BAT SURVEY REPORT
AT
"THE SPACE PROJECT PHASE 2", VAUGHAN STREET, WEST GORTON
FOR
MANCHESTER CITY COUNCIL

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1.0 INTRODUCTION

1.1 A bat survey was requested at the Microsystems Building, Sharp Project, Gorton, Manchester M12 5BT.

1.2 Plans are proposed to demolish the building to make way for further on-site development.

Site Description

1.3 The site is a two storey flat roofed building.






1.4 The building is brick and block built with corrugated metal sheet cladding and a flat corrugated metal roof.





1.5 The whole building has been heavily vandalised over a long period of time.





1.6 All the windows were completely removed around 2-3 weeks prior to the survey. This has exposed cavities between the cladding and the walls.





1.7 Long term water ingress from the roof has led to the disintegration and collapse of the suspended ceilings internally.





Surrounding habitat

1.8 The site is located in central Manchester with little suitable bat habitat making it a sub-optimal environment for them.





Aims of the survey

1.9 To ascertain if bats use, or have previously used, the site for roosting purposes.

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

Surveyor details

1.11 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 Chartered Institute of Ecology and Environmental Management (ACIEEM).

2.0 LEGAL PROTECTION FOR BATS

2.1 All UK bats and their roosts are protected by law which gives strong legal protection to all bat species and their roosts. For all countries in the UK the legal protection maybe **summarised** as follows:

You will be committing a criminal offence if you:

1. Deliberately* capture, injure or kill a bat
2. Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
3. Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
4. Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
5. Intentionally or recklessly obstruct access to a bat roost even if bats are not present at the time

**In a court, 'deliberately' will probably be interpreted as someone who, although not intending to capture/injure or kill a bat, performed the relevant action, being sufficiently informed and aware of the consequence his/her action will most likely have).*

Defences include:

1. Tending/caring for a bat solely for the purpose of restoring it to health and subsequent release
2. Mercy killing where there is no reasonable hope of recovery (provided that person did not cause the injury in the first place – in which case the illegal act has already taken place).

Penalties on conviction – the maximum fine is £5,000 per incident or per bat (some roosts contain several hundred bats), up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

NB Whilst the protection afforded to bats is virtually the same in all UK countries please refer to the specific legislation for England and Wales, Scotland and Northern Ireland for the precise wording – the above is a brief summary only.

Licensing Procedures

Licences to permit illegal activities relating to bats and their roost sites can be issued for specific purposes by the relevant licensing authorities in each country. These are sometimes called 'derogation licences' or 'European Protected Species' licences. It is an offence not to comply with the terms and conditions of a derogation licence. If you carry out work affecting bats or roosts without a licence, you will be breaking the law.

In the case of development works 3 tests must all be satisfied before the relevant licensing authority can issue a licence:

1. A licence MAY be granted *'to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.*
2. A licence may NOT be granted UNLESS the licensing authority is satisfied *'that there is no satisfactory alternative'.*
3. A licence CANNOT BE ISSUED unless the licensing authority 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'.*

2.2 The following people need to take particular note of the legislation:

- Property owners/householders who have a bat roost in their property
- Woodland owners/managers, and owners of individual trees
- Arboriculturalists and foresters
- Pest controllers
- Planning officers
- Building surveyors
- Architects
- Property developers
- Demolition companies
- Builders
- Roofers
- Ecological consultants

3.0 BATS IN BUILDINGS

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

3.2 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.

3.3 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.

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

3.5 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.

3.6 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.

3.7 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.

3.8 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.

3.9 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.

3.10 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.

3.11 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.

3.12 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.

3.13 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.

3.14 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.

3.15 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.

3.16 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.

4.0 METHODOLOGY

4.1 The buildings were searched internally and externally for evidence of bat usage as detailed in Section 3.0 above.

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

5.0 TIMING OF THE SURVEY

5.1 The survey was conducted on the 12th February 2014.

5.2 There was heavy rain all day becoming very windy and a temperature of 6° C.

6.0 LIMITATIONS OF THE SURVEY

6.1 This was a daytime survey only. No evening emergence or dawn re-entry surveys were conducted due to the time of year, weather conditions and general unsuitability of the building.

6.2 The whole building had suffered from extensive vandalism over a long period, window removal by contractors and an intrusive asbestos survey. Ceilings have collapsed and the whole building been recently cleared of obstructions on the floor making it difficult to find any residual evidence of bat occupation had it been present.

7.0 RESULTS

7.1 No evidence of bat usage was found anywhere in the building.

7.2 The flat metal roof had no lining and offers little attraction for bats.

7.3 The suspended ceilings beneath the roof had all collapsed.

7.4 Generally speaking the metal cladding on the external walls was well sealed but there were some gaps.




7.5 Due to the windows being removed and asbestos surveys cavities between the cladding and inner walls were exposed. These were only opened up around 2-3 weeks prior. They were checked, where possible, but no evidence of roosting was found.





8.0 CONCLUSIONS

8.1 No evidence of bat roosting was found and the building was considered to have low potential for such activity.

8.2 The immediate habitat around the site was considered sub-optimal for bats.

9.0 IMPLICATIONS AND RECOMMENDATIONS

9.1 As no evidence of bat roosting was found and potential for such is considered low a Natural England licence is not considered necessary before the proposed development can take place.

9.2 However, bats can, and do, change their roost sites regularly. If a roost is subsequently found the situation is likely to change and a licence required.

9.3 In the unlikely event that bats are found during building operations work must cease immediately in that area, the bats left alone and a bat consultant contacted for advice.

9.4 Site workers should not handle bats on health and safety grounds. If this is absolutely unavoidable (unlikely) then thick leather gloves should be worn to avoid being bitten.