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Daytime Bat Survey: Warehouse off New Mount Street, Manchester

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The information and advice contained in this report has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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EXECUTIVE SUMMARY

This report has been prepared by Peak Ecology Ltd on behalf of CBRE Ltd. It provides the results of a Daytime Bat Survey associated with the proposed development at the former warehouse, 23 New Mount Street in Manchester.

METHODS

The daytime site visit was carried out on 13th July 2016 and in line with current good practice guidelines (Collins (ed) 2016), included a full internal and external assessment of the site for potential to support bats. The building was searched for evidence of roosting bats and an assessment was made of all features for their potential to support bat roosts.

A search was also made for evidence of nesting birds at the site, and an assessment made of the impacts the development may have upon any other protected species.

RESULTS AND RECOMMENDATIONS

No direct evidence of roosting bats was found during the inspection and no features had the potential to support roosting bats such as gaps between ridge tiles or missing roof tiles. It was concluded that the building had negligible suitability for roosting bats and no further surveys would be necessary.

The installation of artificial bird, bat and insect boxes is recommended where possible, to enhance the ecological value of the site post-development. Night flowering plants should be incorporated into green roofs to encourage insects, providing a foraging opportunity for bats.

A check should also be made for nesting birds prior to the commencement of works.

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1 INTRODUCTION

1.1 Background

This report has been prepared by Peak Ecology Ltd on behalf of CBRE Ltd. It provides the results of a Daytime Bat Survey associated with proposed residential development at the Warehouse off New Mount Street, Manchester. The purpose of this report is to provide:

- An assessment of habitat suitability for roosting bats in built structures at the site;
- Scope of any additional survey effort that may be required to investigate presence / likely absence of roosting bats; and
- Outline recommendations for mitigation and/or licensing where relevant.

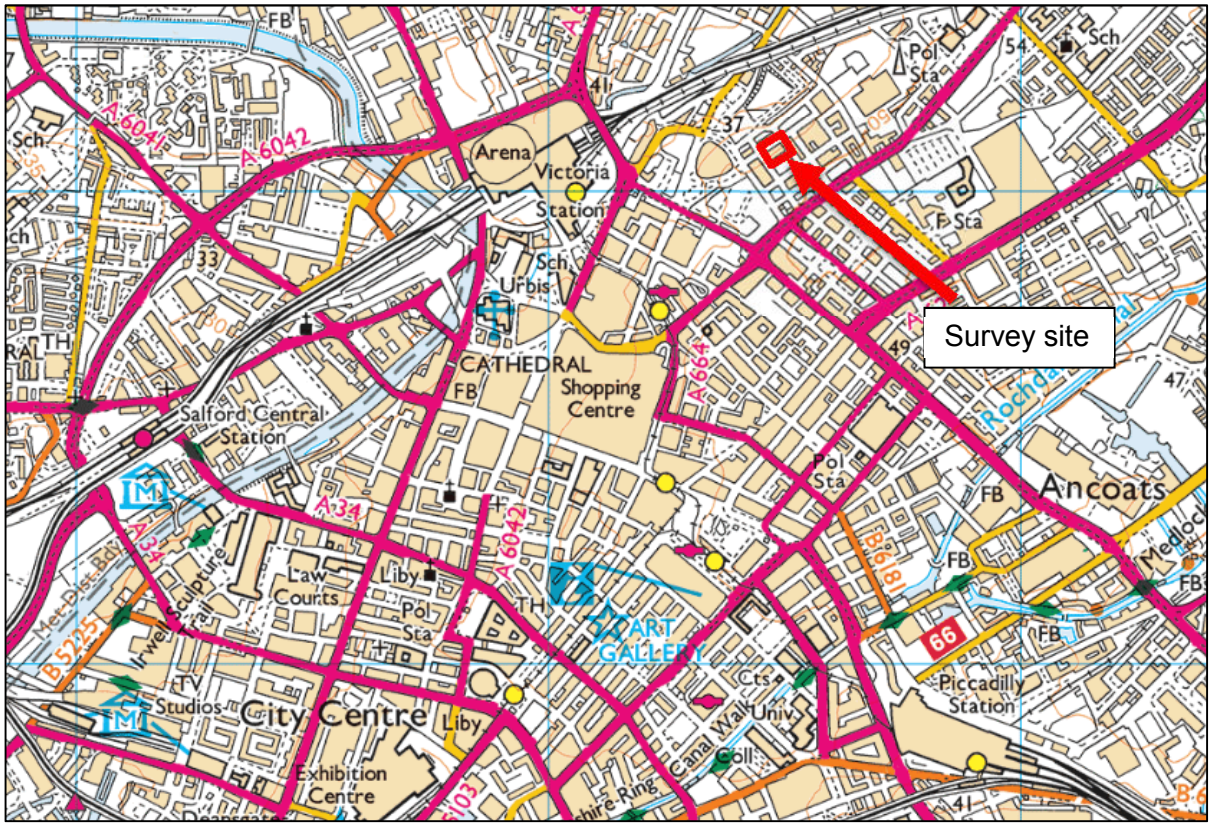
The approach to this assessment follows best practice published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2015), the British Standards Institution (BSI, 2013) and The Bat Conservation Trust (Collins (ed), 2016). Details of individual survey methods and associated supporting information are provided in Section 2.

