



1015 Oxford Road

Reading

Preliminary Bat Roost and Nesting Bird Assessment

October 2023

REPORT CONTENTS

1.	INTRODUCTION	1
1.1.	BRIEF	1
1.2.	SITE DESCRIPTION	1
1.3.	PROPOSED WORKS	1
1.4.	LEGISLATION AND PLANNING POLICY	1
1.5.	SURVEY SCOPE	2
1.6.	REPORTING	2
2.	METHODS.....	3
2.1.	DESK STUDY.....	3
2.2.	FIELD STUDY	3
3.	RESULTS	5
3.1.	DESK STUDY.....	5
4.	EVALUATION	11
4.1.	SUMMARY OF PRELIMINARY ROOST ASSESSMENT	11
4.2.	SUITABILITY/POTENTIAL FOR SUMMER ROOSTS	11
4.3.	POTENTIAL WINTER ROOSTS	11
4.4.	BIRDS – INTERPRETATION OF NESTING BIRD SURVEY	11
5.	REQUIRED ACTIONS	12
5.1.	FURTHER WORK	12
5.2.	LICENSING REQUIREMENTS FOR BATS	12
5.3.	LONGEVITY OF REPORT	12
6.	REFERENCES	14

DRAWINGS AND PLANS

PLAN 1: LOCATION PLAN

PLAN 2: PROTECTED SITES

PLAN 3: BUILDING AND PRELIMINARY ROOST INSPECTION

APPENDICES

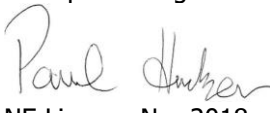
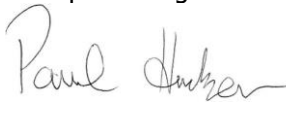
APPENDIX 1: BAT ECOLOGY AND LEGISLATION PROTECTING BATS AND THEIR ROOSTS

APPENDIX 2: GUIDELINES FOR ASSESSING POTENTIAL BAT ROOSTING SUITABILITY AND DETERMINING REQUIRED NUMBER OF DUSK EMERGENCE AND DAWN RE-ENTRY SURVEYS

APPENDIX 3: GUIDELINES FOR ASSESSING BAT HABITAT SUITABILITY

Acer Ecology

DOCUMENT CONTROL

1015 Oxford Road, Reading Preliminary Bat Roost and Nesting Bird Assessment				
Revision	Date	Prepared by	Checked by	Approved by
1.0	28 October 2020	Paul Hudson MCIEEM Principal Ecologist  NE Licence No: 2018-36707-CLS-CLS)	Harri Williams Graduate Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

Acer Ecology Ltd accepts no responsibility or liability for the use of this document, other than by the client for the purpose for which it was originally commissioned and prepared.

Acer Ecology

Summary

Brief and Site Location	Acer Ecology Ltd was commissioned by Parkgrove Developments Ltd to conduct a preliminary roost assessment of a house, located at 1015 Oxford Road, Reading, RG31 6TL, within the boundary of Reading Borough Council (Ordnance Survey Grid Reference centred at: SU 6726 7524).
Proposed Works	The proposed development works comprise the demolition of the current house and the building of 9 flats in its place.
Survey Methodology	The preliminary bat roost assessment comprised a daytime internal and external inspection of the house, searching for signs of bats and nesting birds. The inspection provides a preliminary assessment of the potential of the site to support roosting bats.
Results of Preliminary Bat Roost Inspection	The site inspection recorded low numbers of bat droppings, likely from brown long-eared bats, within both attic voids. The house is located within an area providing moderate-quality foraging and commuting habitat for bats.
Evidence of Nesting Birds	No evidence of past or current nesting by birds was noted during the surveys either within or on the exterior of the building.
Requirements for Additional Survey	Further surveys are required to determine the species roosting within the house, the roosting location/s and accurately characterise the roost/s. Current evidence suggest that the house is used by roosting bats, possibly by brown long-eared bats. Current best practice guidelines (Collins, 2016) suggest that the house should be subject to two additional dusk emergence or dawn re-entry surveys undertaken between May and September. Four surveyors will be required for each survey.
Predicted Impacts of Development on Bats and Nesting Birds	Full impacts on bats and birds will be considered after the further surveys have been undertaken.
Mitigation and Compensation of Proposed Impacts	Mitigation and compensation measures for bats and birds will be determined after the further surveys have been undertaken.
Licensing Requirements for Bats	A European Protected Species (EPS) development licence is likely to be required from Natural England prior to the demolition of the building. This will be established after the dusk emergence and/or dawn re-entry surveys have been completed and the extent of the proposed work has been decided.
Required Actions	Further surveys are required.

