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BAT SCOPING SURVEY

At

1 Codrington Gardens
Gravesend
Kent
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A handwritten signature in black ink, appearing to read 'Toby Hart', is positioned below the 'Approved by:' line.

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CONTENTS

EXECUTIVE SUMMARY	3
1 INTRODUCTION	4
1.1 Author, surveyors and qualifications	4
1.2 Survey objectives.....	4
1.3 Proposed development	4
1.4 Structure of the report	4
2 METHODOLOGY	5
2.1 General.....	5
2.2 Building survey	5
2.3 Survey limitations.....	6
3 RESULTS.....	7
3.1 Habitat assessment	7
3.2 Building survey	7
4 EVALUATION AND RECOMMENDATIONS	9
4.1 Evaluation of results.....	9
4.2 Mitigation and compensation measures	9
5 CONCLUSION.....	11
6 REFERENCES	12
APPENDICES.....	13
Appendix 1 – Aerial photographs	13
Appendix 2 – Photographs	14
Appendix 3 – Statutory and planning context	15

EXECUTIVE SUMMARY

This report is written by Noah Fulton BSc, Graduate Ecologist at United Environmental Services Ltd (UES). It provides an assessment of the potential impacts on bats as a result of the proposed residential development at 1 Codrington Gardens, Gravesend, Kent.

A bat scoping survey was undertaken on 11th January 2022. The objective of the survey was to establish the suitability of the building on site to support roosting bats, based on a site-specific survey and habitat assessment. The building was searched externally and internally (where accessible) for bat presence and features associated with bat activity, as detailed in Bat Conservation Trust (BCT) guidance (2016).

1 Codrington Gardens is situated in a predominantly urban area which provides low-quality habitat for foraging and commuting bats. The surrounding small residential gardens and areas of public amenity grassland open space will support some, albeit a low abundance of insects on which bats can forage. Furthermore, the connectivity between habitats in the local area is poor due to a lack of hedgerows, tree lines and other linear vegetative features. Pockets of higher-quality habitat are present within the wider landscape and include areas of woodland and ponds within golf courses, however these are somewhat isolated from the site by urban areas and well-lit roads.

The building on site has been assessed as having low potential to support roosting bats due to the presence of a number of external potential roosting features (PRFs), such as gaps in the ridgeline, under raised roof tiles and at the roofline on the northern gable end. No evidence of roosting bats was observed during the internal or external building inspections. A historical birds nest was observed between the roof tiles and the bitumen roof membrane in the loft void.

Despite the presence of PRFs within the roof of the existing building, the proposed development will not directly impact upon the roof or any of the PRFs. The section of the building that is due to be impacted by the works contains no PRFs suitable for use by roosting bats.

The section of the building due to be impacted by the development proposals is considered to have negligible potential to support roosting bats. No PRFs are due to be directly impacted by the proposals and no evidence was found during the internal and external inspections to suggest present or historic use by bats. As such, no further survey or mitigation work is required for the development to proceed with regards to bats. If the proposals change to involve impacts to any section of the roof of the existing building, a further bat presence / absence survey would be required to determine whether bats are using the building for roosting purposes.

All features within the building that are suitable to support roosting birds are located within the roof and will not be impacted by the proposals. As such, it is considered that the proposals will not impact upon nesting birds and no further mitigation or compensation is required. If the proposals change to involve impacts to any section of the roof of the existing building, works would need to be undertaken outside of the nesting bird season and should not be undertaken from March to August inclusive.

The report should be read in conjunction with appendices 1 to 3, which give visual representations of the survey results.



1 INTRODUCTION

1.1 Author, surveyors and qualifications

This report is compiled and written by Noah Fulton BSc, UES Graduate Ecologist. Other surveyors include:

- Tom Kenwright BSc MSc, UES Senior Ecologist. Tom is licensed by Natural England to survey all species of bats by observation using an artificial light under licence number 2021-53549-CLS-CLS (level 1).

All surveyors have the knowledge, skills and experience identified within CIEEM's "Competencies for Species Survey: Bats" (2013), or were under the supervision of a surveyor with the required competencies.

1.2 Survey objectives

UES was commissioned in January 2022 to conduct site surveys which include the following activities:

- Conduct internal and external building inspections to look for field signs of bats
- Assess the suitability of the building for use by roosting bats
- Recommend further surveys, mitigation and compensation, where appropriate

1.3 Proposed development

The development proposals involve the erection of 2-bedroom end-terrace house within the side garden of the existing end-terrace, and provision of off-street parking.

