



Bat Survey Report

Reading Community Church, Oxford Road, Reading

Client Name: CPL Architects

Project Number: P2894.1.0

Date: 30 June 2017

Client:	CPL Architects
Site:	Reading Community Church, Oxford Road, Reading
Report ref.:	P2894.1.0
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1 Summary

Site	Reading Community Church, Oxford Road, Reading
Central OS Grid Reference	SU 69443 73697
Report Commissioned by	CPL Architects
Date of Roost Assessment	1 st June 2017
Dates of Nocturnal Surveys	Dusk emergence survey: 12 th June 2017 Dawn re-entry survey: 30 th June 2017

Bat Survey Results	Preliminary Roost Assessment	No evidence of roosting bats was recorded; although the church was considered to hold moderate suitability for roosting bats and the out-building held negligible suitability.
	Nocturnal Surveys	Two follow-up emergence / re-entry surveys of the church were undertaken in line with standard guidance (Collins, 2016). No bats were recorded emerging or entering the church. This building is therefore considered to be of negligible importance for bats. No further action is required and no constraints to works affecting this building are presented by bats.
	General Bat Activity	No discernible foraging or commuting bat activity was noted on site. Overall the site is considered of negligible importance for foraging and commuting bats.
Further Surveys	-	Not required.
Avoidance and Mitigation	-	Stop works immediately and seek advice from a suitably bat licenced ecologist in the event that a bat is discovered during works.

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Appendix 1 Legislation and Policy

Appendix 2 Bat Survey Results

2 Introduction

2.1 Background

agb Environmental was commissioned by CPL Architects to undertake bat surveys at Reading Community Church, Oxford Road, Reading, hereinafter referred to as the 'site'. The surveys comprised a Preliminary Roost Assessment (PRA) and nocturnal surveys of the church on-site. Recommendations for avoidance, mitigation and enhancement for bats are included in this report where applicable.

2.2 Site Location and Description

The site was situated within an urban location and centred around Ordnance Survey Grid Reference SU 69443 73697. The site comprised two buildings and hard-standing. Dense housing and commercial buildings, busy street-lit roads and other urban infrastructure were located on all sides of the site. High noise levels from road traffic was noted and there were only a few native and ornamental shrubs and trees in the car-park at the rear of the property or in the adjacent gardens. The wider area was similar, and the nearest greenspace (parkland) through which the River Thames flows, was 530m north.

2.3 Development Proposals

The client proposes to demolish the two existing buildings, which form the Reading Community Church. A new building is proposed which will comprise a ground floor dedicated to church and community use, with residential dwellings on the floors above. Access and parking are also proposed.

2.4 Legislation and Policy

All UK species of bats and their roosts are strictly protected under European and UK legislation (*Conservation of Habitats and Species (Amendment) Regulations 2012* (CHSR), and the *Wildlife and Countryside Act, (1981)* (WCA). Four UK bat species are also listed under Annex II of the Habitats Directive. Refer to **Appendix 1** for further information about the legislation and planning policies that protect bats.

2.5 Objectives

The objectives of the surveys and this assessment are to:

- Assess presence / likely absence of roosting bats within the buildings on site;
- Identify the species, numbers, usage and access points (if roosting bats are present);
- Determine habitat usage within the site by foraging and commuting bats;
- Assess any impacts that the development may have on any roosting bats;
- Determine the need for a Natural England European Protected Species (EPS) Mitigation Licence;
- Inform any avoidance, mitigation and enhancement measures, if required; and
- Feed into refinements for the masterplan.

3 Methodology

3.1 Summary of Survey Methods

A PRA of the site concluded that the church held **moderate suitability** and a small church hall with an adjoining cellar held **negligible** suitability for roosting bats. Two follow-up nocturnal surveys of the church were therefore undertaken in line with the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Best Practice Guidelines* (Collins, 2016).

3.2 Surveyor Information

The bat surveys were undertaken by the following suitably experienced staff:

- Principal Ecologist Cassie Todd BSc (Hons) MCIEEM (WML-CL18- Level 2 bat licence number 2015-15941-CLS-CLS and Named Ecologist on EPS Mitigation Licences);
- Ecologist Owen Jones BSc (Hons); and
- Assistant Ecologist Sam Manning BSc (Hons).

