Report issued:
17 September 2014

Bat Survey Report

Ringmer Primary School
Harrisons Lane
Ringmer
East Sussex
BN8 5LL

CONTENTS

Summary

Three emergence surveys (including two dawn re-emergence surveys) were undertaken in September 2014 at Ringmer Primary School, Harrisons Lane, Ringmer, East Sussex BN8 5LL.

The emergence surveys aimed to establish the presence/likely absence of bat roosts within two buildings on the proposed development site.

All surveys were undertaken in accordance with the *Bat Surveys: Good Practice Guidelines* (2012), *Bat Workers Manual* (2004) and the *Bat Mitigation Guidelines*, (2004).

No bats were recorded emerging or re-entering the two buildings at Ringmer Primary School.

We have recommended that the part-demolition of the nursery building should be undertaken when bats are not active, and that the sensitive periods for bats are avoided. For clarity, bats are most sensitive between May and August, and December and January inclusive.

However, if bats are discovered during demolition works of the nursery building, works should stop immediately and the ecologist should be consulted for advice.

In order to stay in line with best practice, we would recommend that if there is a gap of 2 years between these surveys and the work commencing, that a building inspection of the roof void of the Juniors building is undertaken by a licensed bat ecologist in order to deal with any last minute discoveries of bats.

We have made recommendations to reduce the impacts of external lighting on foraging and roosting bats.

A European Protected Species licence for bats (EPS), will not be required from Natural England to proceed with the development.

1. Introduction

1.1 Background

Bat emergence surveys were undertaken at Ringmer Primary School, Harrisons Lane, Ringmer, East Sussex BN8 5LL to establish if the proposed development would have any negative impact upon local bat populations, or their roosts.

The proposed development site is located in a semi-urban setting surrounded by domestic gardens, arable farmland, hedgerows and small blocks of isolated woodland. The proposed development site is located at Ordnance survey grid ref: TQ4536512384.

The proposed development will involve the part demolition of one existing building (nursery/infants building).

It is proposed to extend six of the existing classrooms of the Juniors building, and at a later stage to create a corridor linking the two buildings together. There is likely to be minimal modification to the existing roof void with the exception of one corner on the west side.

Other work on the development site includes a new building in the existing hard landscaping area, in the SE corner of the site.

1.2 Objectives of the surveys

The aims of the survey were to:

- Establish the presence or absence of bats within the proposed development area.

- Provide a general overview of the ecological resources of the site.

2. Legal implications

2.1 Bats and the Law

In England, Scotland and Wales all bat species are fully protected under the Wildlife and Countryside Act 1981, through inclusion in Schedule 5. All bats are also included in Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (or Northern Ireland, 1995), which defines European protected species of animals.

It is therefore illegal to:

- intentionally or deliberately kill, injure or capture (take) bats
- Deliberately disturb bats (whether in a roost or not)
- Damage, destroy or obstruct access to bat roosts
- Possess or transport a bat or any part of a bat, unless acquired legally
- Sell, barter or exchange bats, or parts of bats.

A bat roost is any structure or place which any wild animal uses for shelter or protection, because bats tend to reuse the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time.

3. Methodology

3.1 Survey methods

The survey was undertaken in line with the guidelines: *Bat Workers Manual* (2004), *Bat Mitigation Guidelines* (2004) and the *Bat Surveys: Good Practice Guidelines* (2012).

Three emergence surveys, including two re-entry dawn surveys, were undertaken by two suitably experienced and qualified ecologists, one of one of whom holds a Natural England Bat Survey Licence (**Licence number 2014/CLS/0264**).

Dusk emergence surveys started approximately 15 minutes prior to sunset for 2 hours. The dawn re-emergence survey started approximately 2 hours – 1.5 hours prior to sunrise.

Batbox Duet bat detectors were used. An "ANABAT" echolocation call detector/analyser was placed at the side of one of the buildings and left *in situ* throughout the survey to provide supplemental data between the manual surveys.

3.2 Desktop study

A data trawl was submitted to Sussex Biodiversity Records Centre for protected species, including bats. This was submitted by the consultant who undertook the initial Phase 1 survey (Greenwood Environmental).

4. Results

4.1 Desktop report

The data trawl showed that there were a number of bat species within a 1 - 2 km radius of the proposed development.

There were no specific records for the proposed development site itself. However, the data trawl showed that there were common pipistrelle *(Pipistrellus pipistrellus)* roosts within 300 – 400 m, and a brown long-eared bat roost *(Plecotus auritus)* within 1 km from the development site.

