



Willowbrae,
The Warren,
Caversham,
Reading,
Berkshire,
RG4 7TQ

Preliminary Roost Assessment Report

May 2021



Ref: 21-8099

QUALITY STANDARDS CONTROL

The signatories below verify that this document has been prepared in accordance with our quality control requirements. These procedures do not affect the content and views expressed by the originator.

This document must only be treated as a draft unless it has been signed by the originators and approved by a director.

Revision	-
Date	26/05/2021
Prepared by	P. Holden (on behalf of Syntegra Consulting Ltd)
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Note

The advice which we have prepared and provided within this report is in accordance with the CIEEM Code of Professional Conduct. We confirm that the opinions expressed are our true and professional opinions. Opinions and information provided in the report are based on Syntegra Group Ltd using reasonable skill, care and diligence in the preparation of the same in compliance with the CIEEM Code of Professional Conduct.

Validity of Data

The findings of this study are valid for a period of 12 months from the survey date. If the approved works have not commenced within the 12 months, it may be necessary to have an updated survey carried out to allow for any changes in the status of bats on site to be assessed and to inform any mitigation or recommendations.

LIMITATIONS

Syntegra Consulting Ltd ("SC") has prepared this report for the sole use of the clients, **Miia Laurikainen & Tim Putnam**, in accordance with the agreement under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by SC.

The conclusions and recommendations contained in this report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by SC has not been independently verified by SC, unless otherwise stated in the report.

The methodology adopted and the sources of information used by SC in providing its services are outlined in this report. The work described in this report was undertaken in **2021** and is based on the conditions encountered and the information available during the said period of time. The scope of this report and the services are accordingly factually limited by these circumstances.

Where assessments of works or costs identified in this report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

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No allowance has been made for changes in prices or exchange rates or changes in any other conditions which may result in price fluctuations in the future. Where assessments of works or costs necessary to achieve compliance have been made, these are based upon measures which, in SC's experience, could normally be negotiated with the relevant authorities under present legislation and enforcement practice, assuming a proactive and reasonable approach by site management.

Forecast cost estimates do not include such costs associated with any negotiations, appeals or other non-technical actions associated with the agreement on measures to meet the requirements of the authorities, nor are potential business loss and interruption costs considered that may be incurred as part of any technical measures.

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APPENDIX I: SITE PHOTOGRAPHS

1 EXECUTIVE SUMMARY

Syntegra Group was commissioned by the applicants, Miia Laurikainen & Tim Putnam, to conduct a preliminary roost assessment (PRA) at Willowbrae, The Warren, Caversham, Reading, Berkshire, RG4 7TQ, (Grid Ref: SU 69637515) in support of a Planning Application.

The site consists of a detached dwelling set within hard standing grounds, surrounded by pockets of Improved grassland, mature trees, semi-mature trees, and garden typical planting.

A preliminary roosting assessment and nesting bird assessment were undertaken on the 12th of May 2021.

The existing building is best described as a two- storey brick built residential dwelling under a plain-cement tiled roof.

The proposals are to include a new residential dwelling, with the existing dwelling demolished to accommodate the new dwelling.

The internal inspection of the dwelling noted two loft spaces with potential access points identified within each space. No signs of bats in the form of marks, stains, droppings, and or debris were noted at the time of the inspection.

The external survey of the dwelling noted potential access points and crevice roosting opportunities within the roof space at the front and rear elevations.

The search of DEFRA's MAGIC Maps returned eight known EPSM applications for known bat roosts within 2km of the site. The application site is within 15 metres of deciduous woodland, a s41 habitat of principle importance.

Under BCT guidelines, the dwelling was deemed as low potential for hosting roosting bats. In line with BCT guidelines, a further dusk or dawn echolocation study will be required to determine likely absence or confirmed presence of roosting bats.

The internal and external survey on the dwelling noted no signs of active nesting birds.

Signs of badger foraging and set paths/trails were noted within the front and rear grounds, an active sett has been identified within 20 metres of the site boundary. Further surveys will be required to determine the mitigation measures for the proposed works.

2 INTRODUCTION

2.1. Syntegra Group was commissioned by the applicants, Miia Laurikainen & Tim Putnam, to conduct a preliminary roost assessment (PRA) at Willowbrae, The Warren, Caversham, Reading, Berkshire, RG4 7TQ. The surveys were carried out on the 12th of May 2021.

2.2. The proposals are a new dwelling and in order to accommodate the proposals, the existing dwelling will be demolished.

2.3. All bat species are protected by European and national legislation. A bat survey is therefore required to determine the presence or likely absence of bats at the site. The survey aimed to determine whether bat species are present at this site, the type of roost at the site, and the population size.

