



No. 47 Piccadilly Gardens

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1 INTRODUCTION

1.1. BACKGROUND

- 1.1.1. Ethical Partnership LLP has been appointed to bring forward a planning application for a 9 storey hotel in central Manchester. The building, located at no. 47 Picadilly Gardens, is partially derelict, but is also a listed building.
- 1.1.2. During initial planning consultations, Greater Manchester Ecology Unit (GMEU) requested that the application be accompanied by bat activity surveys and a black redstart survey. These surveys have subsequently been undertaken by Avian Ecology Ltd. (AEL) in spring/summer 2014 and this report details those surveys.

1.2. OBJECTIVES

- 1.2.1. The objectives of the study were to:
- assess the potential of the site to support protected bat and bird (specifically black redstart) species; and outline the potential impacts from the proposed works; and,
 - identify potential ecological constraints to the scope of works and outline recommendations in relation to appropriate mitigation measures or further specialist surveys as appropriate.

2 LEGISLATION

2.1. BATS

- 2.1.1. Bats are offered special protection under The Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9. This Act transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (commonly referred to as the “Bern Convention”). The Wildlife and Countryside Act was amended by the Countryside and Rights of Way [CroW] Act 2000. This makes it an offence to:
- Intentionally kill, injure or take any species of bat [Section 9(1)];
 - Possess or control any live or dead specimens or anything derived from a bat [Section 9(2)];
 - Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat [Section 9(4)(a)]; and
 - Intentionally or recklessly disturb a bat while it is occupying a place or structure which it uses for that purpose [Section 9(4)(b)].
- 2.1.2. Bats receive additional protection under The Conservation of Habitats and Species Regulations 2010 (as amended), which transposes into UK law Council Directive 92/43/EEC on the Conservation of Natural Habitats of Wild Fauna and Flora (referred to as the Habitats [and Species] Directive). Bats are listed on Annex II and Annex IV of the Directive. Inclusion in Annex II serves to underline their (the bats’) conservation significance; inclusion in Annex IV (European Protected Species) means that member states are required to put into place a system of strict protection as outlined in Article 12. This makes it an offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat; and
- Deliberately damage or destroy a breeding site or resting place of a bat.

2.1.3. There are several exceptions to the provisions listed above. Licences permit unlawful activities and are granted for certain purposes by Natural England for scientific, education and/or conservation purposes (including survey). Natural England issue licences for the purposes of “preserving public health or 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”.

2.2. BIRDS

2.2.1. With certain exceptions¹, all wild birds, their nests and eggs are protected by Section 1 of the Wildlife and Countryside Act 1981 (as amended). Under the Act, it is an offence, inter alia, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird.

2.2.2. These offences do not apply to hunting of birds listed on Schedule 2 subject to various controls.

2.2.3. Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- Intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young;
- Intentionally or recklessly disturb the dependent young of any such bird.

2.2.4. Black redstart *Phoenicurus ochruros* is listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is considered further in this respect.

3 METHODOLOGY

3.1. BAT SURVEYS

Personnel

Bat surveys were undertaken by suitably experienced ecologists and supervised by a licenced bat worker in accordance with practices detailed in both the ‘Bat Conservation Trust; Bat

¹ Some species, such as game birds, are exempt in certain circumstances.

Surveys, Good Practice Guidelines' (2nd Ed.)² and Joint Nature Conservation Committee 'Bat Workers Manual (3rd Ed.)'³.

Habitat appraisal

- 3.1.1. An assessment was initially made through desk study and consideration of the habitats present in the vicinity of the building, as to the likelihood of bats being present. The urban location of the site and poor connectivity to suitable semi-natural habitat such as woodland and trees indicated there was a low likelihood of the presence of bats.
- 3.1.2. Following Bat Conservation Trust (Hundt, 2012) guidance, a 'low risk' site requires single evening (emergence) and dawn (re-entry) surveys, combined with an internal building inspection where possible. These surveys must be completed between May and September.

Internal Building Inspection

- 3.1.3. Bat roosts can be found in many places such as trees, buildings, bridges, underground, etc. The most common recorded sites around buildings include gable ends, below ridge tiles, under roof slates/ tiles, behind soffits or barge boards, within cavity walls, behind cladding, as well as in loft spaces, cellars etc. Access to the above spaces need only be through a hole not exceeding 10 – 20mm in diameter.
- 3.1.4. Signs of roosting bats in buildings may be indicated by one or more of the following:-
 - Staining, beneath or around a resting area, caused by the natural oils in bat fur;
 - Bat droppings beneath a resting area;
 - Bat droppings and/ or insect remains beneath a feeding area;
 - Audible squeaking, from within the hole, especially on hot days or at dusk;
 - Insects, especially flies, around a hole;
 - A characteristic odour of bats and/ or their droppings; and
 - Dead bats – usually young bats from a nursery roost site.
- 3.1.5. The licensed bat ecologist along with another ecologist experienced in conducting bat surveys attended site on 20th June 2014 to undertake an external visual inspection of the building and assess the suitability of any features that may provide suitable roosting habitat, along with an assessment of the immediate surroundings for foraging potential. An internal inspection of the building was subsequently undertaken to search for bats and evidence indicating use by bats. The surveyors were equipped with ladders, torches, close focusing binoculars and bat detectors.
- 3.1.6. The surveyors walked around the exterior of the building and inspected all accessible interior roof sections of the building where access could be gained looking for signs of bats. Particular attention was paid to all ridgelines, gable ends, the timber sections and other areas where the structural timbers met the brickwork. The joints in the timber roof trusses

