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Report prepared for: Mr. Mahmood

For the Site of: 47 Chestnut Avenue, Epsom, Surrey KT19 0SY

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Ecological reports are limited in shelf life, Natural England usually expect reports for licenses to be no more than 12 months old and therefore should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site. Information is believed to be accurate at the time of survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

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# Preliminary Roost Assessment (PRA)

## 0.0 Non Technical Summary

### 0.1 Background -

The survey follows national guidelines Collins (2016) allowing for a day-time inspection and recommends for further surveys if considered necessary. If a deviation from the guidelines has been made this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of 47 Chestnut Avenue, Epsom, Surrey, KT19 0SY.

The client commissioned Cherryfield Ecology to undertake a PRA as the proposals include for the demolition of the existing single storey garage.

### 0.2 Results and Findings -

The site consists of a single storey detached garage. It is built of a pre-fab garage style, with concrete walls and asbestos roof.

### 0.3 Impact Assessment and Recommendations -

No impacts foreseen.

No further surveys are considered necessary; however, sensible precautions are given in section 4 of the report.

## 1.0 Introduction

### 1.1 Aim of the Survey

This survey aims to inform the client of any bat issues that may be present on site and that could affect the development. It recommends for further survey when considered necessary and provides possible mitigation and enhancement should this become required.

### 1.2 Background Information

The client, Mr Arshad Mahmood, has commissioned Cherryfield Ecology to undertake a PRA for the site of 47 Chestnut Avenue, Epsom, Surrey, KT19 0SY. Planning permission is being sought to demolish the existing single storey detached garage and to build a 3 bedroom detached house on the site.

This survey has checked all buildings, trees (from ground level only) or structures due to be affected by the proposals for bats, signs of bats or features known to be used by bats e.g. crevices, gaps or holes that cannot be checked for a variety of reasons.

The inspection was conducted on the 02/05/2019.

The survey can only ever provide a 'snap shot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and therefore a synopsis is provided.

The survey can be conducted year round, however it can be limited due to bad weather and in the winter, when bats are not active, thus evidence and bats are often not found. During these periods habitat value (likely presence) becomes more important to the assessment of the site.

Summary of legislation and National Planning Policy that protects bats in England:

- Conservation of Habitats and Species Regulations 2017.
- Wildlife and Countryside Act 1981 as amended.
- Countrywide and Rights of Way Act 2000.

- Natural Environment and Rural Communities Act 2006.
- National Planning Policy Framework (“NPPF”).
- Circular 06/05.

This legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is well-defined by the legislation as the ‘resting place’ of a bat. However, the word roost is used to describe this resting place and is generally accepted as the word describing where a bat or bats rest, feed or sleep.

## 2.0 Methods

The survey follows the national guidelines Collins (2016) and the following equipment is available for the inspection (it may or may not all be used):

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors as above (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting droppings and feeding evidence (should this be found).

The assessment allows for a detailed inspection of the site looking for bats, evidence of use by bats e.g. droppings/feeding remains and features known to be used by bats for roosting e.g. gaps, crevices and holes. Trees and buildings are assessed from ground level only and may require climbed surveys of holes, cracks and crevices.

Biological records data is ordered from the local records centre to provide context and background information. As the data is often sensitive a synopsis is provided.

If a deviation from the guidelines has been made the reason and justification will be explained below: -

*No deviation from the standard guidelines has been made for this survey.*

### 2.1 Limitations

This survey provides a snap -shot of the site at the time of the survey(s) only. Bats are highly mobile and can and do turn-up from time to time unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