1.2 Site Description

The site comprises a Grade II listed warehouse on New Mount St, Manchester (central grid reference: SJ 8447 9907). The building, formerly the Co-operative Printing Society, covers an area of 34,000sq ft (3158.7m^2) and primarily serves as business space and units. The surrounding land use largely consists of old industrial buildings, converted for residential use, and hardstanding, with a city park approximately 50m north of the site.

The site location is illustrated in Figure 1.

Figure 1: Location plan



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1.3 Planning / Legislatory Context

All British bat species are European Protected Species under The Conservation of Habitats and Species Regulations 2010 (as amended). They are also listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are protected by Parts 4(b), 4(c) and 5 of Section 9 of that Act.

In net effect, it is an offence to:

- Deliberately capture, injure or kill bats;
- Intentionally or recklessly disturb bats in a place of shelter (roost);
- Intentionally or recklessly damage, destroy or obscure access to a breeding site or resting place (roost); and/or
- Possess, control, transport, sell or exchange a bat or any part of a bat, unless acquired legally.

NB. Because bats use roosts at different times of year and typically return to the same roosts annually, it is a legal opinion that a roost is protected whether bats are in occupancy at the time or not.

Under the National Planning Policy Framework (NPPF) 2012 the presence of a European protected species such as bats is a material planning consideration. When assessing a planning application, in order to satisfy the three Habitats Directive tests the Local Planning Authority (LPA) requires sufficient information about impacts on the species that are likely to result from the proposals as well as any necessary mitigation or compensatory measures. The test relevant to this report is that which relates to the Favourable Conservation Status of the species.

In addition to this, county and borough/district councils typically have biodiversity policies within their Local Development Frameworks that they must also comply with.

2 METHODOLOGY

2.1 Daytime Bat Inspection

A daytime bat inspection was carried out on 13th July 2016, with survey methods following current good practice guidelines published by the Bat Conservation Trust (Collins (ed), 2016).

A visual inspection was made of all internal and external structures associated with the building, to assess the suitability for roosting bats. Roof voids were assessed using binoculars, ladders and high powered torches where necessary to facilitate a more detailed inspection of individual features.

The locations and descriptions of any potential roost features (PRFs) such as holes, crevices or internal voids that could be used by roosting bats were recorded on a site plan and PRFs were photographed. A search was also made for any evidence of bat presence such as droppings or feeding remains.

Survey methods and assessment criteria for structures are described in further detail below.

2.2 Survey Team

The survey was carried out by Carole Boon BSc MCIEEM. Carole has been a professional ecologist for over eleven years and has extensive experience in survey and site assessment for bats. She is registered to use a Class 1 bat survey licence (licence registration number 2015-11489-CLS-CLS) issued by Natural England and is appropriately qualified for the surveys based on the CIEEM competency framework (CIEEM, 2012).

Carole was assisted by graduate ecologist Charlotte Haylock, who worked under supervision at all times.

2.2.1 *Assessment Criteria*

Based on the number, location and type of any potential roost features, the building was categorised as having **negligible**, **low**, **moderate** or **high potential** for roosting bats, or **confirmed roost** where direct evidence of bat presence was encountered. Nb. The overall roost category assigned to the building must be determined by the most suitable feature present, so that a building with lots of very poor features would be categorised as negligible or low potential but if there is also one very suitable feature it would be categorised as moderate or high potential.

