



Bat Assessment
Preliminary Roost Assessment

of

Saville Lane
Thurlstone
Barnsley
South Yorkshire

for

Nationwide Structures Ltd

(15th February 2018)

2018-01(02)

PROTECTED SPECIES

This report contains sensitive information relating to protected species. The information contained herein should not be disseminated without the prior advice of Ecolocation.

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Report Version	Date	Author:	Quality check by:	Approved by:
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This report has been prepared in accordance with the CIEEM Guidelines for Ecological Report Writing Second Edition (2017) and is compliant with the CIEEM Code of Professional Conduct.

Summary

- An updated preliminary bat roost assessment was carried out at two buildings off Saville Lane, Thurlstone on Monday 12th February 2018 by a licensed bat surveyor.
- The proposed development included the demolition of both buildings and redevelopment of the Site to provide a new workshop building.
- A previous bat assessment was undertaken at the Site in 2014. The previous survey work consisted of a daytime initial walkover survey (preliminary roost assessment) and two bat activity surveys and found no evidence of roosting bats but identified potential for crevice dwelling bats and therefore recommended that demolition works be carried out under a watching brief by a licensed bat worker.
- As several years had passed since the original assessment, an updated preliminary roost assessment survey was carried out in February 2018.
- The sales purchasing building was in a very similar condition to that of the previous survey, with the building being generally well-sealed and offering low suitability for roosting bats.
- The old printing store had been further damaged by wind and rain, with numerous large holes in the roof, windows and doors allowing access to bats, but also resulting in rain, light and wind getting into the building, creating a cold, damp and draughty internal environment. This building was therefore now considered to offer low suitability for roosting bats.
- Both buildings surveyed offered low suitability for roosting bats; however, given the results of the previous dusk and dawn surveys in 2014 and updated day-time inspection results, additional summer surveys were considered unlikely to provide any information of material difference to the assessment of potential impacts on bats. The proposed works will involve demolition of both existing buildings to facilitate redevelopment of the Site to provide a new workshop building. This work is not expected to impact roosting bats or local bat populations either during demolition and construction or in the occupational phase.
- Nevertheless, potential use of the buildings by a single opportunistic bat in the future could not be ruled out. Therefore, the precautionary method of works as recommended in the original bat assessment report for the Site should still be implemented in order to ensure that protected species are safeguarded. Such methods are detailed in Section 5 of this report.
- The proposed development was not expected to impact on any habitats or species of principle importance. Additional recommendations are made within Section 5 of the report for measures to ensure that the demolition and construction works do not impact protected species such as nesting birds.

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1 Introduction

1.1 Instruction

Ecolocation were commissioned by Nationwide Structures Ltd to undertake an updated preliminary roost assessment of two buildings at Saville Lane, Thurlstone in South Yorkshire (hereafter referred to as the 'Site').

1.1.1 Previous survey work

A previous bat assessment was undertaken at the Site in 2014. The previous survey work consisted of a daytime initial walkover survey (preliminary roost assessment) and two bat activity surveys and found no evidence of roosting bats. This report should be read in conjunction with the previous report for the Site prepared by Ecolocation, reference 2014-05(03) Revision B, dated 20th November 2014).

1.1.2 Site location

The Site (grid reference SE 230 033) was located off Saville Lane in Thurlstone, South Yorkshire. The Site included two buildings: the sales purchasing office building and old printing store.



Figure 1: Survey boundary

1.1.3 Proposed Plans

The proposed plans for the new workshop, numbers 2017/JD/3C and 2017/JD/4, both dated 29/11/17, were used in the impact assessment and production of this report. It was understood that the proposed works would involve demolition of the existing buildings and erection of a new workshop building.

1.2 Survey Purpose

The purpose of the survey and report was to update the findings of the previous survey work in order to:

- Identify the suitability of the structures to support roosting bats
- Identify likely presence/absence of bat roosts at the Site
- Determine the need for any further bat surveys to inform a mitigation scheme or a bat mitigation licence
- If bat roosts are present, determine species, access and egress points, roost type and size
- Assess the impact of the proposed works on bats
- If bat roosts are present, provide details of a bat mitigation strategy to maintain the favourable conservation status of the bat species in question
- Determine the need for a bat mitigation licence from Natural England

1.3 Legislation & Planning Policies

A number of UK and European legislation and policies deal with the conservation of biodiversity. This section briefly outlines the legal and policy protection afforded to bats and their habitats.