4.2 Emergence surveys

Date:	Tuesday 2 September 2014
Sunset:	19:44
Start time:	19:30
Weather:	Cloudy, no rain, light wind
Temperature:	NR

20:04	Common pipistrelle	Flew south along side building
20:06	Common pipistrelle	Flew south along side building
20:10	Pipistrelle sp.	Bat pass
20:13	Common pipistrelle	Bat pass
20:14	Common pipistrelle	Foraging around trees at front
20:15	Common pipistrelle	Heard not seen
20:19	Pipistrelle sp.	Heard not seen
20:22	Brown long-eared bat	Briefly at front
20:23	Pipistrelle sp.	Bat pass
20:30	Pipistrelle sp.	Heard not seen
20:29, 20:31	Serotine	Heard not seen
20:35	Pipistrelle sp.	Heard not seen
20:36	Pipistrelle sp.	Heard not seen
20:45	Soprano pipistrelle	Heard not seen
20:46	Pipistrelle sp.x 2	Bat pass

Date: Friday 5 September 2014
Sunrise: 06:21
Start time: 05:00
Weather: Cloudy, no rain, no wind
Temperature: 19.5^{o}C

05:20	Common pipistrelle	Bat pass
05:30	Common pipistrelle	Bat pass
05:31	Common pipistrelle	Bat pass

Date: Friday 12 September 2014
Sunrise: 06:30
Start time: 05:00
Weather: Clear sky, no rain, no wind
Temperature: 13^{o}C

05:15	Brown long-eared bat	Bat pass
05:30	Common pipistrelle	Bat pass

5. Assessment

5.1 Presence/likely absence of bat roosts

No bats were recorded emerging or re-entering the two buildings at Ringmer Primary School.

The results from our emergence surveys suggest that there is a bat roost nearby (brown long-eared bat, *Plecotus auritus*). This has been based on the fact that it was recorded briefly on the development site, at the usual emergence time for this species. It is our opinion that it is likely to be roosting in a nearby building, off the development site.

It should be remembered that bats will use more than one roost and will move between roosts, especially tree-dwelling species. In addition, bats will use roosts at different times of year (eg maternity roosts, hibernation roosts, transition roosts and mating roosts). This should be taken into account when assessing a site for potential bat roosts.

The nursery building was considered to have limited roosting opportunities for bats based on the lack of a roof void. However, there was cladding on the outside of the building which could be used by crevice-dwelling species such as pipistrelles.

On the other hand, the Juniors building was considered to have slightly more roosting opportunities such as the presence of a large roof void, roof tiles, lead flashing and soffit boards. However, on close inspection there appeared to be few gaps, and the soffit boards appeared to be well sealed.

Overall, the development site was considered to have a moderate to high value for roosting and foraging bats.

5.2 Survey constraints

The detection of some species on a bat detector can be a survey constraint. An example is brown long-eared bat (*Plecotus auritus*) which are hard to hear on the bat detectors and hard to see as they emerge when it is dark.

The emergence surveys were undertaken just outside the optimal window for detecting maternity roosts (May to August inclusive).

5.3 Bats in the wider landscape

The results from our emergence surveys show that the hedgerows on the boundary of the proposed development are being used by foraging bats. In addition, ordnance survey maps and aerial photographs show that the habitats in the wider landscape are well-connected.

5.4 Impacts of the proposed development

It is considered that in the absence of appropriate mitigation, the part demolition of the nursery building is unlikely to result in the loss or damage to a bat roost, obstruct access to to any structure or place used for shelter or protection, disturb, kill or injure individual bats.

It is considered that any external lighting could have a negative impact on foraging bats or local bat populations. Please refer to Section 6.2 for further information.

6. Recommendations

6.1 Reasonable measures/best practice

These recommendations are to meet compliance with current legislation, planning policy and best practice as recognised by the various statutory authorities and facilitate the implantation of the project.

No bats were recorded emerging or re-entering the two buildings at Ringmer Primary School.

A European Protected Species licence for bats (EPS), will not be required from Natural England to proceed with the development.

Ideally, the work should be undertaken when the bats are not active. Work should be timed to avoid the sensitive periods for bats, namely the breeding and hibernation seasons: bats are most sensitive between May and August, and December and January inclusive.

It is our opinion that no pure mitigation measures would be required. However, if bats are discovered during demolition works of the nursery building, works should stop immediately and the ecologist should be consulted for advice.