1. Introduction

1.1. Brief

Acer Ecology Ltd was commissioned by Parkgrove Developments Ltd to conduct a preliminary roost assessment of a house, located at 1015 Oxford Road, Reading, RG31 6TL, within the boundary of Reading Borough Council (Ordnance Survey Grid Reference centred at: SU 6726 7524)¹.

1.2. Site Description

The house lies towards the eastern boundary a residential area of Reading, with high-density housing and linked back gardens to its south. Approximately 0.1km to the house's north-east is the River Thames, beyond which lie agricultural fields.

The location of the house is shown on Plan 1: Location Plan.

1.3. Proposed Works

The proposed development works comprise the demolition of the current house and the building of 9 flats in its place. At the time of writing detailed development proposals were not available.

1.4. Legislation and Planning Policy

1.4.1. Bats

All UK species of bat are designated as 'European Protected Species'. Their breeding sites or resting places² (roosts) are fully protected under the Wildlife and Countryside Act 1981³ (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018⁴, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019⁵.

Works affecting bats are subject to licensing procedures by Natural England (NE). The legal protection and licensing procedures are summarised in Appendix 1.

¹ Latitude and Longitude: 51.472203, -1.032891

² Resting places are defined as 'areas that are essential to sustain an animal or group of animals when they are not active' (Anon 2007).

³ <https://www.legislation.gov.uk/ukpga/1981/69>

⁴ <http://www.legislation.gov.uk/uksi/2018/1307/contents/made>

⁵ EU Exit – The European Union (Withdrawal) Act 2018 (the EUWA) will end the supremacy of EU law in UK law, will convert directly applicable EU legislation (in particular, EU Regulations and Decisions) as it stands at the moment of exit into domestic law, and will preserve legislation previously made in the UK to implement EU obligations. The legislation will generally have the same effect that it had before the UK left the EU, unless or until it is changed by Parliament. In some cases, there may be changes in referencing and guidance as a result of secondary legislative amendments.

1.4.2. Nesting Birds

All wild British birds (whilst building nests, nesting and sitting on eggs) and their nests and eggs, (with certain limited exceptions) are protected by law under Section 1 of the Wildlife and Countryside Act 1981⁶ (as amended) and the Countryside and Rights of Way Act 2000⁷. Some species, such as barn owls (*Tyto alba*), are listed in Schedule 1 have additional protection from disturbance during the breeding season as do their nests, eggs and dependent young.

1.5. Survey Scope

The preliminary roost assessment (PRA) comprised a daytime internal and external inspection of the house searching for signs of bats and nesting birds and assessing the potential for bats to roost on site.

1.6. Reporting

This report aims to:

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

⁶ <https://www.legislation.gov.uk/ukpga/1981/69>

⁷ <https://www.legislation.gov.uk/ukpga/2000/37>

2. Methods

2.1. Desk Study

An assessment of the site and surrounding area was carried out, including existing habitats, from maps and aerial photographs. A Geographic Information System (GIS) dataset, obtained from NE was used to search for statutory and non-statutory conservation designated sites for bats within 10km. A 2km search was undertaken for all other statutory and non-statutory conservation designated sites.

A search of the local planning portal was undertaken to look for other sites within the same postcode area which have had bat surveys submitted as a part of their planning application.

A search of the Magic database for granted European Protected Species Mitigation Licences (EPSMLs) within a 2km radius of the site was undertaken.

2.2. Field Study

2.2.1. Daytime Internal and External Inspection

A systematic search was made of the exterior and interior of the house looking for features that bats could use for entering/exiting and roosting⁸. In addition, a search was made for the presence of bats or evidence of bat use, such as droppings, feeding remains, urine staining, scratch marks and the remains of dead bats. The survey was undertaken on 14th October 2023 by Paul Hudson⁹ MCIEEM (NE Licence Number: 2018-36707-CLS-CLS).

A high-powered torch (Clulite), an endoscope (Ridgid Micro CA-300), binoculars and a ladder were available for use, as appropriate during the survey.