Bats and their roost sites are protected under UK and European legislation including the Wildlife and Countryside Act 1981 (as amended), Countryside Rights of Way Act 2000, the Conservation of Habitats and Species Regulations 2010 and the Habitats Directive. The legislation makes it an offence for any person to:

- Deliberately capture, injure or kill a bat.
- Intentionally or recklessly disturb bats, where that disturbance may affect the ability of those bats to survive, breed, rear or nurture their young, or is likely to significantly affect the local distribution or abundance of any bat species, whether in a roost or not.
- Damage or destroy a place of shelter (roost) of a bat, be that a resting or breeding place.
- Possess a bat, whole or in part, alive or dead.
- Intentionally or recklessly obstruct access to a roost
- Sell or offer for sale or exchange whole or parts of bats, alive or dead.

All species of birds are protected from disturbance under the Wildlife and Countryside Act 1981 (as amended) from the time when they begin nest construction until all of the young have naturally fledged.

The ODPM Circular 06/05 makes the presence of a protected species a material consideration within the planning process. It states that it is essential for the presence of protected species and the extent they may be affected by proposed development be established through appropriate surveys before the planning permission is granted and encourages the use of planning conditions to secure the long-term protection of the species.

The National Planning Policy Framework (NPPF) section 11 sets out applications to conserve and enhance the natural environment. Paragraphs 109 and 118 of the NPPF state that net gains to biodiversity should be sought and encouraged and that net losses in biodiversity must be avoided.

The Barnsley Metropolitan Borough Council's adopted Core Strategy contains policy CSP 36 Biodiversity and Geodiversity. This sets out the expectation for development to conserve and enhance biodiversity features through measures including protecting and improving habitats and species and having regard to species and habitats of principle importance.

2 Methodology

2.1 Desk Study

Prior to the site visit a desk-top data gathering exercise was undertaken. The MAGIC website was accessed to search for statutory designated sites within a 2km radius of the Site. The South Yorkshire Bat Group was contacted for information on bat species records within a 2km radius of the Site.

2.2 Preliminary Roost Assessment

The Site was visited by suitably experienced and licensed surveyor Catherine Coton (Ecologist, ACIEEM, level 2 bat survey licence: 2017-31902-CLS-CLS) on Monday 12th February 2018. The survey took approximately 1 hour and weather conditions at the time of survey were recorded.

The daytime inspection was carried out in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition (BCT, 2016). The survey comprised two parts: an evaluation of suitability for roosting and a search for evidence of bats. The inspection was aided by a one million candlepower torch. On this occasion, an endoscope was not used as there were no gaps which could not be inspected using a torch from a ladder.

Bat evidence:

The interior and exterior of the building was systematically searched for evidence of bats including:

- Live or dead bats
- Droppings
- Staining from bat urine
- Feeding remains, such as moth wings
- An absence of cobwebs on suitable flight lines or access points

Evaluation of roosting suitability:

This comprised a detailed external and internal assessment of the building to determine the suitability for bats and the likely species, type of roost and numbers of bats the building could support. A number of factors were considered including:

- Surrounding habitats – connectivity for flight lines to the building and areas for foraging
- Internal light levels and temperature
- Weather-proof properties
- Building construction
- Potential access into the building (e.g. into a roof void, cavity in brickwork, between tiles and lining)
- Roosting features in roof void (e.g. roof timbers, ridge, wall plate)

Following a systematic survey of the building and consideration of possible factors each building was assessed as having negligible, low, moderate or high suitability for roosting bats, in accordance with the BCT guidelines.

2.3 Limitations

The survey was undertaken after overnight light snowfall, which partially obscured the external views of the roof slopes. It was therefore possible that gaps around roof tiles could have been obscured from view as the surveyor was ground based. In addition, the roof void of the old printing store was inaccessible during the survey as the wooden first floor ceiling and joists were rotting and deemed to be unsafe. This void was therefore inspected only from the loft hatch.

