



**Bat Emergence Survey
Land Off Saville Lane
Thurlstone**

Report reference: BE-R-1255-02
July 2012

Report Title:	Bat Emergence Survey Land off Saville Road Thurlstone
Report Reference:	BE-R-1255-02
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Summary Statement

A bat roost has been found within one of the buildings on site and a Natural England license will be required prior to demolition.

A rationale for securing this license and planning permission is presented.



Introduction

Subsequent to the recommendations made in Brooks Ecological's Bat Roost Potential Survey (BE-R-1255-01) detailed bat survey was commissioned for buildings owned by James Durrans and Sons Ltd. on Saville Lane, Thurlstone, South Yorkshire (SE 132 167).

Information relating to local and legal status is provided in report BE-R-1255-01 and is not repeated here. However the two reports should be read in conjunction with one another for full context.

Method

Brooks Ecological specialise in bat surveys ranging from individual buildings through to complex sites requiring numerous visits with large teams. In terms of the survey effort, number of personnel required and number of visits required to be able to properly evaluate the building(s) use by bats we refer to the Bat Conservation Trust, Survey Good Practice Guidelines (2012). However these guidelines are not prescriptive and we approach each site individually as required using our professional judgement and significant experience base.

In this case, 3 visits with a team of 2 surveyors, was deemed necessary to fully evaluate the potential use of the site for roosting. The surveys were carried out on the 29th May, 6th June and 3rd July 2012 with surveyors positioned around the building to cover all aspects where bats could potentially emerge, and to establish activity levels around the site.

The surveyors, using heterodyne detectors, were in place at least half an hour before dusk and left once all species of bat would be expected to have left a roost and patterns of activity within the site had been appraised. Conditions and dates are summarised in table 1 below:

Table 1: Survey summary

Date of Survey	Temperature	Weather	Invertebrate activity
29.05.12	18°C	Fine and partially cloudy, light wind	Moderate
06.06.12	17°C	Fine, partial cloud cover, very light breeze	Good
03.07.12	16°C	Heavy cloud, intermittent light drizzle	Moderate

Emergence survey work was directed by Jane Liddle BSc (Hons). Jane has over 5 years experience of carrying out bat surveys in a professional capacity, holds an English Nature scientific licence for all counties of England and is an active member of the West Yorkshire Bat Group and a Natural England Roost Warden.

Results

Survey - 29th May 2012 sunset 21:22

The first bat seen was at 21:32 when a common pipistrelle flew from the direction of buildings at the northern edge of the site: surveyors suspected that it may have emerged from beneath eaves at the southern elevation. At 21:43 another bat flew across the site from the west commuting towards trees beyond the south east corner. At 21:46, 2 bats were then seen foraging within the small garden at the eastern corner of the site, where they remained for approximately 10 minutes.

Additional bat activity was limited to occasional commuting, with a bat crossing the site from north east to west at 21:50 and another travelling east to west over buildings on site at 22:08. The remainder of activity was limited to bats heard occasionally foraging within trees to the east of the site and along the river to the south.



Figure 1

View of building where single bat emerged.

All bats heard were common pipistrelles.

Survey – 6th June 2012 Sunset 21:33

At 21:23, a single bat emerged from the gap behind the chimney on the three storey building at the eastern end of the site. This was followed a few minutes later by an additional bats from the same feature with a total of 19 bats

emerging: the last bat to emerge was at 22:25. All of these flew away from the site southwards towards the river. No bats were seen to emerge from beneath the eaves of the building to the north of the site.

Further activity on the site was limited to 3 bats foraging within the small garden at the eastern boundary which were seen to enter the site from the east, while additional bats were heard but not seen foraging within trees to the south. Two additional bats were seen commuting across the site from west to east at 21:39 and 21:41.



Figure 2

View of 3 storey building with chimney showing where bats were seen to emerge.

All bats recorded were common pipistrelles.

Survey – 3rd July 2012 Sunset 21:39

The first bat seen was at 21:20, which emerged from beneath the eaves of the stone building on the north of the site which was identified as a possible roost during the first survey and is shown in Figure1 above. This was followed at 21:26 and 21:46 by two other bats from the same location. At 21:28, a bat re-entered this roost and was seen to emerge again at 22:07. This was repeated at 21:56 with another bat re-entering the roost to emerge again at 22:07. At 22: 47 two more bats emerged from the same location, making the likely total of bats observed using the eaves during this survey to be four.

At 22:48, 2 bats which may have just emerged from the eaves, were seen to circle close to the chimney with one possibly entering the gap behind the chimney. This pattern was repeated at 23:01 and suggests a definite link between the two roost sites.

Other activity on site was very similar to previous surveys with foraging in the small garden at the eastern boundary along with occasional commuting across the site, largely from west to east.

Figure 3 indicative locations of roosts.