Bat droppings¹⁰ were collected into grip seal bags for future analysis if required.

2.2.2. Assessment of Bat Roost Suitability

The value of the site for bats (and any potential roost sites therein) was assessed, in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2016) (see Appendix 2). The assessment was based on the relative abundance and quality of potential roost sites; and the habitat features within both the site and the surrounding landscape, suitable for roosting, foraging and commuting bats.

⁸ Bats may utilise gaps as small as 8mm by 20mm (Bat Conservation Trust, Cluster flies leaflet).

⁹ Paul graduated with a degree in Environmental Biology from Reading University and a Postgraduate Diploma in Conservation Management from the University of East Anglia. He has worked within ecological consultancy since 2000 and has been involved in bat work since 2001. He holds licences to disturb bats in both Wales (S088190/1 valid until June 2022) and England (2018-36707-CLS-CLS valid until 2028). Further details of his qualifications and experience can be found at <http://linkd.in/19aGTf4>.

¹⁰ It should be noted that pygmy shrew (*Sorex minutus*) droppings can closely resemble bat droppings (i.e. this species is an insectivore and so the droppings are crushable, and contain insect remains and so can easily be confused with bat droppings). Pygmy shrew droppings are occasionally found within loft voids.

2.2.3. Survey for Nesting Birds

Searches were carried out for old nests, as well as any signs which might indicate previous nesting activities, such as piles of discarded nesting materials or large aggregations of guano.

2.2.4. Constraints

General Temporal Constraints

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

Timing

The time of year when the preliminary roost assessment was carried out (October) coincides with the period when bats are seeking suitable hibernation sites, and beginning periods of torpor. However, signs of roosting activity from previous summers can still be identified and the potential of a building can be assessed outside the active season. Therefore, the timing of the inspection is unlikely to have significantly constrained the survey.

Data Search

A Local Records Centre (LRC) data search was not undertaken due to the relatively small size and nature of the development. The overall impact on biodiversity is likely to be localised and of low significance and current proposals suggest no land will be lost or linear features severed. It is considered very unlikely that the development will have any impact outside the footprint of the works. The data search results are considered unlikely to impact on the decision-making process and therefore a LRC search has not been undertaken.

3. Results

3.1. Desk Study

3.1.1. European Protected Species Licence Granted Within 2km of Site

European Protected Species Licence (EPSL) records¹¹ show that no licences have been granted for projects within 2km of the house.

3.1.2. Bat Roosts Reported in Planning Applications Within the Same Postcode

The search on the planning portal returned no records of bat roosts within the same postcode area as the proposed development.

3.1.3. Protected Sites

The location of protected sites is shown in Plan 2: Protected Sites.

Special Areas of Conservation (SACs) Notified for Bats Within 10km

No SACs that have been specially designated for bats lie within 10km of the house.

Other Protected Sites Within 2km

SACS and SSSIs within 2km of Site

There are no SACs or SSSIs within 2km of the proposed development site.

LNRs

There are four LNRs within 2km of the site:

- McIlroy Park LNR lies approximately 0.6km to the south-east of the house and 'consists of grassland bordered by semi-ancient mixed woodland which includes oak, hazel and beech as well as an extensive area of holly';
- Round Copse LNR lies approximately 1.1km to the south-east of the house, and is a small woodland contingent with McIlroy Park;
- Lousehill Copse LNR lies approximately 1.6km to the south-east of the house and 'comprises natural mature woodland surrounded by housing and featuring a pond, whilst the northern section of the reserve, also known as Compart's Plantation, is a grassy meadow area'; and
- Blundells Copse lies approximately 1.6km to the south of the house, which, along with Lousehill Copse and McIlroy Park is part of West Reading Woodlands.

¹¹ Accessed via <https://bit.ly/2v6i81e>. The dataset contains granted EPSL applications issued by Natural England. However, it should be noted that the data set is incomplete and only includes granted EPSLs up to May 2019.

Areas of Outstanding Natural Beauty (AONBs)

The proposed development site lies approximately 0.8km to the south-west of the boundary of the Chilterns AONB, and approximately 1.4km to the south-east of the North Wessex Downs AONB. AONBs are designated for their aesthetic and recreational value as opposed to wildlife value. However, they often contain habitats of high ecological value also.