3 Results & Evaluation

3.1 Desk Study

3.1.1 Habitat Connectivity

The Site was located in the village of Thurlstone in South Yorkshire, with the River Don and its associated semi-natural habitat along the valley providing good opportunities for foraging and commuting bats. Several small pockets of woodland and waterbodies were present within a 2km radius of the Site, which were likely to provide optimal foraging habitat for a range of bat species. These areas were connected to the Site by the river corridor and a network of hedgerows in the wider landscape; however, the well-lit residential areas of Thurlstone near to the Site would likely pose a dispersal barrier to more sensitive bat species such as brown long-eared and *Myotis* species bats.

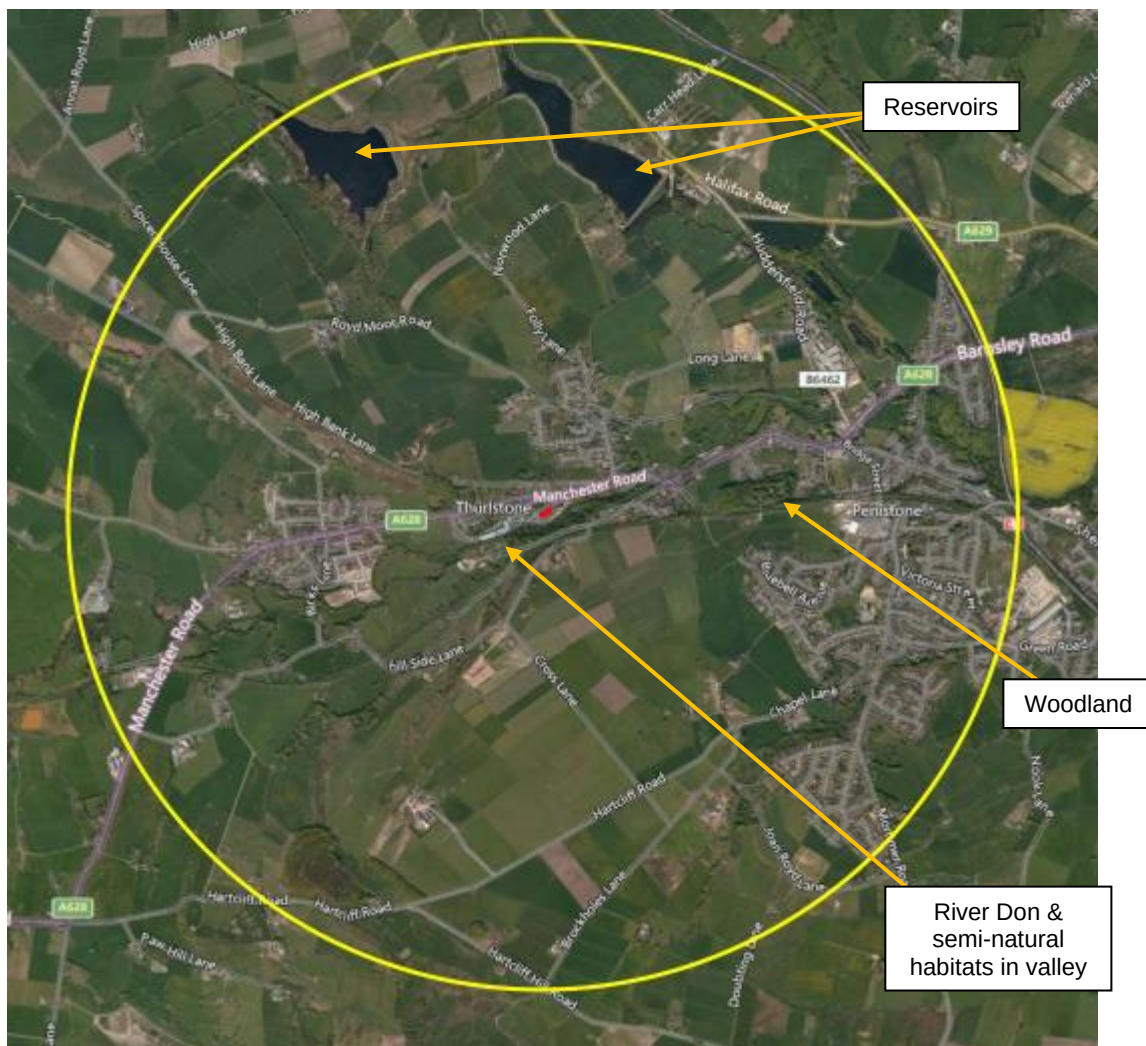


Figure 2: Habitat connectivity features within a 2km radius of the Site

3.1.2 Bat Records

There were numerous records of bats within a 2km radius of the Site, including several known roosts of pipistrelle species bats within residential dwellings, with the closest known roost a mitigation roost consisting of integrated bat boxes on a building to the east of the survey area, which was thought to be used by pipistrelle species bats. Other species recorded in the area included noctule, whiskered, Brandt's, brown long eared and indeterminate *Myotis* species bats.