2.4. The brief was to survey the proposed development site and identify the presence or likely absence of bats and nesting birds. Syntegra Consulting undertook a basic internet-based search of statutory designated sites and known EPSL within 2km of the site using the Natural England/DEFRA web-based MAGIC database (www.MAGIC.gov.uk) for MAGIC. Recommendations will be made as necessary in order to inform a mitigation strategy and licence application if required.

3 LIMITATIONS

3.1. The daytime inspection was conducted in May, a period when bats are active depending on conditions and temperatures (BCT Guidelines, 2016). Whilst evidence of roosting can be confirmed by a daytime inspection alone, very often features that could support bats cannot be searched thoroughly to confirm whether bats are indeed roosting. *In line with BCT guidelines, daytime inspections are not considered enough survey effort to conclude likely absence of roosting bats and to ensure no offence is being committed by proposed works.*

3.2. Desktop data searches are a valuable tool in evaluating a sites potential to hold protected species. However, it is not an absolute in confirming presence or absence of species due to the nature of how the records are collected and shared. In order to ensure a comprehensive search of all known bat records within 2km of the site, it is always recommended that the client commissions a local biological records data search to inform the report.

3.3. All areas and aspects of the building that were accessible were fully surveyed by the assessor by torch, and binoculars. The upper sections of the dwellings roof and walls could not be fully surveyed given their height and limited accessibility to the surveyor, however binocular inspection was used and considered sufficient for determining potential or aiding in ruling out potential.

3.4. This report only applies to the proposals at the time of survey. Any alterations to plans may render the report void and/or require further surveys and should be communicated to the ecologist at the earliest opportunity.

3.5. The client is responsible for reading and understanding the advice given in this report. The client must ensure that, where recommended, mitigation is followed through.

4 LEGISLATION

4.1. This section details the legislation relevant to the protection of species and habitats. It also details the relevant policies within national, regional, and local planning policy.

4.2. The National Planning Policy Framework in summary requires that the planning system should aim to contribute and enhance the natural and local environment. The aims are to protect and enhance valued landscapes as well as geological conservation interests and soils; recognising the wider benefits of ecosystem services; and minimising impacts on biodiversity and providing net gains in biodiversity where possible.

4.3. All species of bats are strictly protected through UK and European regulations. Bats have been placed on protected lists due to the overall steady decline of species over the last century. They are protected under the Wildlife and Countryside Act 1981 (as amended), under which bats are protected from intentional or reckless disturbance.

4.4. Under Regulation 43 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, it is an offence to deliberately capture or kill a wild animal of a European protected species, deliberately disturb any such animal and/or to damage or destroy a breeding site or resting site. Since August 2007, amendments to the Conservation (Natural Habitats) Regulations 1994 have changed the term 'deliberately disturb' such that it is an offence if the species are disturbed in such a way that it is likely to significantly affect the colony's ability to survive, breed or rear their young; or affect the local distribution or abundance of that species. If the deliberate disturbance is considered to fall below the threshold for the regulations, no licence under this legislation is necessary, but the disturbance may still be an offence under Wildlife and Conservation Act 1981 (as amended).

4.5. Licences are needed if the disturbance has a significant effect on the bat colony and would otherwise be an offence. Licences are granted after strict following of Section 55 under the Habitat Regulations, following the submission of a licence application to Natural England. Licences permit the work that is otherwise considered to be an offence under the legislation.

4.6. Natural England (NE) is the authority for determining licence applications for works associated with developments affecting bats. In cases where licences are required, certain conditions must be met to satisfy Natural England under the three tests set out in Habitats Regulations when granting licences. These tests are:

*The consented operation must be for "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment"; and
There must be "no satisfactory alternative"; and*

The action authorised "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".

4.7. In order to meet the tests, Natural England expects the planning position to be fully resolved. Full planning permission, if applicable, will need to have been granted and any conditions relating to bats fully discharged.

4.8. All native birds receive protection whilst nesting under the Wildlife and Countryside Act 1981 (as amended). Barn owls receive additional protection under Schedule 1 and 9 of the Wildlife and Countryside Act (as amended).