3.3 Data Search

The Multi-Agency Geographical Information for the Countryside (MAGIC) website was accessed on the 21st June 2017 for information on the location of any statutory sites designated for bats within 2km of the application site.

MAGIC was accessed on the 21st June 2017 to identify any bat Mitigation Licences granted by Natural England within a 2km radius.

3.4 Preliminary Roost Assessment

A daytime roost assessment was conducted on the 1st June 2017. The weather during the survey was noted to be 22°C with a light breeze (Beaufort scale 1) and 0% cloud cover.

Equipment used to investigate the buildings included; binoculars, a ladder, an endoscope and a high-power torch. The buildings were described and surveyed for bats and their evidence, which includes droppings, staining, scratch marks and feeding remains. Each building was then assigned a level of suitability for roosting bats as outlined in **Table 3.1** below.

Table 3.1: Classifying the bat roosting suitability of buildings (Collins, 2016).

Confirmed Roost	Evidence of bat occupation found.
High Roosting Suitability	With significant roosting potential, either because they contain a large number of suitable features or those features present appear optimal.
Medium Roosting Suitability	Features with moderate roosting potential, with roosting features appearing less suitable.
Low/Negligible Roosting Suitability	Buildings with few, if any, features suitable for roosting.

3.5 Nocturnal Surveys

The church was subject to one emergence survey and one dawn re-entry survey. The emergence survey commenced 15 minutes before sunset and continued for c. 1.5 hours after sunset. The re-entry survey commenced 1.5 hours before sunrise and finished 15 minutes after sunrise. Refer to **Table 3.2** for the survey dates and weather conditions.

Two surveyors watched the building for bat activity from key points around the church: one surveyor faced the north elevation and the other faced the south elevation.

The surveyors used an Elekon BatLoggerM and a Batbox Duet frequency division detector with a Roland R-05 recorder. Any bat activity observed within the site, including species, flight direction and behaviour were recorded. Bat calls were then analysed using Bat Explorer and Bat Scan software.

Table 3.2: Times and weather conditions of the emergence / re-entry surveys.

Date (2017)	Sunrise (24 Hrs)	Sunset (24 Hrs)	Survey Duration	Weather Conditions
12 th June	-	21:21	21:05 – 22:55	18°C, wind 1, cloud cover 0% and nil rain.
30 th June	04:51	-	03:20 – 05:00	19 °C, wind 1, cloud cover 100% and nil rain.

3.6 Evaluation and Impact Assessment

The evaluation of any bat roosts is made with reference to *Valuing Bats in Ecological Impact Assessment* (Wray, *et al.*, 2010) and the *Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial and Freshwater* (CIEEM, 2016).

3.7 Limitations and Assumptions

The surveys were conducted during the peak bat season under suitable weather conditions. The results are therefore considered to represent a valid assessment of the roosting bat status within the site.

On the assumption that site conditions remain unchanged, the bat roost survey will remain valid for 1.5 years i.e. until December 2018, and should be updated if works have not commenced within this timeframe.

4 Results and Evaluation

The results of the background data search and field surveys are set out below, together with an evaluation of any bat roosts identified on site.

4.1 Data Search

No statutory sites designated for bats are located within 1km of the site. No bat Mitigation Licences granted by Natural England were identified within 1km of the site (MAGIC, 2017).

4.2 Preliminary Roost Assessment

The buildings on-site have been described below.

4.2.1 Church

The church was built in 1899. It was a one storey building c. 22m long x 10m wide x 16m tall, with a pitched roof, red brick walls, flat clay tiles and a clay tile ridge. There were wooden eaves and a brick parapet at the western gable. All brickwork, ridge, eaves, gable ends and lead flashing were intact and sealed. Most of the roof tiles were intact and sealed, although several tiles were missing on both the northern and southern elevations. A large slatted vent was noted on the southern elevation but this was found to be sealed behind the slats and heavily cob-webbed.