² Hundt L (2012) Bat Surveys – Good Practice Guidelines 2nd edition. Bat Conservation Trust, London.

³ Mitchell-Jones, A.J. & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual. JNCC.

were also examined where accessible. All appropriate horizontal and vertical surfaces were checked throughout the building for signs of bats.

Emergence/ Re-entry surveys

- 3.1.7. In line with guidance (Hundt, 2012) for a 'low risk' site, surveys also included single emergence and re-entry visits. Both visits were undertaken within the optimum survey period, with the emergence survey conducted on 26th June 2014 and the re-entry survey undertaken on 2nd July 2014. These surveys were carried out under suitable weather conditions around sunset/ sunrise when bats would be active.
- 3.1.8. The surveys were undertaken from 1.5 hours before sunrise until daylight (dependent on location and cloud cover) in the case of re-entry surveys and 0.5 hours before sunset until 1.5 hours after in the case of emergence surveys.
- 3.1.9. Two surveyors; equipped with Wildlife Acoustics Echo Meter 3 (EM3) electronic bat detectors, were deployed to ensure that all features of interest across the building scheduled for survey were covered. All bats seen or heard on the detectors were recorded on site maps. Any indications of bat roosts being present in the building were actively sought; such indicators included:
 - Early emerging bats in relation to the sunset time;
 - "streams of bats" leaving a roost site at sunset; and
 - Bats swarming around a particular feature of a building (at dawn).

Survey Limitations

- 3.1.10. The buildings were examined internally however, in some rooms there was no access to the roof voids due the presence of suspended ceilings. In these areas an internal inspection of the room was based on any indicative signs present on surfaces.
- 3.1.11. The survey was also limited to the parts of the building either visible from ground level with the use of binoculars or considered safe for access. Most of the lower suitable features for bats were checked where accessible, access being gained by ladder.
- 3.1.12. The timing of the survey, during the optimal activity period, is ideal as bats are active and evidence of bats (droppings, insect parts, etc.) may be visible.
- 3.1.13. However it must be realised that the use of a particular building/ structure by bats can significantly vary, not only on a seasonal basis, but also from day to day. In summary, it must be appreciated that this survey may only provide a 'snapshot' of bat activity. Importantly, lack of evidence of a bat roost does not guarantee their absence.
- 3.1.14. However, In spite of these limitations, it is considered that this study will allow a robust and professional judgement to be made on the use of the building by bats and will adequately inform recommendations for further survey and/or mitigation.

3.2. BLACK REDSTART SURVEYS

Personnel

- 3.2.1. All surveys were completed by experienced ornithologists in line with best practice guidance.

Habitat Appraisal

- 3.2.2. The building was appraised for suitability to support the species from ground level, as access onto the rooftop was not initially possible. It was later possible to access the top floor of the building and the roof was determined to be a sloping slate structure considered to offer poor suitability for the species. The derelict nature of the building potentially provides some suitable nesting structures, however the adjacent building supported a flat roof likely to offer more favourable habitat. On this basis, the building was considered to offer low potential to support the species. As there was a small chance of use; and on the request of GMEU, surveys were initiated at the end of May 2014.

Survey Timing

- 3.2.3. Surveys followed the standard methodology described in Gilbert *et al.* (1998). A total of 5 visits were undertaken over the period mid-April to the end of June. Surveys were timed to cover the early morning (in the hours after sunrise) and evening (hours before sunset).

Survey Area

- 3.2.4. The survey area was defined as all land within the development plot and immediately bordering land.