Non-statutory Protected Sites

Mapledurham Country Park lies approximately 1.4km to the north-west of the house and comprises the grounds of an Elizabethan country home.

Ancient Woodland

There are seven areas of ASNW located within 2km of the proposed development site, the nearest of which lies 0.7km to the south-east of the house. In addition, five Planted Areas on Ancient Woodland Sites (PAWS) are present within the same search radius.

Protected Sites Summary

Given the small scale of the proposed development, the localised nature of the proposed works, as well as the limited scope for impacts outside of the footprint of the proposed works, no adverse impacts to the protected sites are likely to occur. These sites are not mentioned any further in this report.

3.2. Field Study

3.2.1. Ecological Context of Site

Lighting

The site is assessed as being within Zone E3¹² (Institute of Lighting Professionals, 2012) as it is situated in a suburban residential area of Reading, and several streetlights are present on Oxford Road which generate extensive artificial lighting, somewhat decreasing the quality of foraging and commuting bat habitat¹³.

Site and Surrounding Habitats

The area to the south of the house predominantly comprises high-density residential housing, most of which have linked back gardens which bats may be able to utilise as ecological corridors to commute along. There are areas of woodland approximately 0.5km and 0.6km to the south and south-east, where bats may potentially forage, however the level of lighting and noise the area is likely to experience at night mean it would be difficult for bats to commute to these woodlands. To the north, the River Thames provides a high-quality ecological corridor along which bats could commute and forage, and beyond which lies

¹² E3: Suburban lighting zone, with medium district brightness.

¹³ Lighting can impact on bats' roosting sites, commuting routes and foraging areas.

agricultural fields and a larger area of woodland approximately 1.3km to the north-east, where bats could forage. As a result, the site provides moderate-quality foraging and commuting habitat for bats.

3.2.2. Building Description from the Perspective of Bat Habitat

The following table summarises the key features of the building.

Table 1: Key Features of Building

Building Type	The building is a two-storey house constructed from brick with rendered walls. There is a single-storey lean-to structure on the north-eastern elevation.
Roof	The roof is ridged and gable-ended and constructed from concrete tiles, which are locally covered in mosses. There are gaps beneath the edge tiles on the north-eastern elevation and some raised ridge tiles.
Lead Flashing	There is raised lead flashing around the intersection of a lean-to on the front elevation.
Soffits, Fascias and Bargeboards	The soffit box is of uPVC design and appears to be in good condition, however there are several small gaps in the soffit box along the north-eastern elevation's hip.
External Walls	The walls are of rendered and painted white and in good conditions, lacking any holes or crevices.
Windows	The windows have uPVC frames and timber lintels, and all appear to be in good condition.
Roof Void	The two roof voids have A-frame design and are both lined with bitumen felt and have insulation material along the deck which is boarded in both voids. A few wasp's nests are present.

Photos Showing the Building and its Features

Photo 1: North-eastern elevation



Photo 2: North-western elevation



Acer Ecology

Photo 3: Concrete roof tiles with localised gaps under ridge



Photo 4: Mossy roof tiles



Photo 5: Gaps beneath edge tiles on north-eastern elevation



Photo 6: Raised tiles at the



Photo 7: Raised flashing around the intersection of monopitched section



Photo 8: Gaps in soffit box



Photo 9: uPVC windows with timber lintels



Photo 10: Roof void's A-frame structure





Photo 11: Rockwool insulation (and droppings)



Photo 12: Wasp nest



3.2.3. Potential Bat Access Points and Bat Roosting Locations

Potential Access Points for Bats

There are a low number of potential access points for bats to gain entry into the interior through the gaps in the soffit box, under lead flashing and under gaps in the ridge tiles.

3.2.4. Evidence of Bats

Small number of droppings were found in both voids (less than twenty in both voids), which were indicative of brown long-eared bats.

Acer Ecology

Photos Showing Droppings

Photo 13: Within the roof void



Photo 14: Within the roof void



3.2.5. Nesting Bird Survey

No signs of birds having recently nested were found during the survey within or on the exterior of the building.

4. Evaluation

4.1. Summary of Preliminary Roost Assessment

The preliminary roost assessment found a low number of droppings within the house's roof void.