5 METHODOLOGY

5.1. On the 12th of May 2021, internal and external inspections were carried out. The surveys were carried out by Patricia Holden MSc MCIEEM, the Director of Ecology Services at Syntegra Group. Patricia Holden MSc MCIEEM is an experienced ecologist who has undertaken numerous bat and nesting bird surveys and has undergone professional training in bat surveying techniques (Bat Licence # upon request). The survey followed guidelines by the Bat Conservation Trust (2016) Bat Surveys Good Practice Guidelines 3rd edition. Any bat droppings found were noted for shape, size, texture, and age. The survey also assessed the site to support foraging and commuting bats in line with BCT Good Practice Guidelines. The dwelling was assessed as either negligible, low, moderate, high, or confirmed potential - refer to Table 1 below.

Table 1: Roost Classification, adapted from Collins 2016

Category	Description of Roosting Habitat	Number of Surveys Required
Negligible	Little to no suitable locations for roosting, not ideal for supporting bats.	No further surveys.
Low	A structure with one or more potential roosting spaces that could be used by opportunistic individual. The features and surrounding habitats do not provide enough suitable conditions and or space for use as a maternity or hibernation roost.	One survey carried out between the May and August (dusk or dawn).

Moderate	A structure with one or more potential roosting spaces that could be use by individuals based on the features (size, shelter, conditions, and surrounding habitat) but unlikely to support a roost of high conservation value.	Two further surveys (one dusk and one dawn, spaced two weeks or more) between May-September with one survey between May and August.
High	A structure with one or more potential roosting spaces that are suitable for use regular use and or larger numbers of bats for a more prolonged period due to the conditions and surrounding habitats.	Three further surveys (at least one dawn) carried out between May to September with two undertaken between May to August. The surveys must be undertaken two weeks apart, spaced surveys are preferred.
Confirmed	Positive evidence of bats - i.e. droppings, individuals, or bat records.	

5.2. **Bats Internal and External Inspections**

5.2.1. The internal inspections of the dwelling identified features of interest and potential bat roost sites. The floor spaces within the dwelling were searched for evidence of bats in the form of droppings and insect debris. Within the roof spaces, features such as cracks, crevices, and ridge beams were inspected for droppings, insect debris, urine stains or markings, scratchings, and bat remains.

5.2.2. The external survey of the dwelling identified features of interest such as likely exit and entrance points; examples include: holes in walls, gaps in windows and doors, cracks in stonework, hanging roof tiles, and loose eaves. The grounds around the dwelling were searched for evidence of bats such as droppings or feeding remains.

5.3. **Desktop Study**

5.3.1. Records of protected species in the form of known EPS Licences and statutory designated wildlife sites within 2km of the site were obtained via Magic.gov.uk. These records have been used to inform recommendations made in this report. It is always recommended for a more comprehensive record search in line with BCT guidelines, CIEEM report guidelines, and a requirement for all EPSL Applications, that the client commissions a bat records search. Without a local record search, it is unknown whether known roosts or individual records of species are within 2km of the site.

6 RESULTS

6.1. Position in the Landscape

6.1.1. Grid reference: SU 69637515

6.1.2. The residential site is located within Caversham. The site is accessed via a lane off The Warren, an area that is characterised by moderate density-built form and surrounded by further residential land, River Thames, woodland, and minor roads.



Figure 1: OS Image of the Site with Sketched Red Line Boundary Sourced from Agent

6.1.3. The dwelling is situated within hard standing grounds. The surrounding landscape is typical of residential grounds with areas of hard standing, Improved grassland, garden typical planting, and trees. The grounds show signs of regular management. The adjacent landscapes as viewed on Google Earth and DEFRA's MAGIC Map, show further residential land, minor roads, church, River Thames, and woodland. The site itself is of moderate foraging and traversing value for local bats. The offsite habitats consisting of woodland and River Thames are of high value for local traversing and foraging bats.

6.1.4. No part of the site contains, or is within, statutory sites of nature conservation interest, such as a Site of Special Scientific Interest (SSSI), Special Protection Areas (SPA), and/ or Special Area of Conservation (SAC). Deciduous woodland, a Section 41, habitats of principal importance, is located 15 metres north of the site. The River Thames is located to the southern boundary of the site.



Figure 2: DEFRA's MAGIC Map identified areas of deciduous woodland (dark green), within close proximity to the site

6.1.6. A MAGIC search for any Granted European Protected Species Applications within 2km of the site, returned eight known EPSL Applications. The applications ranged from 2010 to 2016 for the damage and or destruction of known resting places and breeding sites for common pipistrelle, brown long-eared, and soprano pipistrelle. The closest application was for the destruction of known resting places for common pipistrelle, 120m east of the site (2015).