Internally, the church comprised one large space with several small rooms to the south (single-storey extensions). The main room had a suspended ceiling, but was seen to be vaulted and sealed with boarding above the main roof trusses. There was no ridge board, and no gaps / recesses for bats to use.

Photo 1: Church (south elevation).



Photo 2: Church interior.



4.2.2 Church Hall

The small church hall was a red brick building likely to have been built in the same era as the church. The hall had a pitched roof clad in flat clay tiles with clay ridge capping. There were wooden overhanging eaves and wooden fascia boards at the gable ends. All brickwork, ridge capping, eaves / fascias and gable end tiles were intact and securely sealed. All doors and windows were intact and sealed. Only two roof tiles were missing from the eastern roof slope, however these were very shallow and unsuitable for bats.

The interior of the small hall was one open space with a vaulted ceiling that was sealed with boarding above the main roof trusses. There was no ridge board, and no gaps / recesses for bats to use.

Photo 3: Church hall (west elevation).**Photo 4:** Out-building interior.

4.2.3 Cellar (Adjoins the Church Hall)

An underground cellar adjoined the north side of the church hall (**Photo 5**). Above ground, the cellar was single skin overlain with felt with a wooden door. The doorway led to an underground storage space. No daylight could be seen from within the cellar and no access suitable for bats was noted.

Photo 5: Cellar access which adjoins the Church Hall.

4.2.4 Overall Suitability for Roosting Bats

Bat roosting opportunities for each building are described in **Table 4.1**. The PRA concluded that the church held **moderate suitability** for roosting bats, and the out-building held **negligible** suitability (before the nocturnal surveys were undertaken).

Table 4.1: Potential access points and roosting opportunities for bats.

Building	Evidence of Bats	Potential Access Points and Roosting Opportunities	Bat Roosting Suitability
Church	None	Under gaps created by missing or loose roof tiles on both the north and south elevations.	Moderate
Church Hall	None	None	Negligible
Cellar	None	None	Negligible

4.3 Nocturnal Surveys

No bats were recorded entering or emerging from any of the buildings during the nocturnal surveys. Refer to **Appendix 2** for the raw data tables and map of the buildings.

4.4 General Bat Activity

Noctule *Nyctalus noctula* were recorded commuting off-site in the vicinity three times on each survey visit, and common pipistrelle was only recorded once.

4.5 Evaluation

An evaluation of roosting, foraging and commuting bats within the site is provided below.

4.5.1 Bat Roosts

No evidence of roosting bats was recorded during either of the surveys. The church and the out-building were therefore considered to be of **negligible** importance for roosting bats. No further surveys or mitigation are recommended.

4.5.2 Foraging and Commuting Bats

No discernible foraging or commuting bat activity was noted on site. Overall the site was considered of **negligible** importance for foraging and commuting bats.

5 Impact Assessment

Potential impacts of the proposed development in the absence of mitigation during construction and operation are discussed below.

5.1 Designated Sites

No statutory sites designated for bats were located within 2km of the application site and therefore **no impacts** are expected. No further mitigation is required.

5.2 Bat Roosts

No bat roosts were identified within any of the buildings, therefore no impacts to bat roosts are expected and no further surveys or mitigation are required.

5.3 Foraging and Commuting Bats

The site is of **negligible** importance for foraging and commuting bats, therefore no impacts to bats are expected and no further surveys or mitigation are required

6 Recommendations for Further Surveys and Mitigation

6.1 Further Surveys

No signs of roosting bats were noted and the buildings were considered to hold **negligible** importance for roosting bats (following the nocturnal surveys). Therefore, no further bat surveys or mitigation are required. This concurs with the results of a previous bat survey of the site in 2013, which found no evidence of roosting bats (Malford, 2013).

6.2 Avoidance and Mitigation

No bat roosts are to be impacted by the development and therefore no further mitigation is required. In the unlikely event that a bat is discovered, works should stop immediately and the advice of a bat-licenced ecologist should be sought.

