Bat Building Assessment,

Christ Church,

Station Road,

Teddington,

TW11 9AA

28th October 2015

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Document information

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Notice to Interested Parties

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

CONTENTS

EXECUTIVE SUMMARY

0.1 This report outlines the findings of a Bat Building Assessment (BBA) of a church at Christ Church, Station Road, Teddington, TW11 9AA. The BBA was carried out by an Arbeco Ltd licensed bat ecologist on 27th October 2015.

0.2 The BBA assessed the church for potential to support bat roosts and nesting birds. This report will be used to inform the proposed re-development of the site which will include the conversion of the church into six apartments.

0.3 During the building inspection no evidence of bats was recorded. A low number of features with the potential to support roosting bats were recorded however no direct evidence of bats, such as droppings and/or urine staining was recorded around these features. Therefore, no further surveys are considered necessary at this stage. Nonetheless, as bats are highly mobile animals then it is recommended that, as a precaution, a further inspection for bats is carried out immediately prior to works commencing. This includes a pre-works inspection of any features with bat roost potential using an endoscope to inspect the gaps under lifted tiles, under exposed rafters or at the eaves of the building.

0.4 In the unlikely event that bats are recorded during the pre-works inspection or during works then works to that area must cease and the advice of a licenced bat ecologist, Arbeco Ltd, the Bat Conservation Trust or Natural England sought.

0.5 A fox den was recorded on site. Although foxes are not protected species, all wild mammals receive some protection by the Wild Mammals (Protection) Act 1996 which includes offences of crushing and asphyxiation of any wild mammal with intent to inflict unnecessary suffering. Removal of fox dens must therefore ensure that care is taken not to kill or injure any foxes.

0.6 The vegetation on site has the potential to support nesting birds. If any vegetation removal is necessary it is recommended that it is undertaken outside of the bird nesting season (October to February). If this is not possible then it is recommended that a nesting bird check is undertaken 24-48 hours prior to works commencing and any active nests left *in situ* until the chicks have fledged.

1 INTRODUCTION

1.1 Arbeco Ltd were commissioned by Cliff Hamilton to undertake an ecological assessment of bat species at Christ Church, Station Road, Teddington, TW11 9AA to help inform the proposed re-development of the church on site.

1.2 The survey involved carrying out a detailed bat building assessment to assess the likelihood and potential of the building on site supporting bat species. The assessment comprised of a thorough internal and external inspection of the buildings for any evidence of bats. The survey also involved assessing the building's potential to support breeding birds.

1.3 This report details the results of the initial bat building assessment.

Legislation

1.4 Bats and their places of shelter or protection receive European protection under the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981. This legislation, and the protection bats are afforded under it, is further explained in Appendix 1.

Site Description

1.5 The site comprises a church, shed, portacabin, and associated landscaping. The site is located within the town of Teddington in the London Borough of Richmond (Ordnance Survey Grid Reference for the centre of the site: TQ 16007 71019). The site is approximately 0.01 hectares in area. The location of the site is shown in Figure 1.1, the extent of the site boundary is shown in Figure 1.2. The buildings on site which were surveyed for bat potential are shown in Figure 1.3.

Development Proposals

1.6 The development proposals comprise the conversion of the church into six apartments.

2 METHODS

Bat Building Inspection

2.1 The methods used in the bat building inspection were based on those recommended in English Nature's Bat Mitigation Guidelines (Mitchell-Jones 2004), the Joint Nature Conservation Committee's Bat Worker's Manual (Mitchell-Jones and McLeish 2004) and the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Hundt, 2012).

2.2 The building's suitability for bat roosting was assessed by examining structural features. Structural features that may influence the suitability of a building to support roosting bats include the presence of a roof void, the presence of access points into the building (including gaps beneath barge boards, soffits and fascias, gaps under lead flashing, gaps within masonry and under loose tiles, gaps between mortise and tenon joints), the complexity and size of any roof void and daytime light levels in the roof void.

2.3 The building's suitability for roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may influence roost potential include whether the structure is in a semi-rural or parkland location, its proximity to a significant linear habitat features such as a watercourse, mature hedgerow, wooded lane or an area of woodland.

2.4 Taking account of these architectural and habitat features, the building was then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Hundt, 2012) and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat survey later in the year, or alternatively to obtain sufficient information that would dismiss the need for further assessment.

2.5 A detailed bat building inspection was undertaken on 27th October 2015 by qualified ecologist Rosie McLaughlin (bat licence number 2015-15036-CLS-CLS). An external search around the perimeter of the church was conducted and any possible access points i.e. gaps and crevices were noted and surveyed with the high powered torch, ladder and endoscope as required.

2.6 A systematic internal inspection of the church was conducted using a high-powered torch to illuminate all areas thought to be suitable for roosting bats. All surfaces were also surveyed for signs of bat presence.