Table 1: Roosting features (likelihood) of bat presence assessed against Collins (2016) guidelines *Source: Adapted from Collins (2016) pp 35, Table 4.1.*

| Likelihood of bat presence (Habitat Value)            | Features that bats can and will use, regardless of evidence being present.   |
|---|--|
| <b>Confirmed Bat Presence</b>                         | Bats are found to be present during the survey.<br>Evidence of bats is found to be present during the survey.  |
| <b>Higher likelihood of bat presence.</b>             | Pre-20th century or early 20th century construction.<br>Agricultural buildings of traditional brick, stone or timber construction.<br>Large and complicated roof void with unobstructed flying spaces.<br>Large (>20 cm) roof timbers with mortice joints, cracks and holes.<br>Entrances for bats to fly through.<br>Poorly maintained fabric providing ready access points for bats into roofs, walls, bridges, but at the same time not too draughty and cool.<br>Roof warmed by the sun, in particular south facing roofs.<br>Weatherboarding and/or hanging tiles with gaps.<br>Low level of disturbance by humans.<br>Bridge structures, follies, aqueducts and viaducts over water and/or wet ground. |
| <b>Moderate and Lower likelihood of bat presence.</b> | Modern, well-maintained buildings or built structures that provide few opportunities for access by bats.<br>Small, cluttered roof space.<br>Buildings and built structures comprised primarily of prefabricated steel and sheet materials.<br>Cool, shaded, light or draughty roof voids.<br>Roof voids with a dense cover of cobwebs and no sections of clean ridge board.<br>High level of regular disturbance.<br>Highly urbanised location with few or no mature trees, parkland, woodland or wetland.<br>High levels of external lighting.  |
| <b>Negligible likelihood of bat presence.</b>         | No features suitable for roosting, minor foraging or commuting.  |

**Notes on using this table**

- 1 The features listed here may not be indicative of use of the site by bats during winter or spring.
- 2 Pre-1914 buildings may present the greatest likelihood of providing roost space for bats due to their design, materials used and age. Pre-1990 buildings, especially when close to good foraging habitat, and with favoured features such as cavity walls and soffits, also have a high likelihood of providing roost sites for some bat species.
- 3 Post-1990 buildings are generally less likely than older buildings to house roosts; however, some modern designs provide access to suitable roosting spaces for bats. Pipistrelles in particular occupy modern buildings and built structures providing that there are suitable access gaps (> 8mm) and provided the structure has appropriate characteristics for roosting.

### 3.0 Results

The following section details the results of the desk study, inspection and survey, it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

#### 3.1 Desk Study

The desk study is centred on Grid Ref - TQ211646 and postcode - KT19 0SY.

Table 2: Weather records -

|               |     |
|---------------|-----|
| Temperature   | 10C |
| Cloud cover   | 90% |
| Precipitation | No  |
| Wind          | 1/8 |

#### 3.2 Magic:

The following statutory sites and European Protected Species (EPS) have been located on the 2km search (see Figure 1) -

- There were no EPS licenses found in the search area.
- There were 4 Local Nature Reserves (LNR) found with the search area
  - Hogsmill LNR, approx. 668m south-west of site
  - Tolworth Court Farm Fields LNR, approx. 1km west of site
  - Horton County Park, approx. 1630m south-west of site
  - Southwood Open Space, approx. 1690m north of site.