7 References

- Bat Conservation Trust (2014). *Artificial Lighting and Wildlife. Interim guidance: Recommendations to help minimize the impact of artificial lighting*. The Bat Conservation Trust, London.
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- Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. JNCC, Peterborough.
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- Malford Environmental Consulting (2013). Reading Community Church, Oxford Road, Reading, Berkshire. Bat Roost Survey.
- Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.
- Wray, S., Wells, D., Long, E. and Mitchell-Jones, A. (2010). *Valuing Bats in Ecological Impact Assessment*. In Practice, 70: 23-25.

Appendix 1 Legislation and Policy

All 18 British bat species are listed in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of the *Conservation of Habitats and Species (Amendment) Regulations 2012* as European Protected Species. Furthermore, the *Countryside and Rights of Way Act 2000* (Schedule 12, Paragraph 5) has amended Section 9 of the 1981 Act. Bats are therefore, fully protected under Section 9 of the 1981 Act and under Regulation 41 of the *Conservation of Habitats and Species (Amendment) Regulations 2012*, which transposes the Habitats Directive into UK law.

All European bat species are listed as protected under Annex IV of Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, commonly referred to as the EC or EU Habitats Directive. In addition, four UK bat species are listed in Annex II of the EC Directive; the conservation of which requires the designation of Special Areas of Conservation under certain criteria. These four species are the greater horseshoe bat *Rhinolophus ferrumequinum*, the lesser horseshoe bat *Rhinolophus hipposideros*, Bechstein's bat *Myotis bechsteinii* and the barbastelle *Barbastella barbastellus*.

In England (and Wales) the EC Habitats Directive is transposed into national law by means of the *Conservation of Habitats and Species (Amendment) Regulations 2012*. The commonly used collective term for this above legislation is the 'Habitats Regulations' and all bats are European Protected Species (EPS).

All British bat species are also listed as protected under national laws via Schedule 5 of the *Wildlife and Countryside Act (WCA) 1981* (as amended). Furthermore, the *Countryside and Rights of Way (CROW) Act 2000* (Schedule 12, Section 5a) has amended Section 9 (subsection 4) of the WCA Act, 1981 thereby strengthening the level of protection further to include 'reckless' offences as well as 'intentional'.

Ultimately, the above EU and UK legislation makes it an offence to, or to attempt to do, any of the following:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb a bat, including in particular any disturbance which is likely to impair a bat's ability to survive; breed or reproduce; or rear or nurture their young;
- In the case of hibernating or migratory species, to impair their ability to hibernate or migrate;
- Affect significantly the local distribution or abundance of the species to which they belong;
- Damage, destroy or obstruct a breeding site or resting place of a bat whether intentionally or recklessly; and / or,
- Possess, control, transport, exchange or sell a bat or parts of a bat, alive or dead.

Furthermore, where development will result in damage to, or obstruct access to, any bat roost (whether occupied or not) or risks harming or significantly disturbing bats an EPS licence is required from Natural England, the regulatory body responsible for protected species in England, to allow the development to proceed.

The legal interpretation of "development" in the context of EPS is not restricted to works requiring planning permission from LPAs but includes permitted development and can encompass works that do not require any formal permission.

Bats are also afforded more general protection in England (and Wales) within the *Natural Environment and Rural Communities Act, 2006*. This imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "to have due regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity" [Section 40 (1)]. It notes that "conserving biodiversity includes restoring or enhancing a population or habitat" [Section 40 (3)]. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as roosts, flight corridors and foraging areas.

Species of Principal Importance in England (SPIE) – formerly UK Biodiversity Action Plan Priority (BAP) include the barbastelle, brown long-eared bat *Plecotus auritus*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula*, greater horseshoe, lesser horseshoe and Bechstein's bat.

Appendix 2 Bat Survey Results

Table 2.1: Bat emergence / re-entry survey results.

Time	Notes (HNS = heard but not seen) (SNH = seen but not heard) (RTR = return to roost)
Emergence Survey 1: 12th June 2017 (Church)	
21:43	Noctule commuting north to south off-site high above the city.
22:02	Noctule HNS.
22:06	Noctule HNS.
22:13	Noctule HNS.
22:21	Common pipistrelle – brief pass along the southern elevation.
Re-entry Survey 2: 30th June 2017 (Church)	
03:55	Noctule HNS.
04:25	Noctule HNS.
04:27	Noctule HNS.