2.7 Features of potential value to bats were surveyed not only for the presence of bats but also for signs that could indicate use by bats, such as:

- Bat droppings;
- Staining of access points used by bats to enter the structure; and
- Feeding remains such as moth and butterfly (Lepidoptera) wings.

Survey Constraints

2.1 Bats are difficult to locate in large structures, with so many potential roosting areas, particularly in inaccessible areas such as large buildings, finding the exact roosting site can be difficult, especially male/single bat roosting sites.

2.2 Bats can have seasonal use of buildings and being so mobile may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason bats may potentially be present but remain undetected, particularly during day time assessment surveys.

3 RESULTS

Building Description

3.1 Christ Church is a stone built church of traditional design with a pitched roof housing the nave. The building comprises several sections shown in Figure 1.3. A sloped roof on the northern and southern elevations houses the north and south side aisles and a hipped roof section on the north-eastern corner houses the organ. The main entrance to the church is within a hipped roof section with wooden tower on the north-western corner of the building. A pitched roof porch is present on the southern elevation. All roof pitches are covered with slate roof tiles. The alter, to the east of the building, has a pitched roof. A single storey, pitched roof vestry entrance is present on the north-eastern elevation. The northern, eastern, southern and western elevations of the building are shown in Photographs 1-4 respectively in Appendix 2.

3.2 A brick built boiler house is present below ground on the northern elevation of the building with a flat metal roof. The boiler house is shown in Photograph 5 in Appendix 2.

3.3 A small shed is located to the south of the church.

External Results

3.4 A low number of features with the potential to support roosting bats were recorded on the building. These include a single gap under a roof tile on the northern pitch of the south porch entrance (Photograph 6), minor gaps in the brickwork under exposed timbers on the southern elevation (Photograph 7) and a single gap at the eaves of the section that houses the organ (Photograph 8).

3.5 The boiler house and shed have no features with the potential to support roosting bats.

3.6 A fox den was recorded to the east of the church, south of the vestry (Photograph 9) and fox droppings were recorded on site.

3.7 The building had negligible potential to support nesting birds due to the presence of chicken wire. However, the scrub around the building, most notably on the southern elevation, had the potential to support nesting birds.

Internal Results

3.8 The nave, aisles, organ house, alter and south porch entrance are all open to the apex with exposed timbers (Photograph 10). No bats, bat droppings or any other evidence of bats were recorded within the building. The timbers were tight and the roof was plastered straight onto the rafters.

3.9 The vestry entrance and area below the main tower had suspended ceilings that were inaccessible. No external bat access features were recorded externally into these areas.

3.10 The boiler house and shed have no features with the potential to support roosting bats.

Surrounding Habitat

3.11 The church is located in an urban area surrounded by residential and commercial properties. A train line is present within 100m west of the church which could provide potential foraging habitat or commuting habitat to Bushy Park to the south of Teddington or the River Thames to the east.

4 EVALUATION

4.1 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981 (as amended).

4.2 No bats, bat droppings or any other evidence of bats was recorded during the building inspection of Christ Church.

4.3 Due to the low number of suitable features with bat roost potential, the church was considered to have low potential to support bat roosts. No evidence of bats was recorded around these features therefore it is unlikely that bats are roosting within the building or have done in the recent past.

4.4 Due to the presence of a fox den and fox droppings around the church the site is currently used by foxes or has been in the recent past.

4.5 No nesting birds were recorded during the survey however, the vegetation on site has the potential to support nesting birds.

5 CONCLUSIONS

5.1 The site is considered to have low ecological value within a local context. The biodiversity value of the site is largely attributed to the following factors:

- The lack of evidence of bats within the church;
- The low number of features with the potential to support roosting bats;
- The presence of a fox den;
- The potential of the vegetation on site to support nesting birds.

5.2 The proposed development will result in the conversion of the church into six apartments. It is considered that no further surveys are necessary for bats due to the low potential of the building to support roosting bats. No direct evidence of bats was recorded and the low number of features identified externally did not have any evidence of bats (such as droppings and/or urine staining). However, as a precautionary approach it is recommended that a number of measures are implemented, as set out in section six of this report, which will ensure that any potential impacts to bats are adequately addressed during the planning stage, construction and post-development stage.

6 RECOMMENDATIONS

6.1 A low number of features with the potential to support roosting bats were recorded during the survey however no direct evidence of bats (such as droppings and/urine staining) was recorded around these features. No further surveys are considered necessary at this stage. Nonetheless, as bats are highly mobile animals then it is recommended that, as a precaution, a further inspection for bats is carried out immediately prior to works commencing. This includes a pre-works inspection of any features with bat roost potential using an endoscope to inspect the gaps under lifted tiles, under exposed rafters or at the eaves of the building.

