REPORT ON A BAT AND BARN OWL SURVEY AT 63 – 65 THOMAS STREET, MANCHESTER

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CONTENTS

1.0 INTRODUCTION

2.0 LEGAL PROTECTION FOR BATS

3.0 LEGAL PROTECTION FOR OWLS

4.0 BATS IN BUILDINGS

5.0 BARN OWL HABITAT

6.0 OWLS IN BUILDINGS

7.0 METHODOLOGY

8.0 TIMING OF THE SURVEY

9.0 LIMITATIONS OF THE SURVEY

10.0 RESULTS

11.0 CONCLUSIONS

12.0 IMPLICATIONS AND RECOMMENDATIONS

1.0 INTRODUCTION

1.1 A bat and barn owl survey was requested at former retail and commercial premises at 63-65 Thomas Street in the northern quarter of Manchester.

1.2 It is proposed to renovate and refurbish the site for retail and commercial usage.

Site description

1.3 This site is large brick built 'Victorian' 3 storey pitched roof building that has been derelict for around 10 years or more.



1.4 The building is in a very poor slate of repair with dangerous floors, some of which have collapsed, due to rot and there is extensive fire damage. Access is very limited to any of the floors.

1.5 There was formerly a loft void but the ceiling is no longer present. The slate roof above has no lining.



1.6 The walls in the rooms were covered in old peeling paint and were generally well sealed.




1.7 The walls in the roof void area were not sealed and therefore there are a number of cracks and crevices.

1.8 There are boards on the windows but these are mainly of the inside so of little use for bats.



1.9 The central staircase is in better condition than the rest of the building offering the only safe access area.



1.10 The ground floor has basically collapsed into the basement and neither the ground floor or basement are safely accessible.





1.11 The site is a city centre location, very close to the Arndale centre and Piccadilly. It is unlikely habitat for bats.

1.12 There is no immediate foraging habitat for bats.

1.13 There is a very small external open back stairs area, which could not be accessed.

Aims of the survey

1.14 To ascertain if bats or barn owls roost/nest, or have previously roosted/nested, in the building respectively.

1.15 To recommend any further actions necessary as a result of the survey findings.

Surveyor details

1.16 The survey was conducted by Mike Freeman. He is a professional wildlife consultant specialising in bats, badgers and birds. He has been a licensed bat worker since 1984 and a licensed bat worker trainer since 1989. He has been chairman of the Cheshire Bat Group since its formation in 1986 and is a voluntary Bat Warden for Natural England. He is an Associate member of the Institute of Ecology and Environmental Management (AIEEM).

2.0 LEGAL PROTECTION FOR BATS

2.1 All British species of bat are protected under Schedule 5 of the Wildlife and Countryside Act, 1981(as amended). They are also included in Schedule 2 the Conservation (Natural Habitats & c.) Regulations 1994, which are the domestic implementation of the EC Habitats Directive. The Wildlife and Countryside Act 1981 (as amended) and the Habitats Regulations 1994 have recently been amended by Statutory Instrument 2007 No.1843. In the context of potential development activities affecting bats, this legislation makes it illegal to:

- deliberately kill, injure or capture (take) bats;
- deliberately disturb bats in such a way as to be likely to significantly affect:
    - i. the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or
    - ii. the local distribution or abundance of that species;
- damage or destroy a breeding site or resting place of such an animal;
- deliberately or recklessly disturb a bat while it occupies a place of shelter or protection.

In this sense a bat 'resting place' or roost has been interpreted to mean any structure or place which is used for shelter or protection, whether or not bats are present at the time. The protection applies to all European protected species, regardless of the stage of the life of the animal in question.

Licensing Procedures

2.2 In the case of development works, exemption from the protection afforded for bats under section 39 of the Conservation (Natural Habitats, & c) Regulations 1994 can be granted by means of a licence from Natural England. Three tests must be satisfied before Natural England can issue a licence under Section 44 (2) (e) to permit otherwise prohibited acts:

(i) Section 44 (2) (e) states that licences may be granted by Natural England *"to preserve public health or public safety or other imperative reasons of overriding public interest including those of the social or economic nature and beneficial consequences of primary importance for the environment".*

(ii) Section 44 (3) (e) states that a licence may not be granted unless Natural England is satisfied *"that there is no satisfactory alternative".*

(iii) Under Section 44 (3) (b) a licence cannot be issued unless Natural England is satisfied that the action proposed *"will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".*

3.0 LEGAL PROTECTION FOR OWLS

3.1 All species of wild bird, their nests and eggs are protected under the Wildlife and Countryside Act 1981(as amended) and, amongst other things, it is an offence to, with certain exceptions, intentionally or recklessly:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

3.2 Additionally, under the provision of the Wildlife and Countryside Act 1981(as amended) the Barn Owl (*Tyto alba*) is listed in Schedule 1 – Part 1 of the Act and is protected by special penalties AT ALL TIMES. It is an offence to disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

4.0 BATS IN BUILDINGS

4.1 Buildings provide a choice of safe, dry places made from materials like timbers, bricks, stone, tiles and slates.

4.2 Buildings present a whole range of potential roost sites for bats e.g.: - In walls:

- Behind external hanging tiles or weatherboarding
- In cavity spaces
- At top of solid walls

In eaves:

- Above soffit, or behind fascia and barge boarding

In roofs:

- In tunnel under ridge tiles
- Between underfelt and tiles or slates
- In roof space along ridge beam and at timber joints, at gable end or around chimneybreast.