MAGiC

KT19 0SY

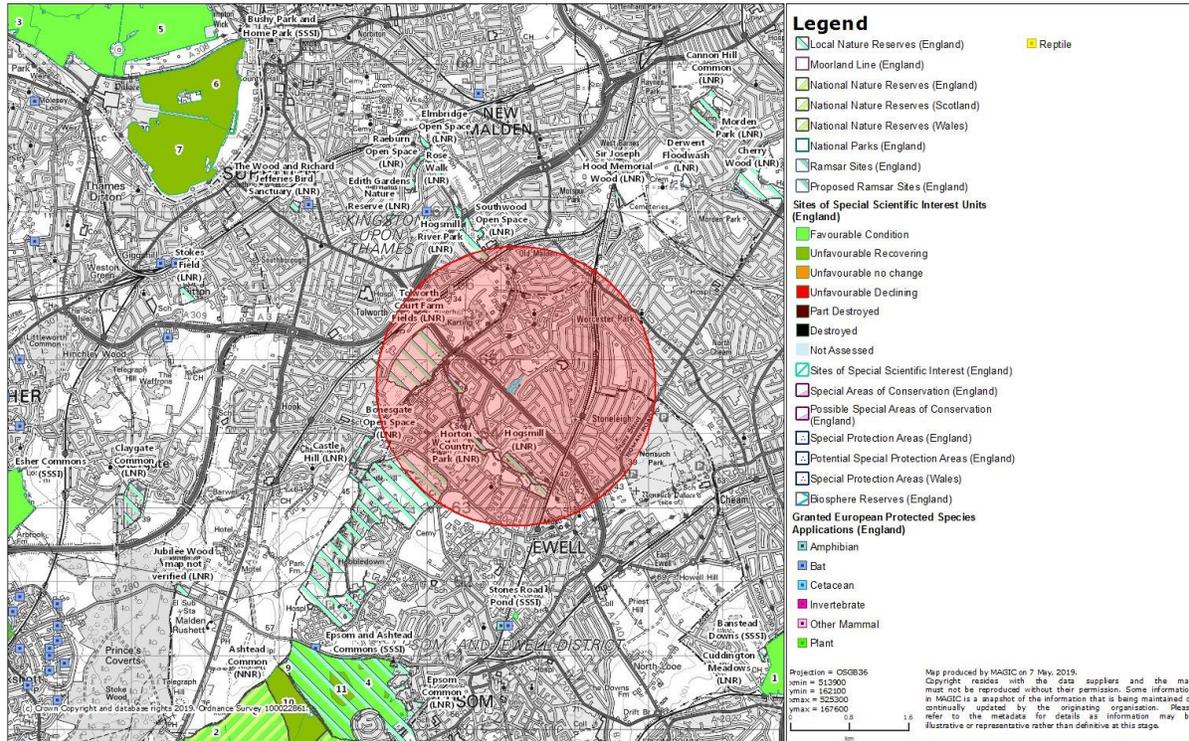


Figure 1: Magic search

### 3.3 Biological Records Data:

A 2km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context:

Biological records were obtained from the Surrey Bat Group (2019). 39 bat records are supplied. Of these there are no roosts recorded, and no records from the site. The majority of records are for a Pipistrelle species in flight, with the occasional noctule *Nyctalus noctula* records. They range in date from 1988 to 2016.

### 3.4 Site Location and Surrounds:

The site is located in Epsom, Surrey and is surrounded by urban development in the immediate local. Table 3 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 3: Habitat features suitable for bat use in the general area

| Feature               | Description  |
|-----------------------|--|
| Water course          | Un-named ordinary watercourse, approx. 700m west   |
| Water bodies          | None found in the search area.   |
| Woodland              | A small woodland block found approx. 500m to the north of the site, further small woodland block to the south, approx., 800m |
| Linear e.g. hedgerows | Several street trees are located around the site linking to the wider landscape  |
| Pasture/arable        | Gardens dominate the area.   |
| Other                 | n/a  |

### 3.5 Building, Tree or Other Structure

This section details the structures reference, and description (see Figure 7 for site plan).

Building/tree/structure reference - B1

#### 3.5.1 Description

##### 3.5.2 General

The site consists of a small brick single storey detached garage (B1) circa 1960's, with a single skin, asbestos roof. B1 has negligible potential to support bats.

##### 3.5.3 External

A small prefabricated brick garage with a corrugated asbestos single skin roof (see Figures 2 and 3).



Figure 2: Front aspect B1



Figure 3: Rear aspect B1

#### 3.5.4 Internal

No loft space, vaulted internally with no lining (see Figures 5 and 6).



Figure 4: Internal B1



Figure 5: Internal B1

### 3.6 Bats, Evidence or Likelihood of Bat Presence

The following table details the results of the surveys -

Table 4: Bats, evidence or likelihood of bats being present.

|                       |  |
|-----------------------|--|
| Bats found            | No bats found  |
| Evidence of bat use   | No bats evidence found   |
| Potential for bat use | Level of likelihood of presence - negligible<br>There is know potential for this structure to be used as roosting area for bats. |



Figure 6: Internal and roof B1

### 3.7 Supplementary Observations



Figure 7: Site plan

## 4.0 Conclusions, Discussion and Recommendations

The following section details the conclusions, discussion, potential impacts and recommendations in the context of the proposed works.