Evaluation

The site is assessed as supporting a small breeding colony of common pipistrelle bats. Up to 19 bats were observed roosting behind the chimney of the three storey building while smaller numbers were found roosting within eaves of buildings at the north of the site (see figure 3). It would appear that this colony of bats move between these roosts sites. It is important to note that all evidence suggests that the two roosts identified are alternative sites used by the same breeding colony and are unlikely be fully occupied at the same time.

Recommendations

Plans for the site involve the demolition of the three storey building with the loss of one of these roost sites, therefore a license from Natural England will be required prior to works commencing. New buildings will be erected on the site with works commencing in autumn 2012.



The section of stone building which contains the second roost site will not be affected by the proposals.

To gain a license from Natural England, a method must be put forward which will protect the conservation status of this species of common pipistrelle bats locally.

This method is provided to Natural England in the form of an official application containing a detailed method statement. As planning permission must be granted prior to this application, and the planning authority must give full consideration to the issue of European Protected Species (EPS) in making any planning decision, the proposed method is outlined below using the format headings currently required by Natural England. It is likely that further detail will be added prior to submission.

A Mitigation and compensation

A.1 Summary of mitigation strategy

- To retain roosting opportunities in the interim, prior to any works bat boxes will be erected in the wider site. These will be mounted on trees as close as possible to the currently used roost sites.
- To prevent killing, injury and disturbance to bats, works to demolish the building will only be carried out in winter (period October to March inclusive) and following an inspection of the gaps behind the chimney by a suitable qualified ecologist. If bats are roosting works will be suspended until absence is demonstrated by further survey.
- To retain roosting opportunities in the long term, buildings will incorporate integrated roosts within the new constructions.

B Works to be undertaken by the ecologist or suitably experienced person

- The ecologist will carry out proving survey of gaps behind the chimney prior to demolition to ensure the absence of bats.
- In the unlikely event of discovery of small numbers of hibernating bats, provision will be made for a small number of bats to be removed to a hibernation box erected on site. The discovery of larger numbers of hibernating bats will result in a halt to works.
- The ecologist will specify and approve the erection of bat boxes in suitable locations in the wider site prior to demolition.
- The ecologist will specify and approve the incorporation of integrated roosts in suitable locations in the new buildings.



- The ecologist will provide suitable briefing / information to site supervisors - which will enable them to pass on briefing information relating to bats to site staff.

B.1 Capture and exclusion

No capture or exclusion is required. Works in these areas will only begin once bats have been shown to be absent.

B.2 Works to be undertaken by the developer/landowner

- The developer will ensure that suitable contractors can be appointed and that funds are in place to allow completion of the project (to the point where bats will be able to use the roosting features in new buildings) within the licensed period. This will be stipulated in any contracts as the method statement submitted with the license application will be legally binding.
- The developer will ensure that site staff are briefed as to the presence of bat roosts and of the potential to find bats within the building.
- The developer will provide a chain of command which ensures that works to roost areas will not take place until the absence of bats has been demonstrated. The chain of command will ensure that, should bats or their roosts be found during operations, work will stop immediately and ecological advice be sought.
- The developer will commission suitable levels of supervision by an ecologist allowing the recreation of suitable conditions within new roosts.
- The developer will employ an architect to produce a specification (made binding by the license agreement) which will show the suitable replacement of roosting in new buildings.
- The developer will take steps to ensure that lighting of the new roosts areas of the property (e.g. by security lights) will not occur.

C Bats roosts

C.1 In situ retention of roosts

Roosts will not be retained in-situ.

C.2 Modification of existing roosts



Roosts will not be modified.

C.3 New roost creation

Roosting boxes suitable for maternity roosting, will be placed in mature trees close to the building to be demolished. Although their primary purpose is to provide interim roosting during demolition and construction, these boxes will be positioned and mounted in such a way that they can remain in the trees in the longer term.

Roosting will be replaced on a more permanent basis by the provision of roosts to be designed into the new building, as close to the location of existing roosts as possible. These will mimic the current roosts in terms of allowing bats to access roosting through crevices in the buildings exterior. These details will replicate current roosting in aspect and height and will be designed to be self cleaning and maintenance free.

Each roost will be created by incorporating (Envisage Wildcare 0608 or similar) maintenance free bat bricks into the upper walls of the buildings. This will be specified in detailed designs for the buildings to be provided with the license application.

C.4 Scaled maps and plans

See Architects submitted plans.

D Post development site safeguard

D.1 Habitat / site management and maintenance

Not required at this site

D.2 Population monitoring, roost usage etc

Roosts to be monitored for a period of two years after completion.

D.3 Mechanism for ensuring delivery of post development works

The current application is subject to planning permission, the planning process could be used to ensure delivery by reference to this method statement.



References

Bat Conservation Trust (2012) Bat Surveys – Good Practice Guidelines

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

JNCC (2004) The Bat Workers Manual. 3rd Edition.