6.2 In the unlikely event that bats are recorded during the pre-works inspection or during works then works to that area must cease and the advice of a licenced bat ecologist, Arbeco Ltd, the Bat Conservation Trust or Natural England sought.

6.3 A fox den was recorded on site. Although foxes are not protected species, all wild mammals receive some protection by the Wild Mammals (Protection) Act 1996 and it includes offences of crushing and asphyxiation of any wild mammal with intent to inflict unnecessary suffering. Removal of fox dens must therefore ensure that care is taken not to kill or injure any foxes.

6.4 The vegetation on site has the potential to support nesting birds. If any vegetation removal takes place it is recommended that it is undertaken outside of the bird nesting season (October to February). If this is not possible then it is recommended that a nesting bird check is undertaken 24-48 hours prior to works commencing and any active nests left *in situ* until the chicks have fledged.

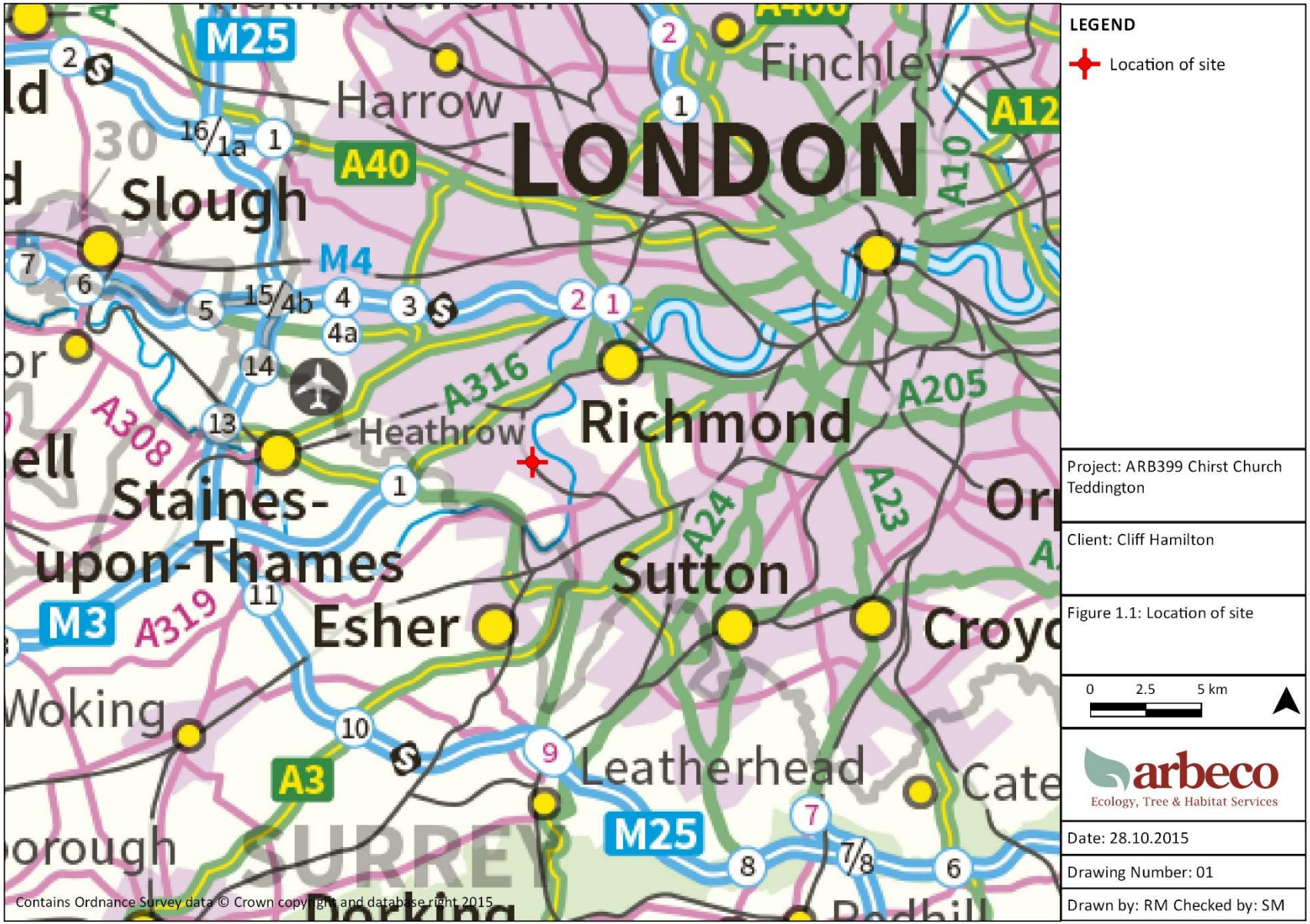
REFERENCES

Hundt, L (2012) *Bat Surveys: Good Practice Guidelines*, 2nd Edition, Bat Conservation Trust

Mitchell-Jones A.J (2004) *Bat Mitigation Guidelines*. English Nature.