6.1.7. During the external survey signs of badger use were identified on site with evidence of digging, foraging, and set paths/trails within the adjacent properties. Upon further investigation by the ecologist sett entrances with evidence of activity were found, the Google image below details the location in proximity to the proposed site. Figure 3 also shows the set badger runs/trails noted during the survey. Personal communication with the neighbours at the time of survey informed the ecologist that the badger setts are active and often see the badgers at night near the setts and within their gardens. One sett entrance was located within 15 metres of the site boundary, a further sett entrance 20m, and the more active sett with recent digging was within 25 metres of the site boundary.



Figure 3: Location of badger setts and notable badger activity on the site: Source Google Maps

6.2. External inspections

6.2.1. The site surveyed consisted of a detached dwelling. The exteriors of the buildings were inspected for access points and evidence of bats and nesting birds.

6.2.2. The main residential building is best described as a two-storey brick built dwelling under a plain cement tiled roof.

6.2.3. The table below summarises the external survey of the dwelling and identifies the confirmed and potential features along with the overall potential. Under the section Confirmed Evidence/Potential, green denotes limited to low potential for use by roosting bats and yellow denotes potential for use by roosting bats.

Table 2: Summary of the Dwellings Features, Confirmed Presence and or Potential

Location	Feature	Confirmed Presence or Potential
Walls	Brick walls, small section of cement hanging tiles on front elevation.	Walls in a good state of repair with no holes, gaps, or missing sections. OVERALL: Limited Potential for Access and Crevice Space.
Walls	uPVC soffits	Intact and sit tight against walls.

		OVERALL: Limited to No Potential for Access and Crevice Space.
Roof	Plain cement tiles with brick chimney and lead flashing	Central pitched roof section with notable missing cement on edge tiles on front and rear elevation. One lift in tiles where the pitched roofs join. OVERALL: Potential for Access and Crevice Space



Figure 3: Location of Notable Features Identified During Dwelling External Inspection; Image Source: Google

6.3. Internal inspections

6.3.1. The internal inspections of the buildings examined features of interest, potential bat roost sites, and bird nesting areas.

6.3.2. In summary, the dwelling had two loft spaces with one located within the western and eastern sections.

6.3.3. In summary, the western loft space, had a sloped space with no gable walls and a ridge height of 1.8 metres. The roof space was lined with expandable foam. One render chimney was located on the southern roof slope enclosed with timber and foam. One hole with an area of visible light was located on the south-eastern side of the loft space. The insulated and plywood floors noted no stains, notable debris, and or droppings.

6.3.4. In summary, the eastern loft space, is accessed via a wall hatch and consisted of a small crawl space with cement walls and a ladder that leads to the roof void. The roof void noted a sloped space with no gable walls and a ridge height of 1.5 metres. The roof space was lined with bitumen felt with timber battens and beams. The plywood floors noted no stains, notable debris, and or droppings. Within the south-western corner of the loft space was a small hole with visible light leading to the adjoining pitched roof space, torn felt with visible light was noted around the vent within the southern slope.

7 ASSESSMENT

7.1. The internal survey of the dwelling loft spaces noted potential access points with visible light suggesting potential external access. The use of expandable foam within the western loft space reduces the overall potential for crevice roosting bats.

7.2. The external survey of the dwelling noted potential access points and crevice roosting opportunities within the tiled roof space. It is considered that the external features could support bats if the spaces were unrestrictive allowing for movement of individuals to accommodating their need for suitable microclimatic conditions. Given the use of expandable foam, it is considered that the only roosting spaces available would be limited to the space between the tile and more restrictive underlay caused by use of insulation foam, reducing the overall potential for use. Of the potential areas noted these are within a roof space with no loft or void rather living space extending into the roof space, so it is considered there would be reduced space for movement for potential roosting bats.

7.3. The site is set within the residential area of Caversham. The grounds are typical of residential grounds with areas of hard standing, garden typical planting, Improved grassland, and trees. The wider local landscape as viewed on Google Earth and MAGIC Maps show further residential land, River Thames, woodland, and minor roads. The site's habitats overall have moderate value for foraging bats and traversing bats. The wider landscape with areas of River Thames and woodland provides high potential for use by local bats for both traversing and foraging grounds.

7.4. The desktop study by use of Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) returned eight known EPSL Applications for roosting bats, with the closest

application for common pipistrelle within 120 metres of the site. The site is within 15 metres of deciduous woodland, a NERC s41 habitat of principal importance.

7.5. In line with Bat Conservation Trust's Good Practice Survey Guidelines (3rd edition, 2016), buildings with low potential for roosting bats require further surveys in line with Table 1, with one survey required during the active survey season undertaken in suitable conditions. When undertaking further survey, the dwelling must ensure that the correct number of surveyors are used to ensure coverage of identified features in line with BCT guidance.