In order to stay in line with best practice, we would recommend that if there is a gap of 2 years between these surveys and the work commencing, that a building inspection of the roof void of the Juniors building is undertaken. This should be undertaken by a licensed bat ecologist in order to deal with any last minute discoveries of bats.

New buildings could include hanging tiles and/or weather boarding, with bat access on their exterior walls to provide crevice spaces that could be used by pipistrelle bats.

6.2 Restrictions in the use of external lighting

External lighting would have a negative impact upon foraging and roosting bats which could be potentially roosting within the surrounding structures. The use of lights near a known bat roost, or an area known to be used by bats is unlawful.

We recommend that no additional external lighting is added to the site in the future. In addition, any lighting **should not** be directed towards the hedgerows, bat boxes or possible roost exits or facing in an upward direction.

Please refer to the publication, *Bats and Lighting in the UK* for more information.

7. References

Bat Workers Manual, JNCC, 3rd edition 2004.

Bat Conservation Trust, British Bats series 1999.

Distribution Atlas of Bats in Britain and Ireland, 1980-99. P. Richardson, The Bat Conservation Trust. 2000.

English Nature, Bat Mitigation Guidelines: Version January 2004. English Nature, Peterborough.

Bat Surveys Good Practice Guidelines, Bat Conservation Trust 2012 (2nd edition).

Bats and Lighting in the UK: Bats and the Built Environment Series, Bat Conservation Trust.

Habitat Management for Bats, a guide for land managers, landowners and their advisors, JNCC 2001.

Document Production and Approval

Status	Issue	Surveyor	Date
Draft	1	HETTY WAKEFORD	10.09.14
PROOF	2	SEAN MCMINN	15.09.14
FINAL	3	HETTY WAKEFORD	17.09.14

Appendix 1: Desktop study results

GRID REF	Species	Latin name	Year	Location
TQ 455127	Pipistrelle sp.	*Pipistrellus*	2013	Ringmer
TQ 455127	Common pipistrelle	*Pipistrellus pipistrellus*	2013	Flat 1, The Granary, Lewes Road, Ringmer (Maternity Roost)
TQ 453127	Common pipistrelle	*Pipistrellus pipistrellus*	2013	Ringmer
TQ 445125	Common pipistrelle	*Pipistrellus pipistrellus*	2009	4 Delves Close, Ringmer
TQ 467127	Brown long-eared bat	*Plecotus auritus*	2010	Nightingales, Laughton Road, Ringmer
TQ 443118	Brown long-eared bat	*Plecotus auritus*	2006	The Old Malthouse, Lewes Road, Ringmer
TQ 461124	Brown long-eared bat	*Plecotus auritus*	2006	17 Shepherds Way, Ringmer
TQ 455127	Noctule	*Nyctalus noctula*	2013	Ringmer
TQ 445125	Serotine	*Eptesicus serotinus*	2009	4 Delves Close, Ringmer
TQ 445125	Unidentified bat sp.	*Myotis*	2009	4 Delves Close, Ringmer

Source of information: Sussex Biodiversity Records Centre (ESD/14/461) 18 August 2014

Appendix 2: Specific weather conditions on emergence surveys

Session No	Date	Rain	Wind	Cloud cover	Temperature	Species recorded
Dusk	2 Sept	None	Light	Cloudy	NR	Common pipistrelle Serotine Brown long-eared bat
Dawn	5 Sept	None	None	Cloudy	19.5°C	Common pipistrelle
Dawn	12 Sept	None	None	Clear	13°C	Brown long-eared bat Common pipistrelle

Appendix 3: Photographs of the site

	**Photograph 1** View looking west towards the nursery building, This section of the building will be demolished, and re-built as a new structure (as shown in the site plan, Part 3 – see Appendix 4)
	**Photograph 2** View looking east towards the Existing Hall, Admin, Kitchen building, This section of the building will be retained (as shown in the site plan, Part 3 – see Appendix 4)
	**Photograph 3** View looking north-east showing the nursery building, This section of the building will be part demolished (as shown in the site plan, Part 3 – see Appendix 4)

Photograph 4

View looking north showing the Juniors building. It is intended to extend six of the classrooms of this building (approx. 1.5 m each).

It is unlikely that the existing roof void would be modified. However, there would be some disturbance and modifications to existing walls as well as noise and vibrations during construction work. It was unclear whether the walls were cavity-filled.