Evaluation of roost potential is necessarily subjective and relies on the professional judgment of the surveyor; however, the table below provides a useful guide to how this is informed.

Table 1: Guidelines for assessing roost and habitat suitability (Collins (ed), 2016)

Suitability	Roosting Habitats	Commuting and Foraging Habitats
Negligible	Trees and structures with no apparently suitable potential roost features.	Negligible habitat features likely to be used by bats.
Low	Structures with one or more potential roost features that could be used by individual bats opportunistically but do not provide enough space, shelter, protection or appropriate conditions to be used on a regular basis or by large numbers of bats. Trees with no obvious features seen from the ground or with only very limited roosting potential. Not suitable for maternity or hibernation roosts.	Habitat that could be used by small numbers of commuting bats, eg.an unvegetated stream or gappy hedgerows. Poor connectivity to other features in the wider landscape. Isolated features that could be used by small numbers of foraging bats, such as lone trees or small patches of scrub.
Moderate	Trees or structures with one or more potential roost features that could be used regularly by bats but are unlikely to provide suitable conditions for large numbers of bats. Unlikely to be suitable for maternity or hibernation roosts. E.g. small or shallow crevice features only, no access into roof voids or deep cavities.	Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging, such as trees, scrub, grassland and water.
High	One or more potential roost features that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially longer periods of time. Suitable for maternity and/or hibernation roosts. Eg. Old buildings, especially barns, churches and structures with large roof voids or underground sites such as cellars, caves and tunnels. Eg. Mature and veteran trees, those with woodpecker holes or deep fissures and cavities	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats, such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats, such as broad-leaved woodland, tree-lined watercourses and grazed parkland.

2.3 Nesting Birds

A search for evidence of nesting birds was undertaken during the building assessment, with any nests or potential access points noted.

2.4 Limitations to Survey

2.4.1 *Survey Method*

It should be noted that while a surveyor may be able to confirm presence of a bat roost where evidence such as droppings or feeding remains are found in accessible areas, it is not always possible to rule out presence of bats based on a daytime survey alone. Pipistrelle

species *Pipistrellus sp.* in particular tend to roost in small crevices within walls or the roof structure so that evidence of their presence would not be found without carrying out a more destructive search of potential roost features.

Daytime surveys should be considered a means of identifying the suitability of a site for use by roosting bats and determining the scope of any more detailed follow-up surveys, rather than necessarily comprising the full extent of survey that may be required.

2.4.2 ***Fieldwork***

The majority of areas within the building were fully accessible to the surveyors. Those areas that could not be accessed were assessed from the exterior, to note any possible entry points for bats. Surveyors were able to walk the entire boundary of the site to assess each elevation from below.

2.4.3 ***Lifespan of Data***

The results and recommendations contained within this report are considered to be valid for up to two years from the date of survey. After that period, an update may be required in order to inform ecological constraints to development proposals and/or accompany a planning submission.

3 RESULTS

3.1 Site Assessment

3.1.1 *External*

The building was a complex of single storey, two storey and four storey structures built in a rectangular shape with a small open courtyard in the middle. The main four storey elevation faced New Mount Street to the south east, with the north western elevation facing Naples Street and consisted of a variety of single and two storey sections. Ludgate Street bordered the site to the south west and School Street to the north east. The slope of the land from south to north meant that the basement level of the New Mount Street elevation became the ground level of the Naples Street elevation.


North western elevation


South eastern elevation

The walls were constructed of red brick with intact pointing on all elevations. The windows were single glazed, with either wooden or UPVC frames. Aside from a two storey section which had a flat roof, the majority of the building had a pitched, hipped slate tiled roof and clay ridge tiles, which all appeared intact with no slipped or missing tiles.

Lead flashing was in place around the roof of the single storey section, connecting to the adjoining brick and concrete walls. The flashing was in good condition and no visible gaps or cracks could be seen between it and the brickwork.

No evidence of bats, access points or potential roost features was found during the external assessment.

3.1.2 *Internal*

The majority of the space within the building was, at the time of survey, being used as offices and were clean and well maintained.

