	Select...	Pipistrellus pipist	47	1	3.87	11	53.2	48.1	54.2	47.1	5.0	213	↘ cf-e(3)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190103	12/08/2024	Select...	Pipistrellus pygrr	59	1	4.26	12	56.4	54.3	57.9	53.3	5.0	263	↘ cf-e(6)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190140	12/08/2024	Select...	Pipistrellus pipist	33	1	4.94	2	59.0	45.2	50.6	44.4	5.9	159	↘ cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190159	12/08/2024	Select...	-	Nal	1	4.91	1	7.2	36.8	47.3	30.0	5.3	0	↘ cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190161	12/08/2024	Select...	Nyctalus noctula	51	1	4.54	3	22.7	25.6	33.9	23.4	6.8	338	↘ fm-d(3)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190166_1	12/08/2024	Select...	Pipistrellus pygrr	68	1	9.32	12	70.5	54.3	55.6	53.7	5.0	80	↘ cf-e(9)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190166_2	12/08/2024	Select...	Pipistrellus kuhlii	56	1	9.32	5	71.2	41.7	42.4	40.7	4.2	716	↘ cf-e(4)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190171_1	12/08/2024	◉ Pipistrellus p	Pipistrellus pipist	62	1	5.79	13	79.4	48.4	57.3	45.7	4.0	90	↘ fm-d(7)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190171_2	12/08/2024	Select...	-	Nal	1	5.79	1	6.6	33.8	36.4	33.4	1.1	0	↘ fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190195	12/08/2024	Select...	Myotis myotis	56	1	6.49	13	36.0	30.9	40.4	28.2	4.0	130	↘ fm-d(8)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190238	12/08/2024	Select...	Nyctalus noctula	53	1	6.98	14	29.2	28.0	33.6	25.4	6.0	464	↘ fm-d(6)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190358	12/08/2024	Select...	Barbastella barba	26	1	4.21	1	8.6	34.1	42.0	28.1	3.7	0	↘ fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190359_1	12/08/2024	Select...	Eptesicus nilsson	29	1	5.79	1	7.0	33.0	35.6	28.5	3.2	0	↘ fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190359_2	12/08/2024	Select...	-	Nal	1	5.79	1	5.6	91.5	93.8	90.8	4.8	0	↘ cf-e(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190396	12/08/2024	Select...	-	Nal	1	3.87	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190432_1	12/08/2024	Select...	Myotis myotis	29	1	5.78	2	13.6	35.6	45.4	30.2	3.5	319	↘ fm-l(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190432_2	12/08/2024	Select...	Pipistrellus pygrr	26	1	5.78	1	5.8	92.3	93.8	89.6	3.7	0	↘ fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190439_1	12/08/2024	Select...	-	Nal	1	4.13	3	12.8	90.9	93.3	88.1	4.4	190	↘ fm-d(2)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190439_2	12/08/2024	Select...	Myotis myotis	27	1	4.13	1	7.3	37.1	47.3	30.0	4.8	0	↘ fm-d(1)	Court Lodge, Upper Ifield, Shorne, Gravesham		
▶	05190472	12/08/2024	Select...	-	Nal	1	3.83	0	1.0	0.0	0.0	0.0	0.0	0		Court Lodge, Upper Ifield, Shorne, Gravesham		

BAT BOXES AND OTHER SUITABLE MITIGATION AND ENHANCEMENTS



Small Red
215 x 215 mm

IR SCREENSHOTS (TAKEN AT THE DARKEST POINT OF THE SURVEY)