4.2. Suitability/Potential for Summer Roosts

From the assessment made during the survey, the house is confirmed as supporting roosting bats, most likely brown long-eared. The building is assessed as having:

- Moderate suitability for use by crevice-dwelling bats (*Pipistrellus* species and smaller *Myotis* species such as Brandt's (*Myotis brandtii*) and whiskered bats (*Myotis mystacinus*)), due to the various potential roosting sites such as the gaps beneath the edge tiles, under the raised tiles and within the gaps in the soffit box;
- Confirmed use by bats, likely long-eared bats within the roof void; and
- Negligible suitability for use by direct-access species requiring a large access point and large roost space (lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe (*Rhinolophus ferrumequinum*) bats)), due to the lack of direct access into the house and being outside of their geographic range.

This assessment will be used to determine the level of further survey effort required (see Section 5 and Appendix 2).

4.3. Potential Winter Roosts

A full assessment of potential for winter use (i.e hibernation) will be undertaken after the completion of further dusk emergence and dawn re-entry surveys.

4.4. Birds – Interpretation of Nesting Bird Survey

No evidence of past or current nesting by birds was observed during the survey. An updated assessment of nesting birds will be undertaken after the completion of further dusk emergence and dawn re-entry surveys.

5. Required Actions

5.1. Further Work

Works should not commence until further surveys have been carried out. This will enable the likely impacts of the proposals on bats to be assessed, confirm a NE European Protected Species development licence will be required, inform the avoidance measures (timing of works), and determine the requirement for mitigation (retention of roosts and access points) and/or compensation measures (creation of new replacement/additional bat roosts).

Current best practice guidelines (Collins, 2016) state that two separate survey visits should be undertaken on a house with moderate roost suitability comprising one dusk emergence and a separate dawn re-entry survey. The surveys should be undertaken from May to September with at least one of the surveys between May and August.

To ensure that all potential bat access/roosting features are covered, both surveys will require at least three surveyors to be present (i.e. surveyors positioned facing each elevation; see Plan number: Proposed Surveyor Positions).

Surveys should be timed to sample as much of the survey period as possible¹⁴, and undertaken at intervals of at least two weeks apart, or preferably more (Collins, 2016), to increase the possibility of encountering bats that may only use the building for short periods throughout the summer. Ideally, at least one survey should be undertaken in the core maternity period of mid-June to mid-July.

5.2. Licensing Requirements for Bats

A NE European Protected Species development licence with respect to bats is likely to be required prior to demolition. This will be determined after the emergence/re-entry surveys have been completed.

5.3. Longevity of Report

Bat Surveys for Professional Ecologists (Collins, 2016) states that the survey data should ideally be from the last survey season before a planning or licence application is submitted, although the length that survey data remains valid should be decided on a case-by-case basis and is dependent upon several factors¹⁵. It is considered that if development works do not begin within eighteen months (CIEEM, 2019) to two years of the date of this report, an update survey may be required in accordance with guidance in BS

¹⁴ Some local authority supplementary planning guidance state that surveys must be spaced at least a month apart throughout the summer).

¹⁵ The factors identified are as follows: Were the original surveys carried out according to good practice guidelines?; Were the original surveys constrained in any way?; Do the results of the original surveys support the original conclusions and are these still relevant?; Has the nature of the site or the surrounding area changed since the original surveys were undertaken; and are additional surveys likely to provide information that is material to a decision, the design of mitigation measures, or specific advice relating to a proposed activity.

Acer Ecology

42020:2013¹⁶and CIEEM (2019), to determine if conditions and evidence of bat use has changed since described in the current report.

¹⁶ As set out in Section 6.2.1, Point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