The north eastern corner of the building comprised an extension to the original warehouse building. This section was single storey with a ground-floor basement that was accessible from the road. The ceiling of the ground floor storey had either fallen through or been removed along with the rafters of the floor above, therefore an assessment of the roof was made from beneath the roof void. The roof was completely sealed with roofing felt, with no gaps to allow access for bats or roosting opportunities.

As there was no evidence of damp or rot on the walls in the roof void, this suggests there were no gaps to allow moisture in.



Sealed roof void assessed through missing floorboards

The second roof void, within the four storey section of the warehouse, was accessed via an internal staircase. The area immediately through the doorway was being used for storage and was clean of dust and cobwebs. The void had machine cut timbers and king posts connected with metal joints, and was approximately 3m in height to the ridge. The roof was fully boarded up with all gaps taped or plastered, and had large skylights meaning this section was very well lit.

The roof void was divided by a plasterboard partition. Beyond this partition the void was of a similar structure, yet had a cluttered floor where the boards had been removed and insulation pulled up. This section was darker as only light entering was through the floorboards from the offices below.



Roof void of the four storey section



Gaps sealed with tape and plaster



Section of roof void beyond plasterboard partition cluttered with insulation

The only other area open to the roof was the section in between the north eastern extension and the large warehouse building. The roof of this section was composed of reinforced glass panels with metal frames, and had breezeblocks built up against the brick of the original building. This area was well lit and air conditioned, and although the area had been used as storage for furniture, there was no dust or cobwebs to suggest it was out of use.



View from ground floor of section connecting the main building to north eastern extension

3.2 Assessment of Foraging and Commuting Habitats

There is limited opportunity for foraging as the site comprises only the warehouse building, with no suitable surrounding habitat such as hedgerows or woodland. The large city park 50m north of the site provides a suitable foraging habitat, however, there are no landscape features to provide connectivity to the site for commuting bats.

3.3 Nesting Birds

Based on both the internal and external inspections, there was no evidence to suggest that birds were using the building for nesting, however, it was not possible to make an assessment of the flat section of the roof as this view was restricted from ground level.

4 EVALUATION

4.1 Suitability of Roosting Habitats

Three separate roof voids were present in the building however, following an internal inspection these, and the rest of the building, were considered to be of **negligible** potential for roosting bats. This is due to the heavily urbanised location, lack of any suitable access points and the high levels of disturbance throughout the building.

The results of this assessment indicate that bats are unlikely to pose a constraint to the development.

4.2 Suitability of Foraging / Commuting Habitats

The immediate surrounding habitat consisted of buildings and hardstanding and was considered sub-optimal for foraging and commuting bats. In terms of habitat loss, the conversion of the building will not have a detrimental impact on bats in this respect.

5 RECOMMENDATIONS

5.1 Further Survey

Based on the results of the daytime inspection, the presence of bats is extremely unlikely and no further bat surveys are required. If there are significant delays prior to the onset of works, and once works commence any bats are later found to have colonised the site, work must stop immediately and a licenced bat ecologist must be consulted.

No bird nests were discovered during the survey, however, a thorough search for active nests must be undertaken prior to the commencement of works. The majority of bird species will only nest between March and August (inclusive) and work after this time is unlikely to affect nesting birds. All nesting birds, eggs and dependent young are protected under the Wildlife and Countryside Act 1981 (as amended) therefore if active nests are found, they must remain unaffected until the young have fledged and all birds have left the nest.

5.2 Ecological Enhancement

National planning policy recommends that all developments incorporate ecological enhancement where possible. However, due to the inner city location of the warehouse, the Grade II listing of the building and no works to the external structure or to the roof, the opportunities for ecological enhancement is very limited. The provision of private roof tops gardens and green roofs will improve the overall biodiversity of the site. Consideration should be given to the following suggestions:

- Incorporate bat boxes onto new extensions to the building to provide opportunities for roosting bats. Lighting should be directed away from any new roosts to ensure minimal disturbance to bats.
- Incorporate bird boxes suitable for species that might use the site post development, particularly urban Red List species such as house sparrow *Passer domesticus* and Amber List species, swift *Apus apus.*
- Incorporate insect boxes suitable for a wide range of species.
- Night flowering, nectar rich plants such as honeysuckle and jasmine should be added to green roofs to attract insects and, in turn, encourage bats to the site.

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