Mitchell-Jones A.J. and McLeish A.P. (2004) *The Bat Workers Manual* 3rd Edition. Joint Nature Conservation Committee.

FIGURES


M25
Harrow
LONDON
Finchley
A12
A10
A40
Slough
M4
A316
A205
Heathrow
Richmond
A308
Staines-upon-Thames
A24
A23
Sutton
M3
A319
Esher
Woking
A3
Leatherhead
M25
SURREY
Contains Ordnance Survey data © Crown copyright and database right 2015
LEGEND
Location of site
Project: ARB399 Chirst Church Teddington
Client: Cliff Hamilton
Figure 1.1: Location of site
0 2.5 5 km
arbeco
Ecology, Tree & Habitat Services
Date: 28.10.2015
Drawing Number: 01
Drawn by: RM Checked by: SM


Liby
PO
PO
PW
PW
A309
A313
A309
A309
HIGH STREE
ARAGE ROAD
WADE'S L
T'S LANE
CH LANE
CEDAR ROAD
SPRINGFIE
FIELD
NTERPRISE WAY
BRIDGEMAN ROAD
GOMER
LANE
STATION ROAD
GROVE
GOMER GDNS
KMORE'S
LE LANE
Pol Sta
Sta
ADELAIDE RD
Contains Ordnance Survey data © Crown copyright and database right 2015
LEGEND
Extent of site boundary
Project: ARB399 Chirst Church Teddington
Client: Cliff Hamilton
Figure 1.2: Extent of site boundary
0 25 50 metres
arbeco
Ecology, Tree & Habitat Services
Date: 28.10.2015
Drawing Number: 01
Drawn by: RM Checked by: SM


Boiler house
Vestry
Side aisle
West entrance and tower
Alter
Christ Church
Organ
Side aisle
South porch entrance
LEGEND
Extent of site boundary
Building subject to survey
Project: ARB399 Chirst Church Teddington
Client: Cliff Hamilton
Figure 1.3: Building subject to survey
0
3
6 metres
arbeco
Ecology, Tree & Habitat Services
Date: 28.10.2015
Drawing Number: 01
Drawn by: RM Checked by: SM

APPENDIX 1: Legislation relating to bats

Bats and the places they use for shelter or protection i.e. roosts, receive European protection under The Conservation of Habitats and Species Regulations 2010, as amended (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2010 (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2010 (as amended) for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* (rather than deliberately) kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

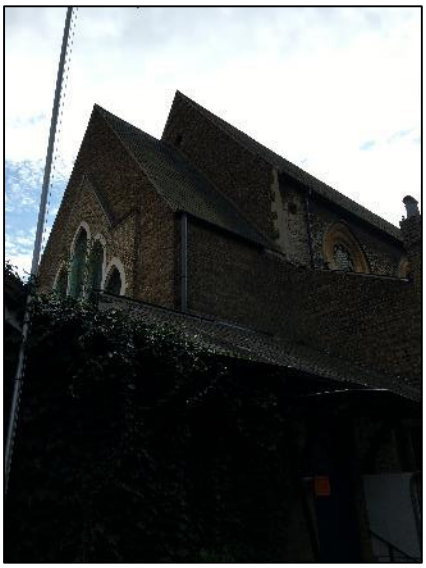
As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

Several bat species are considered to be Species of Principal Importance for Nature Conservation in
England.

The reader should refer to the original legislation for the definitive interpretation.

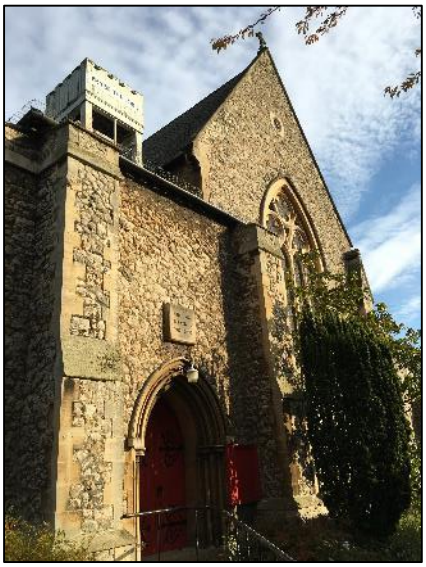
APPENDIX 2: Site photographs

Photograph 1: Northern elevation of church



Photograph 2: Eastern elevation of church

Photograph 3: Southern elevation of church



Photograph 4: Western elevation of church

Photograph 5: Boiler house

Photograph 6: Gap in roof tiles on eastern elevation of south porch entrance

Photograph 7: Gap under exposed timbers on southern elevation

Photograph 8: Gap at eaves on western elevation of section that houses the organ

Photograph 9: Fox den

Photograph 10: Internal roof structure