Building/tree/structure reference - B1

### 4.1 Conclusion and Discussion

The development will involve the demolition of the current building (B1), replacing with a new residential dwelling. No bats or evidence of bat use has been found.

### 4.2 Potential Impact

Impact assessments must be proportionate to the scale of the development (CIEEM, 2018) and the following details a proportionate impact assessment based on current information -

Table 5: Impact assessment

|  |               |
|--|---------------|
| Impact   | None foreseen |
| Characterisation of unmitigated impact on the feature          | N/A           |
| Effect without mitigation                                      | N/A           |
| Potential enhancement  | See table 6   |
| Significance of effects of residual impacts (after mitigation) | N/A           |

### 4.3 Recommendations

Potential enhancements based on the current information available. The LPA has a duty to have a net gain in biodiversity through its duties.

- No time restrictions to the works are considered necessary.
- If a bat is found at any time, work must stop, and further advice sought from a bat ecologist.

- If works do not proceed within 12 months of this report an update will be required to check for material change.

#### 4.4 Potential Enhancement

Table 6: Proposed enhancement, based on the current information available, which are cost-effective and easily installed in any development.

| Work                         | Specification   |
|------------------------------|---|
| <p>Potential Enhancement</p> | <p>Based on Mitchell - Jones, (2004).</p> <p>Bat access tiles x 2 will be installed into the roof along or near to the ridge therefore allowing bats access into the space between tiles and/or sarking boards (see Figure 8). <b><i>A bitumen felt is to be used it must be of type 1F only.</i></b> On flat roof structures a bat tube will be built into the building (see Figure 9)</p> <div data-bbox="766 835 1084 1031" data-label="Image">  </div> <p data-bbox="743 1035 1107 1062">Figure 8: Example of a bat tile</p> <div data-bbox="854 1066 992 1356" data-label="Image">  </div> <p data-bbox="748 1360 1105 1388">Figure 9: Example of bat tube</p> <p>Commuting bats maybe using the grounds and surrounds - therefore any tree, hedges or linear feature should be retained were possible.</p> <p>Landscaping the new development with planting of trees, hedges or any flowering plants (with nectar sources for pollinators) is encouraged to provide more opportunities for bats to forage and generally increase biodiversity.</p> <p>Plants such as:</p> <ul style="list-style-type: none"> <li>Hawthorn Crataegus</li> <li>Honeysuckle Lonicera</li> <li>Jasmine Jasminum</li> <li>Silver birch Betula pendula</li> <li>Primrose Primula vulgaris</li> <li>Lavender Lavandula</li> <li>Scabious Scabiosa</li> </ul> |

|          |  |
|----------|--|
|          | <p>Cornflower <i>Centaurea cyanus</i><br/>Red Campion <i>Silene dioica</i></p> <p>More information can be found from the Bat Conservation Trust here:<br/><a href="http://www.bats.org.uk/pages/encouraging_bats.html">www.bats.org.uk/pages/encouraging_bats.html</a></p>   |
| Lighting | <p>Any lighting near or shining onto any trees, especially those with bat boxes in should be designed to minimize the impact it has on potential bat roosting and commuting.</p> <p>Lighting should be in-line with the BCT lighting guidelines (Bats and Lighting in the UK (Bat conservation trust, 2018) <a href="https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/">https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/</a></p> <p>This lighting should be of low level, be on downward deflectors and ideally be on PIR sensors. Using LED directional lighting can also be a way of minimizing the light spill affecting the habitat. No up-lighting should be used.</p> <p>This will ensure that the roosting and commuting resources that the bats are likely to be using is maintained.</p> |

## 5.0 References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, September 2018. Chartered Institute of Ecology and Environmental Management, Winchester, online at <https://www.cieem.net/data/files/ECIA%20Guidelines.pdf>

Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3<sup>rd</sup> Edition, BCT, London

Google Earth, (2017), Located on site postcode, online

MAGIC, (2017): Magic maps, EPS licences and designated sites, online <http://www.magic.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.aspx>, accessed as report date.

Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough  
Records: Surrey Bat Group (2019)