7.6. The further survey will be required to determine the likely absence or confirmed presence of roosting bats. The dwelling is deemed as low potential, however, should evidence of an active roost(s) be found, an additional dusk or dawn survey will be required to inform the EPSM Licence.

7.7. The external survey noted no evidence of remnant or active nesting birds. The grounds around the dwelling with mature trees provide potential for use by nesting birds. Works in close proximity to the dwelling should avoid the active nesting bird season unless first checked and advised by a suitably qualified ecologist.

7.8. The grounds are the dwelling had confirmed evidence of use by traversing and foraging badgers. Evidence of an active sett was located within 20 metres of the site. Given the proposals could cause a disturbance to the active sett, further badger surveys will be required to determine if further mitigation measures will be required for the works. Future fencing will require mammal gates to allow for unrestrictive movement for the local badgers. During the construction phase any holes, ditches and/or trenches must be covered or placement of an inclined mammal ladder to provide a means of escape.

7.9. Given the proximity to the s41 woodland and River Thames, the works will need to ensure best practice to limit pollution in regard to debris, materials, and/or spills.

7.10. Future enhancements for bats can be achieved by further planting of native and wildlife-friendly species within the grounds that attract insects (such as jasmine, evening primrose, rosemary, ivy, lavender, and honeysuckle) to provide good foraging grounds for local bats. Lighting proposals will be further determined by the 2021 dusk survey. If light sensitive species are recorded on site, then these will be in line with ILP and BCT Guidance Note 8.

8 CONCLUSION

8.1. The site is located within Caversham, and is surrounded by further residential land, River Thames, woodland, and minor roads.

8.2. The site consists of a residential dwelling set within hard standing grounds.

8.3. The proposals are a replacement dwelling.

8.4. The internal inspection of the dwelling noted potential access points and limited potential crevice roosting opportunities. No signs of bats in the form of marks, stains, droppings, and or debris was noted.

8.5. The external survey of the dwelling noted potential access points and crevice roosting opportunities within the roof space.

8.6. The site is within 15 metres of deciduous woodland, a s41 habitat of principal importance.

8.7. The use of DEFRA's MAGIC Maps has identified eight known EPSM for roosting bats within 2km of the site, with one application with common pipistrelle bats within 120 metres of the site.

8.8. At the time of the survey no active signs of nesting birds were noted, however the surrounding vegetation in close proximity to the dwelling offer potential nesting opportunities.

8.9. The grounds around the dwelling noted confirmed signs of use by badgers and an active sett within 20 metres of the site. Further investigation surveys will be required to determine the mitigation required for the proposed works. It is advised that all holes, trenches, and/or ditches during the construction phase have an inclined mammal ladder provided for means of escape. Any future fencing must ensure free movement for the local badgers.

8.10. The dwelling was deemed as low potential for roosting bats.

8.11. To ensure that this site complies with wildlife legislation and the National Planning Policy Framework, the following recommendations are made:

8.11.1. In line with BCT Guidelines (2016), buildings with low potential require a further activity survey, carried out during the active season May to August inclusive. The further surveys will inform the mitigation measures.

8.11.2. Lighting proposals will be informed by the further 2021 surveys.

8.11.3. As the site is within close proximity to section 41 habitats of principal importance and the River Thames, measures must be in place to ensure no debris, materials, or spills enter into the areas.

8.11.4. Given the evidence of an active badger sett within 20 metres of the site, further investigation surveys will be required to determine the mitigation measures for the proposals.

References:

Collins (2016) Bat Surveys: Good Practice Guidelines, 3rd edition, Bat Conservation Trust.

Department for Communities and Local Government (2019). National Planning Policy Framework.
www.communities.gov.uk

MAGIC. Multi-Agency Geographic Information for the Countryside. <https://magic.defra.gov.uk/>

Mitchell-Jones, A. J. Bat Mitigation Guidelines. Jan 2004. English Nature.

Stebbing, R.E, Yalden, D.W., Herman, J.S. Which Bat Is It? The Mammal Society. 2007.

Appendix I: Site Photographs



Evidence of badger foraging within rear garden



Digging and set path under front fence used by badgers to access gardens



Sett entrance found 15 m north of site boundary



Additional sett noted within 20 metres of the site boundary



Digging and sett within 25 metres of site boundary



Location of badgers within adjacent woodland parcel



Rear elevation of dwelling



Missing cement in tile adjacent to flashing in rear elevation



Missing cement within front elevation



Internal western loft with foam roof space



Visible light within corner of western loft space



Visible light and small gap leading to adjoining roof space in eastern loft