1.4 Structure of the report

This report sets out the methodology, results, and recommendations in relation to a specific bat survey. Recommendations are in line with statutory legislation and planning policy objectives.

The report should be read in conjunction with appendices 1 to 5, which give visual representations of the survey results.



2 METHODOLOGY

2.1 General

All surveys were carried out to recognised guidelines, timings and weather conditions, with particular reference to Natural England and BCT publications (see references for further information).

The habitats on site and in the surrounding area were assessed during a walkover survey and by studying aerial photographs, in order to gauge their suitability to support roosting, foraging and commuting bats.

2.2 Building survey

The building on site was searched both externally and internally for bat presence and features associated with bat activity, as detailed in BCT guidance (Collins, 2016). This was conducted on 10th January 2022 by Noah Fulton and Tom Kenwright.

2.2.1 External inspection

The external inspection of the building on site was carried out from ground level using binoculars, and also using ladders and a high-powered torch to investigate suitable gaps, where present. The objective of the survey was to find and record any signs of bat use, for example:

- Bat droppings
- Feeding remains
- Grease staining / urine marks
- Corpses or skeletons

The bat signs listed above are not visible from the outside of a building. The following areas were searched, where present:

- Pitched roof structure
- Lead flashing
- Wooden rafters/edge beams
- Bitumen roof membrane
- Brick walls
- Gable ends
- Ridge beams
- Ridgeline gaps between tiles
- Concrete undulating ridge tiles
- Gaps in brickwork and mortar
- Wooden soffits/ fascia's
- Barge board
- UPVC Windows and Vents

2.2.2 Internal inspection

The internal inspection covered all of the accessible rooms and roof spaces within the building.

Bats regularly utilise specific areas within roof spaces, which were searched for any field signs of bats using high-powered torches and an endoscope, where considered necessary by the licenced ecologist. The following features were searched, where present:



- Roof beams and junctions
- Gaps under bitumen roof membrane
- Dividing walls
- Chimney breasts
- Gaps in brickwork and mortar
- Cracks / holes in woodwork
- Floor or other surfaces on which droppings could accumulate

2.3 Survey limitations

The survey was carried out in early January at a time when bats are spending most of the time in torpor within hibernation sites. For this reason, potentially exposed droppings from summer roosts may not be evident as they are likely to have decomposed or have been washed away.

Internal field signs should still be evident at this time of year, as should droppings in sheltered locations.



3 RESULTS

3.1 Habitat assessment

The proposed development site at 1 Codrington Gardens comprises a residential dwelling and an associated garden area, located on the south-eastern outskirts of Gravesend, Kent. The habitats within the development boundary include a single end-terraced house and associated car parking, small areas of introduced shrub, amenity grassland and a species-poor non-native hedgerow. These habitats on site provide low-quality foraging and commuting opportunities for bats.

The immediate surrounding area (within 500m) predominantly comprises urban residential and commercial areas, with bat foraging and commuting opportunities being limited to small linked residential gardens and intensively managed areas of amenity grassland such as sports playing fields. These habitats provide low-quality foraging and commuting opportunities for bats. A small area of woodland known as The Warren lies approximately 420m east of the site and provides a small pocket of higher quality habitat.

Habitats in the wider surrounding area (within 2km) are similar in composition with large, urbanised areas lying to the north and east. Further afield, areas of rough grassland, tree lines and ponds are present within Gravesend Golf Course and Mid Kent Golf Course, which lie approximately 1.5km east and 0.75km west, respectively. Further afield to the south lies an area of agricultural fields, however this is somewhat isolated from the site by the A2 road. Shorne Woods Country Park lies approximately 2km south-east from the site and includes a large area of woodland which will provide a pocket of high-quality foraging and commuting habitat. The habitats within the wider landscape provide low-moderate quality foraging and commuting opportunities for bats, with some small, scattered pockets of high-quality habitat. Commuting opportunities between the site and the wider landscape are limited to small linked residential gardens with limited tree cover and numerous roads illuminated with street lighting. The numerous residential and commercial buildings within the surrounding landscape provide an abundance of alternative roosting opportunities.