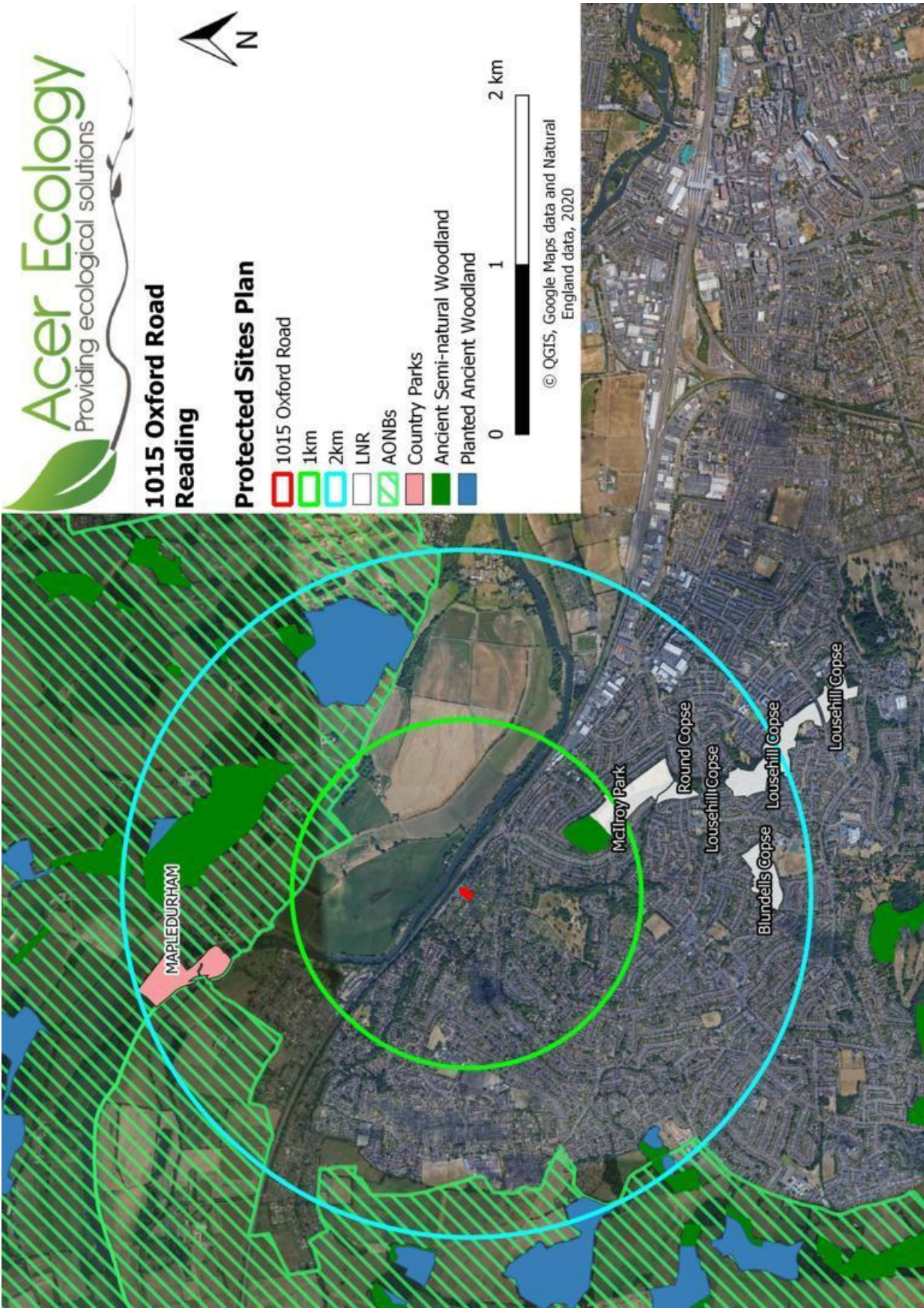
6. References

- Anonymous (2007)** *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*. Final version, February 2007.
- BSI (2013)** *BS 42020:2013 Biodiversity – Code of practice for planning and development*. British Standards Institution, London.
- CIEEM (2019)** Advice Note on the Lifespan of Ecological Reports and Surveys <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>
- CIEEM (2016)** *UK Guidelines for Accessing and Using Biodiversity Data*. Chartered Institute of Ecology and Environmental Management (CIEEM).
- Collins, J (ed) (2016)** *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- Eaton, M, Aebischer, N, Brown, A, Hearn, R Lock, L, Musgrove, A, Stroud, D and Gregory, R (2014)** Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds* 108. December 2015. 708-746. Available online at <http://bit.ly/2h23DqV>.
- Institute of Lighting Professionals (2012)** *Guidance for The Reduction of Obtrusive Light*.
- Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004)** *Bat Workers' Manual (3rd Edition)*. Joint Nature Conservation Committee, Peterborough.
- Mitchell-Jones, A.J. (2004)** *Bat Mitigation Guidelines*. Natural England, Peterborough.