Methods

- 3.2.5. The survey area was walked, with frequent pauses made to listen for singing birds or to observe any suspected sightings through binoculars. Males prefer to sing from a prominent position on a building e.g. a rooftop, gutter or chimney stack. Their calls are far carrying and scratchy and provide the best auditory cue to presence.
- 3.2.6. Where observed or heard, the location and behaviour of the birds is mapped using conventional British Trust for Ornithology (BTO) codes. A summary of registrations from all survey visits is then compiled onto a single plan and the number of proven, probable and possible breeding redstarts determined. These are defined in *Gilbert* as:

Breeding is *proved* if:

- A nest or used nest is found
- A nest with young is seen or heard
- Recently fledged young are located
- Adults are seen entering or leaving a nest-site, or an adult is seen incubating
- An adult is seen carrying a faecal sac or food for young

Breeding is *probable* if:

- A pair of birds is seen in suitable nesting habitat during the breeding season
- A male is heard singing at the same place on two or more occasions
- Courtship and / or display are seen
- A bird is seen visiting a probable nest-site

- Birds exhibit agitated behaviour or give alarm-calls
- Nest building is observed

Breeding is *possible* if:

- Birds are seen in the breeding season
- Birds are seen in possible nesting habitat during the breeding season
- A singing male is heard once during the breeding season

Survey Limitations

- 3.2.7. It was not possible to conduct surveys in April due to the timing of commissioning of the work. This is not considered to affect the findings or robustness of survey, due to the poor suitability of the habitat and robust survey coverage over the remaining survey season.

4 RESULTS

4.1. BATS – EXTERNAL BUILDING INSPECTION

- 4.1.1. The external and internal building inspection was undertaken on 20th June 2014. Weather conditions were conducive to the external survey and there had been no preceding rain or strong winds that would wash away signs of bat use.
- 4.1.2. Located within Manchester City Centre the building was noted as being a two story, 19th century, solid brick wall building. Although mostly not visible from the outside, the roof (where visible) was of a slate tile, apex construction, with the exception of the front of the building where a large glassed sky-light runs along half the length of the building. The majority of the windows and doors are in-tact and of plastic or wooden construction. Windows and doors on the ground floor were also noted as being shuttered. The building was noted as having brick facias, with a complete absence of soffit boards.
- 4.1.3. The building is joined to a 4+ story building to the east of similar age and construction. The building to the west has been demolished, with the third-part wall remaining. Other buildings within the immediate vicinity are a mixture of modern office blocks, pubs, banks, with some being of a similar age and construction. A semi-mature tree line is found running east to west along the front of the building. A number of street lights were located around all three exposed sides of the building.
- 4.1.4. A number of entry and/ or egress points were identified around the outside of the building. Of particular note were a number of slipped and missing tiles and gaps under ridge tiles on the apex roofs, a number of holes within the brickwork on the rear face of the building, gaps in the brick facia on the western side of the building and a large hole within the wooden door to the rear of the building.

4.2. BATS - INTERNAL BUILDING INSPECTION

- 4.2.1. The building was noted as having numerous derelict rooms spread over three stories (including a cellar). The majority of the rooms appeared to have been used for storage, although a small office and shop could have been operating out of the ground floor rear room and a beauty/ tanning parlour on the first floor rooms. Two courtyard type areas were also noted within the centre of the building; one open courtyard and one which appears to have been historically incorporated into the apex roof.

Cellar rooms

- 4.2.2. These rooms, which comprised of predominantly former storage rooms were full of abandoned materials and rubbish at the time of survey. A water leak was noted in the largest of the rooms creating a very warm and humid environment. The main room had a narrow suspended ceiling throughout; the room to the rear was a very low level brick-arch ceiling, with pointing in what appeared to be good condition.
- 4.2.3. No bats or signs of bats were identified in any of the rooms throughout the cellar area.

Ground floor

- 4.2.4. Comprising of an operational and disused shop, storage areas, rest rooms and network of corridors and stairs. In either active or recently active use, these rooms appeared to be in a relatively good condition. A suspended ceiling was noted throughout the majority of the rooms, although there were no egress points to be able to investigate these areas. A number of dead pigeons and signs of their use of the rooms (guano) throughout the first floor was noted.
- 4.2.5. No bats or signs of bats were identified in any of the rooms throughout the ground floor.

First floor

- 4.2.6. The first floor of the building had been modified into a number of 'booths' and rooms used for sunbeds and other beauty operations. A suspended ceiling was found throughout all these rooms, with pigeons utilising the void between the actual roof and suspended ceiling during survey. Numerous dead pigeons and extensive signs of their use of the rooms (guano) throughout the first floor were noted. No egress points were found be able to investigate these areas further.
- 4.2.7. A number of holes within the main wall were noted around the stairwell leading to the second story, with extensive signs of pigeon utilisation in the form of 2 – 3cm of guano present around the holes. These holes provided possible entry/ egress points into the building.
- 4.2.8. No bats or signs of bats were identified in any of the rooms throughout the first area.

Second floor

- 4.2.9. Comprising of a large vaulted room to the rear of the building with a glass sky-light running along the length of the apex roof. Two small rooms are found to the front of the building. The vaulted rooms ceiling had fallen in areas exposing the slate tiles and structure of the roof behind. It is possible that, if there were suitable egress points that this roof area could provide suitable features for roosting bats.
- 4.2.10. Numerous living and dead pigeons and extensive signs of their use of the rooms (guano) throughout the second floor were noted. No bats or signs of bats were identified in any of the rooms throughout the second floor area.