4.3 The most obvious use of buildings by bats is between May and August, when the pregnant females gather in maternity roosts to give birth and raise their young.

4.4 Females and young often remain in one site all summer or move about using several roosts.

4.5 Most summer colonies will have dispersed by the autumn, though brown long-eared bats often appear early in the year (early April) and leave later (October or later). These bats occasionally use the roost throughout the entire year.

4.6 Buildings may also be used as temporary or "transitional roosts" by small numbers of adult and immature bats of both sexes, particularly in spring and autumn.

4.7 Many outbuildings are attractive to bats for temporary night-time roosts or as sheltered feeding perches. The latter are indicated by the presence of a lot of insect remains, particularly of moths or large beetles and some droppings.

4.8 Cool, undisturbed, humid places are important as hibernation sites. Most species will tuck themselves into small crevices e.g. between bricks/stonework, and can easily pass the winter there unnoticed.

4.9 Bats are usually concealed in crevices, behind roofing felt, in cavity walls, behind soffits and barge boards, in old timber joints or under ridge tiles and are only occasionally seen out in the open in lofts. Consequently, the key identification feature is the presence of droppings. Sometimes droppings may be found on the outside of buildings e.g. on windows, walls or windowsills. On other occasion's droppings found in loft spaces beneath ridge-boards and around chimneys or gable ends is also typical of bats. Hibernating bats leave little or no field signs.

4.10 Bats are sometimes drawn to open water tanks in lofts in search of a drink. They fall into the tank, can't get out and eventually drown. Dead bats are often found in these 'open' tanks in roof spaces where bats habituate.

4.11 Another clue to the presence of bats is a characteristic odour. A polished or clean surface near a place where light enters may also indicate habitual usage by bats. Sometimes bats can be heard "chittering" but this is usually in warm summer weather or when they are about to leave the roost to forage at dusk.

4.12 The species most commonly occurring in buildings (usually modern houses in summer) are the two pipistrelle species (*Pipistrellus pipistrellus, Pipistrellus pygmaeus*). These highly gregarious small bats use buildings for breeding during the summer and, in general, the bats disperse during the autumn. They often roost behind soffits, in cavity walls or behind external cladding. In such cases droppings are often found on external surfaces below the roost entrance/exit. The most likely place to find droppings in the roof void are at the gable end wall and along the eaves. In some cases, the bats may roost beneath ridge tiles, on top of the ridge beam or under insulation close to the eaves. Pipistrelles are frequently found overwintering deep in the cracks, crevices and cavities of usually uninhabited buildings (e.g. barns) and in such cases they leave little or no field signs.

4.13 The brown long-eared bat (*Plecotus auritus*) is the second most common species in Britain but is the one most likely to be encountered in roof voids and may occasionally be seen clinging on to timbers near the apex of the roof. Like the pipistrelle, highest numbers may be seen on hot days between June and September when breeding colonies may be present. During the autumn and in cool weather, bats remain concealed in crevices or hollow walls but may appear on mild days or if disturbed. Brown long-eared bats tend to fly around in the open roof void and hang from the ridge during the night, so droppings are usually found scattered over the floor or concentrated in piles beneath favoured roosting areas, typically beneath the ridge beam. In hipped roofs, piles of droppings may also be found in the junction between two hips.

4.14 A number of other species - serotine (*Eptesicus serotinus*), greater horseshoe bat (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus hipposideros*) are dependent on roofs but are not found locally in the area, though there has been the occasional record of serotine in the North West.

4.15 Whiskered (*Myotis mystacinus*), Brandt's (*Myotis brandtii*), Natterer's (*Myotis nattereri*) and Daubenton's (*Myotis daubentonii*) bats may be present in the area and may be found in roofs but they are not particularly common in such sites. Roosting position is variable but they will be found in the same sorts of places as other species.

4.16 There are six different types of bat roost (A M HUTSON 1993)

(i) Spring gathering roosts
(ii) Maternity roosts
(iii) Mating roosts
(iv) Night roosts and feeding roosts
(v) Prehibernal roosts

(vi) Hibernation roosts

Bats regularly move from site to site even within the above categories.

5.0 BARN OWL HABITAT AND FIELD SIGNS

5.1 The ideal habitat for barn owls is rough grassland supporting a high density of small mammals. This can be in the form of linear features such as drainage ditches or woodland edges or non-linear features such as young tree plantations.