3.2 Building survey

3.2.1 External inspection

A single end-terraced residential dwelling is the only building present on site at 1 Codrington Gardens. The proposals involve the construction of an additional adjoining dwelling; however the roof line of the dwelling will be set at a lower height and the existing roof won't be impacted.

The building is a two-story end-terrace residential dwelling that is currently occupied (see Appendix 2 – Photograph 1). The building has a pitched roof with concrete roof and ridge tiles and connects to the roof of the adjacent dwelling to the south. Cavities are present where mortar is missing from some of the ridge tiles and gaps are present under many raised roof tiles (see Photographs 2 & 3). A central intact redbrick chimney is present and is surrounded by lead flashing. A section of this flashing is raised, providing a PRF that could be used by bats (see Photograph 4). Wooden soffits and fascias are present on the eastern and western aspects and are well-sealed to the brickwork, with the exception of a small cavity behind the end of the fascia on the northern end which is superficial and broadly unsuitable for use by roosting bats. Cavities in the mortar are present beneath the end roof tiles at the roofline on the northern gable end, some of which could be inspected with binoculars and a high-powered torch and are considered to be unsuitable for use by roosting



bats (see Photographs 5 & 6). The walls are constructed with redbrick and mortar and are in good condition with some superficial cracks that were fully inspected using binoculars and were found to be unsuitable to support roosting bats. UPVC windows and doors are present, all of which are double glazed and well-sealed.

No bat field signs were found during the external building inspection.

3.2.2 Internal inspection

A loft void is present within the building and is approximately 2.5m in height from floor to ridge and 5m in width (see Photograph 7). The roof has a wooden ridge beam and rafters with a small number of potential roosting cavities between the beams (see Photograph 8). Redbrick walls are present at the southern and eastern ends of the loft and some cavities are present at the edges which could provide PRFs (see Photographs 9 & 10), however no light ingress was observed, indicating that these features do not provide access into the loft void. The inner brick chimney is intact with no cavities. The underside of the roof is lined with bitumen membrane and is generally in good condition, however some a small number of cavities are present, exposing the underside of the tiles and providing a potential access point into the loft void (see Photographs 8 and 11). A historical bird nest, suspected to be a house sparrow *Passer domesticus* nest, was observed within the cavity between the bitumen membrane and the underside of the tiles (see Photograph 11). The loft space is not cluttered providing adequate flight space and was not cold or draughty. Five scattered mice droppings were observed within the loft void (see Photograph 12).

No bat field signs were found during the internal building inspections.



4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results

4.1.1 Qualitative assessment of foraging habitats

In summary, 1 Codrington Gardens is situated in a predominantly urban area which provides low-quality habitat for foraging and commuting bats. The surrounding small residential gardens and areas of intensively managed, amenity grassland open space will support some, albeit a low abundance of insects on which bats can forage. Furthermore, the connectivity between habitats in the local area is poor due to a lack of hedgerows, tree lines and other linear vegetative features. Pockets of higher-quality habitat are present within the wider landscape, including areas of woodland and ponds within golf courses, however these are somewhat isolated from the site by urban areas and well-lit roads.

4.1.2 Qualitative assessment of roosting habitats

The numerous surrounding residential and commercial buildings in the local area and the woodland and buildings located further afield will provide an abundance of alternative roosting opportunities for bats.

The building on site has been assessed as having low potential to support roosting bats due to the presence of a number of external PRFs such as gaps in the ridgeline, under raised roof tiles and at the roofline on the northern gable end. No evidence of roosting bats was observed during the internal or external building inspections.

Despite the presence of PRFs within the roof of the existing building, the proposed development will not directly impact upon the roof or any of the PRFs. The section of the building that is due to be impacted by the works contains no PRFs suitable for use by roosting bats.

4.2 Mitigation and compensation measures

4.2.1 Bats

The section of the building due to be impacted by the development proposals is considered to have negligible potential to support roosting bats. No PRFs are due to be directly impacted by the proposals and no evidence was found during the internal and external inspections to suggest present or historic use by bats. As such, no further survey or mitigation work is required for the development to proceed with regards to bats. If the proposals change to involve impacts to any section of the roof of the existing building, a further bat presence / absence survey would be required to determine whether bats are using the building for roosting purposes.

4.2.2 Breeding birds

All features within the building that are suitable to support roosting birds are located within the roof and will not be impacted by the proposals. As such, it is considered that the proposals will not impact upon nesting birds and no further mitigation or compensation is required. If the proposals change to involve impacts to any section of the roof of the existing



building, works would need to be undertaken outside of the nesting bird season and should not be undertaken from March to August inclusive.