Plan 1: Location Plan



Plan 2: Protected Sites





Appendix 1: Bat Ecology and Legislation Protecting Bats and Their Roosts

Bat Ecology

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

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

Legislation

All British bat species and any place used for shelter or protection, or a breeding site or resting place (their roosts) are fully protected under the amended Wildlife and Countryside Act 1981 through inclusion in Schedule 5. The roosts are protected irrespective of whether bats are present at the time. All bats are 'European Protected Species' and fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019. These pieces of legislation make it illegal to deliberately or recklessly:

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

Disturbance is defined as that which is likely to impair bats ability:

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

Habitats Regulations Licensing

If a European Protected Species will be affected by a development, Natural England (NE) can issue licences under the Habitats Regulations to permit otherwise prohibited acts. Licences for certain activities can be granted providing “3 tests” are satisfied, that is:

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

Licences are issued by NE, with NE assessing Test 3, and the Local Planning Authority assessing tests 1 & 2 (where proposals are not subject to planning, then NE alone will assess all three tests). Where Planning regulations apply, NE will only issue a licence after determination of the planning application.

The licence application will require the production of a detailed method statement, which sets out the activities to be carried out under the licence to minimise the risk of bats being harmed during construction works, and to ensure that bats will be conserved during the development of the site. This will need to detail the mitigation proposed (such as the replacement or compensation roost), the timescale and schedule of works, the number, size and locations of bat access points to be provided, the type of materials to be used (roofing material, roof lining, fascias, soffits and bargeboards etc.), lighting proposals, action to be taken in the event bats are found during works and a post-development monitoring programme. The method statement will need to be accompanied by scaled plans and maps detailing the bat mitigation features. A cross-section of the access points and roost space is often required. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of development works. In some instances, a method statement is requested by the Local Planning Authority or Natural England before the planning application is determined.

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

National Planning Policy Framework (2018)

The National Planning Policy Framework (2018) states that the presence of a protected species should be a material consideration when considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat.

Appendix 2: Guidelines for Assessing Potential Bat Roosting Suitability and Determining Required Number of Dusk/Dawn Surveys

Suitability	Description of Roosting Habitat	Minimum Number of Dusk/Dawn Surveys Required ¹⁷
Negligible	Negligible habitat features on site likely to be used by roosting bats.	None.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection appropriate conditions ¹⁸ 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) or hibernation ¹⁹ .	One survey visit. One dusk emergence or dawn re-entry survey (Survey period from May to August) (Collins 2016).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status ²⁰ (with respect to roost type only) the assessments in this table are made irrespective of conservation status, which is established after presence is confirmed.	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey ²¹ . Surveys should be undertaken from May to September with at least one of the survey between May and August (Collins 2016).
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 and surrounding habitat.	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. Surveys should be undertaken from May to September with at least two of the surveys from May to August (Collins 2016).
Confirmed Roost	Evidence of bats or use of bats found.	Minimum of two required to characterise the roost. If it is not possible to characterise the roost on the basis of two surveys, additional surveys may be required. In the event that no evidence of bat roosting is detected during the dusk and dawn surveys a third survey may be required. In this situation DNA analysis of the droppings may also be required.

¹⁷ Adapted from Tables 7.1 and 7.3 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

¹⁸ For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

¹⁹ 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 *et al.*, 2015). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for large numbers of this species to be present during the autumn and winter in large buildings in highly urbanized environments.

²⁰ 'High roost status' is not defined within Collins, 2016. Acer Ecology Ltd. interpret maternity, hibernation, swarming sites, mating sites, and satellite roosts as being of 'high roost status' and exclude day roosts, night roosts, feeding roosts, transitional/occasional roosts from this definition. Pre-maternity/collecting roosts are not included within Collins, 2016 and will be assessed on an individual basis.

²¹ Multiple surveys should be spread out to sample as much of the survey period as possible. It is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk survey is considered only one visit.

Acer Ecology

Appendix 3: Guidelines for Assessing Bat Habitat Suitability

Suitability	Commuting and Foraging Habitat
Negligible	Negligible habitat features on-site likely to be used by commuting and foraging bats.
Low	<u>Commuting Habitat</u> Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. <u>Foraging Habitat</u> 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	<u>Commuting Habitat</u> Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. <u>Foraging Habitat</u> Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	<u>Commuting Habitat</u> Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. <u>Foraging Habitat</u> 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. <u>Proximity to Known Bat Roosts</u> Site is close to and connected to known roosts.