5.2 However, breeding barn owls can sometimes be found with less than one acre of rough grassland within 1km of the nest.

5.3 Barn owls are often found in close proximity to man making use of a variety of buildings (used, unused and derelict) as well as hollow trees.

5.4 It is generally the more ancient trees that are able to provide the dry and spacious cavities favoured by barn owls.

5.5 A pair of barn owls will normally use several sites in their home range and such usage falls into 3 main categories:

- roosting and breeding
- roosting only
- visiting occasionally

5.6 The main field signs to look for when searching for barn owls are:-

- Droppings - These appear as large white splashes (known as 'wash') on hard surfaces or smaller white patches on vegetation.

- Pellets - These are the remains of indigestible parts of their food that has been regurgitated. When fresh, barn owl pellets are moist, black and glossy and vary from thumb nail to whole thumb size.

- Feathers - The largest and most noticeable wing feathers are normally shed during May-October for females and July-November for males. Barn owl feathers are very distinctive.

5.7 Barn owls do not build nests or carry nesting materials.

6.0 OWLS IN BUILDINGS

6.1 There are 5 species of owl resident in the UK. However, only the Tawny Owl (*Strix aluco*) Barn Owl (*Tyto alba*) and Little Owl (*Athene noctua*) use buildings for nesting.

6.2 Owls, in common with other birds of prey, gulls, crows and others, disgorge "pellets" consisting of indigestible food material like bones and fur. When dry, owl pellets are usually grey and it is characteristic that they always contain well-preserved remains of the prey's bones. These pellets are a characteristic field-sign of the presence of roosting or nesting owls.

6.3 Pellets from the different owl species can usually be distinguished on the basis of their size, shape and contents as well as the location where they were found.

7.0 METHODOLOGY

7.1 The buildings were searched internally and externally for evidence of bat and barn owl usage as detailed in Section 4.0 and 6.0 above.

7.2 Ladders, a powerful hand lamp, binoculars and a fibre optic endoscope were used as aids.

8.0 TIMING OF THE SURVEY

8.1 The survey was conducted on the 5th November 2008.

8.2 The weather was cloudy, but dry and cool.

9.0 LIMITATIONS OF THE SURVEY

9.1 There were some very limiting factors to this survey.

9.2 Firstly, most of the building was not safely accessible due to the dangerous state of the structure. Floors had collapsed in areas and others were unsafe to access. The loft void area had no ceiling and was not accessible. The internal survey was therefore limited and only a visual assessment of the likelihood of bat roosting could be made.

9.3 Secondly, November is not the best time to conduct bat surveys as emergence and activity surveys are very limited due to the relative inactivity of bats at this time of year which is heavily weather dependant in this pre-hibernal period. No evening emergence/activity surveys were conducted at this site.

10.0 RESULTS

10.1 No evidence of bat/barn owl activity was found anywhere in the building during the survey.

10.2 The building itself is in a derelict state and the roof area has limited roost potential as there is no loft void or roof lining. However, it is theoretically possible, though considered unlikely, that bats could roost under roof ridges and slates.

10.3 Elsewhere in the internal area of the building the walls are relatively well sealed and offer little in the way of roost sites for bats.

10.4 Likewise the boarded windows offered little opportunity for roosting as many of the boards were placed on the inside and often there were no window- panes in place.

11.0 CONCLUSIONS

11.1 No evidence of bat or barn owl roosting/nesting was found but the 'Limitations of the Survey' need to be taken into consideration.

11.2 The building is situated in a city centre conurbation with little or no attractive bat/barn owl habitat in close vicinity.

11.3 Overall, even given the 'Limitations of the Survey', this building is considered to have very low potential for bat or barn owl roosting/nesting.

12.0 IMPLICATIONS AND RECOMMENDATIONS

12.1 As no evidence of bat roosting was found during the survey then a Natural England licence is not currently required before development work is carried out on the site. Likewise no mitigation strategy needs to be agreed for barn owls.

12.2 However, the survey was very limited and an intrusive search was not possible on health and safety grounds. No evening emergence and/or activity survey was undertaken due to the time of year. The lack of such surveys makes it difficult to prove lack of usage. However, as previously mentioned the site and immediate habitat is considered to have a low likelihood of bat or barn owl roosting/nesting.

12.3 If a bat roost is subsequently found then a licence will be required before development work commences.

12.4 If roofing slates are to be removed, they should be done so by hand to minimise the disturbance to any previously undiscovered bats.

12.5 In the unlikely event that bats/barn owls are accidentally found during building

operations, work must cease immediately in that area, the bats/owls left alone and an ecological consultant contacted for advice.

12.6 Bats should not be handled by site workers, on health and safety grounds. If this is absolutely unavoidable then thick leather gloves must be worn.