Gravesend Borough Council



5 CONCLUSION

1 Codrington Gardens is situated in a predominantly urban area which provides low-quality habitat for foraging and commuting bats. The surrounding small residential gardens and areas of public amenity grassland open space will support some, albeit a low abundance of insects on which bats can forage. Furthermore, the connectivity between habitats in the local area is poor due to a lack of hedgerows, tree lines and other linear vegetative features. Pockets of higher-quality habitat are present in the wider landscape, including areas of woodland and ponds within golf courses, however these are somewhat isolated from the site by urban areas and well-lit roads.

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6 REFERENCES

Chartered Institute of Ecology and Environmental Management (2013). *Competencies for Species Survey: Bats*.

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. (3rd ed.) The Bat Conservation Trust, London.

Department for Communities and Local Government (2021). *National Planning Policy Framework*.

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APPENDICES

Appendix 1 – Aerial photographs

Gravesham Borough Council



**1 Codrington Gardens –
Gravesend**

Close aerial photograph

— Survey boundary





**1 Codrington Gardens –
Gravesend**

Wide aerial photograph

 Site location





Appendix 2 – Photographs

Gravesend Borough Council



Photograph 1 – Looking east towards the front (western aspect) of the building.



Photograph 2 – PRFs are present on the ridgeline where mortar is missing.



Photograph 3 – Numerous PRFs are present beneath raised roof tiles.



Photograph 4 – The central redbrick chimney is in good condition, however PRFs are present beneath the raised lead flasing.



Photograph 5 – PRFs are present where the mortar is missing between end tiles at the northern gable end of the building.



Photograph 6 – Cavities are present in the mortar beneath the end roof tiles on the northern gable end, however these are superficial and considered to be unsuitable for roosting bats.



Photograph 7 – View of the loft void.



Photograph 8 – The underside of the roof is lined with bitumen roofing felt.



Photograph 9 – Cavities are present between the end rafter and the brick wall at the northern end of the loft void.



Photograph 10 – Cavity present at the edge of the wall at the southern end of the loft void.



Photograph 11 – A historical bird nest (suspected to have been house sparrow) was observed within a tear in the bitumen membrane, located between the membrane and the roof tiles.



Photograph 12 – One of five scattered mouse droppings observed within the loft void.



Appendix 3 – Statutory and planning context

Gravesend Borough Council

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of the legislative protection that is relevant to the findings of this report.

Bats

In the United Kingdom, all species of bat and their roosts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Amendment (EU exit) Regulations 2019 (known as the “Habitats Regulations”). The Wildlife and Countryside Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000. This makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture a bat
- Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (even if the bat is not present at the time)
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead bat, any part of a bat or anything derived from a bat

Under UK law, a bat roost is *any structure or place which any wild [bat] ... uses for shelter or protection*. As bats often reuse the same roosts, legal opinion is that a roost is protected whether or not the bats are present at the time of the activity taking place.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

If an activity is likely to result in any of the above offences, a licence can be applied for to derogate from the protection afforded. These licences must provide appropriate mitigation and are issued by Natural England.

A Natural England mitigation licence application requires a Mitigation Method Statement and, in many cases, a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

The National Planning Policy Framework 2021 (NPPF) provides guidance on the interpretation of the law in relation to the natural environment and development.

The Natural Environment and Rural Communities (NERC) Act 2006 lists the following bat species as species of principle importance under Section 41:

- Barbastelle *Barbastella barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Soprano pipistrelle *Pipistrellus pygmaeus*
- Brown long-eared bat *Plecotus auritus*
- Greater horseshoe *Rhinolophus ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*

Section 40 requires every public body in the exercising of its functions ‘have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’ (all biodiversity and not just section 41 species and habitats); therefore making these bats a material consideration in the planning process and requiring a detailed ecological bat survey before planning permission can be granted.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The NERC Act offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity, localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Planning policy

National Planning Guidance is issued in the form of the National Planning Policy Framework 2021 (NPPF). The most relevant section is 15: Conserving and enhancing the natural environment.

Key relevant principles stated in 15: Conserving and enhancing the natural environment are;

- 174.** Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 179.** To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; and
 - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity
- 180.** When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.