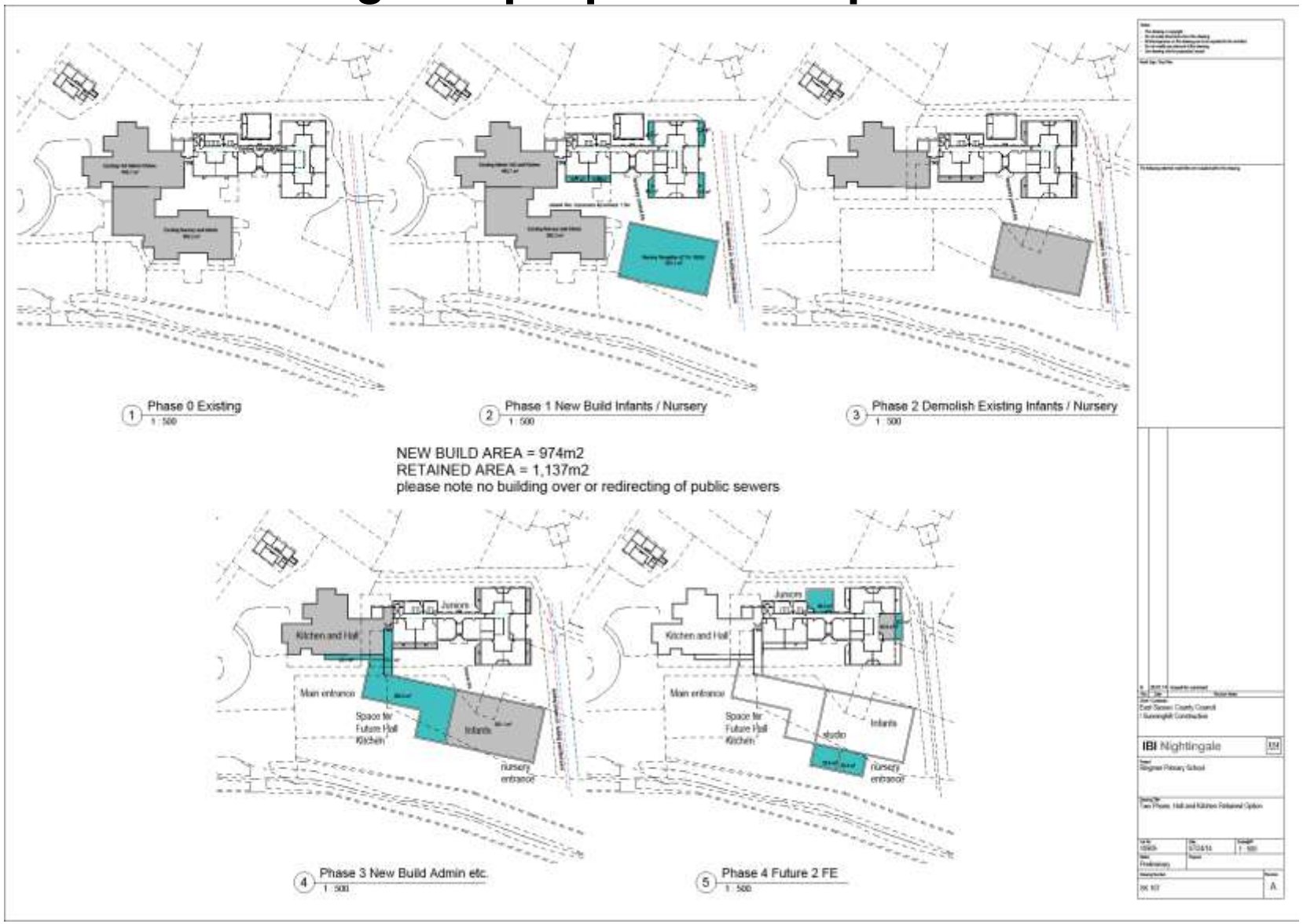
Photograph 5

View looking north-east showing the Juniors building, It is proposed to extend one classroom on this side of the building by 1.5 m.

Photograph 6

View looking north-west showing the Juniors building, It is proposed to build a temporary link from this building to the new nursery reception building. In addition, it is proposed to join two buildings together on the western corner of this building.

Appendix 4: Existing and proposed site plan



Location of surveyors during emergence surveys

Please note that both surveyors were able to walk around and were not fixed to their survey posts, so that all parts of the two buildings could be adequately surveyed. In addition, an ANABAT recording device was used on each survey, including the dawn surveys.