Roof voids

- 4.2.11. With the ceiling to the rear of the building vaulted, there were no roof voids within this area. Two roof voids were found at the front of the building. An investigation of these areas identified an apex roof supported by modern square-sawn timbers. The slate tiles are

backed by a combination of felt and modern plastic membrane. A number of holes were found within a gable end in this area providing entry/ egress points into the roof void. Extensive use of this area by roosting and breeding pigeons was observed, with numerous pigeon nests (including recently hatched chicks) observed.

4.2.12. No bats or signs of bats were identified in any of the roof voids.

4.3. BATS - EMERGENCE/ RE-ENTRY SURVEYS

4.3.1. Survey conditions, sunset times and survey times are given in Table 1.

Table 1: Dusk Emergence and Dawn Re-entry Surveys – Weather Data Recorded on Site

Date	Sunset/ Sunrise	Survey Start/Finish	Temp	Wind (Calm/light/ moderate/ strong)	Rain (0/light/ moderate/ heavy)	Cloud Cover
26/06/2014	21:42	21:10 – 23:10	18-15°C	Light	0	8/8
02/07/2014	04:55	03:25 – 05:05	13°C	Calm	0	0/8

4.3.2. No visual evidence was found of any bat species entering or leaving the building during the dusk emergence or dawn re-entry surveys. No bat calls were heard (for calls within the audible range e.g. some social calls) or calls recorded on digital recording devices during these surveys.

4.4. BIRDS – BLACK REDSTART

4.4.1. Survey conditions, sunset times and survey times are given in Table 2.

Table 2: Dusk and Dawn Black Redstart Surveys – Weather Data Recorded on Site

Date	Sunset/ Sunrise	Survey Start/Finish	Temp	Wind (Calm/light/ moderate/ strong)	Rain (0/ light/ moderate/ heavy)	Cloud Cover
21/05/2014	04:58	04:45 –06:25	10°C	Calm	0	1/8
06/06/2014	04:40	04:25 – 5:25	6°C	Calm	0	0/8
20/06/2014	04:37	04:05 – 6:05	12°C	Calm	0	0/8
23/06/2014	21:44	20:30 –21:30	19°C	Light	0	0/8
26/06/2014	21:44	20:45 –22:00	18°C	Light	0	8/8

4.4.2. Three early morning and two evening visits were undertaken. Direct access to the rooftop was not possible and survey effort therefore concentrated on listening for characteristic calls from ground level in combination with a watch for presence.

4.4.3. No visual or aural evidence of black redstart was found during any of the 5 survey visits.

4.5. BIRDS – OTHER SPECIES

- 4.5.1. A number of pigeon *Columbia livia* roosts or dead pigeons were observed within the building during the internal bat inspection. Blackbirds *Turdus merula* and sparrows *Passer domesticus* were also observed around the building during the bat activity surveys. It is possible that sparrows use the building for nesting, although this was not confirmed during survey.

5 CONCLUSION & RECOMMENDATIONS

Bats

- 5.1.1. The semi-mature tree line found running along the front of the building; through a review of satellite imagery, does not provide connectivity with areas of open habitat in the wider landscape and only provides commuting to habitats of a similar type to that found immediately adjacent to the building.
- 5.1.2. A number of street lights were located around all three exposed sides of the building, providing significant amounts of light spill onto the building.
- 5.1.3. No bats or signs of bats were identified in any of the rooms throughout the cellar, first, second floor or within the roof voids, although the building does provide a level of suitability for bats; albeit very low.
- 5.1.4. Based on the absence of bats or signs of bats during the building inspection and activity surveys, lack of habitat features likely to be used by bats for foraging and/or commuting surrounding the site and in line with Natural England guidance, it is considered that the potential for effects on bats during the demolition and redevelopment of the building is considered negligible.
- 5.1.5. Should any evidence of bats be found during the demolition works, works should stop immediately and an ecologist be consulted for further advice.

Birds

- 5.1.6. No evidence of black redstart was recorded during the survey period and the rooftop habitat is considered to offer poor suitability for this species as nesting habitat. No development constraints are noted in relation to this species.
- 5.1.7. Evidence of other common bird species was found around the building. As this activity was recorded during the breeding season, it is likely that common bird species such as pigeon and potentially house sparrow are nesting here. Should construction works be required within the breeding season (March to September inclusive), it is recommended that the building is inspected for presence of breeding birds. Should evidence of nesting be found, works should only proceed where damage to nests, eggs or the birds themselves will not occur. Where impacts on nests are likely, works should only proceed when it is confirmed by an ecologist/ornithologist that the nest is no longer in use.