3.2 Preliminary Roost Assessment

3.2.1 Weather

The weather conditions during the Site visit on Monday 12th February 2018 were as follows:

Table 1: Weather conditions during site visit

Parameter	Recorded Figure
Temperature	4°C
Cloud cover	50%
Precipitation	None
Wind speed (Beaufort scale)	3 – gentle breeze

3.2.2 Old printing store

The old printing store was a two-storey gabled building, which was in a state of disrepair and was unused except for storage. The eastern gable wall was stonework, with the remainder of the building constructed in brickwork, with render on the northern elevation. The roof was finished in slate tiles with concrete ridge tiles and open eaves. The roof was unlined, and a large roof void extended across two thirds of the roof, with the eastern third open to the roof with no separate void. There were numerous large holes in the roof, allowing wind and rain into the building and the wooden ceiling under the roof void was rotting.



Western elevation



Southern elevation



Northern elevation



Eastern elevation

The roof was unlined and the numerous holes in the roof, windows and doors offered multiple opportunities for bats to enter the building, where they could fly through and access every room. However, the gaps also allowed in water

and light and resulted in a cold, draughty and lit interior, which was likely to be changeable in different weather conditions, reducing its suitability for roosting bats.



Large holes in roof allowing light and water into void



Eastern section open to roof and unlined

Internally, small gaps were present at the joins between ceiling joists and purlins and the walls and there were small cracks in the brickwork in places, which all provided shallow crevices suitable for roosting bats. All of the gaps found were inspected with a torch and found to be very heavily cobwebbed, suggesting that they had not been used by bats recently. Whilst the cold, damp conditions of the building would be favourable for hibernating bats, all of the gaps found internally were considered too exposed to the external conditions to provide a stable environment for hibernation.



Cracks in brickwork filled with cobwebs



Gaps around joists filled with cobwebs

No evidence of bats was found during the survey, although a thorough search of the roof void was not possible due to the rotten condition of the first floor ceiling. Several butterfly wings were found scattered on the floor in the western end of the first floor, however, no bat droppings were found and a number of these were under furniture, suggesting that they were more likely to be spider foraging remains than from bats.

The building was considered largely unsuitable for summer roosting bats due to its derelict condition and exposure to external weather conditions. Several small gaps within the building did offer shelter for single bats, with possibility for hibernation, however, thick cobwebs suggested that these features were not in use at the time of the survey. Although this building was previously assessed as offering 'medium' bat roost suitability, it had since been further damaged by wind and rain, leaving fewer opportunities for bats to shelter and make use of the building. Overall, the building was assessed as offering low suitability for roosting bats.

An inactive swallow nest was noted on a ceiling joist in the first floor room of the building.

Suitability for roosting bats: LOW

3.2.3 Sales purchasing offices

This building was a two-storey gabled building with a flat-roofed stairwell extension on the northern elevation. It had previously been used as offices but had been redundant for some time. The walls were constructed in a mix of stonework and brickwork with render on the northern elevation. The roof was finished in slate tiles with concrete ridge tiles. The flat-roofed extension was finished in bitumen felt. The roof was split into two separate voids, with a maximum of 1m height between ceiling and apex. The voids were supported with modern attic trusses, creating a cluttered internal space, with bituminous felt lining to the underside of the roof and rockwool-type insulation at ceiling level.



Western elevation



Southern elevation



Northern elevation with flat-roofed extension



Eastern elevation

The previous survey identified a single gap beneath a lifted tile on the southern elevation, with the building otherwise considered to be well-sealed. This updated survey found the building to be well-sealed, although it was possible, given the snow cover, that gaps between the tiles and lining could have been missed. However, the lining was noted to be tightly fitting to the underside of the roof, with no sagging or torn areas, which reduced the likelihood of any gaps between the slates and the lining being big enough for bats to use for sustained roosting.

The window and door frames, eaves and gable verges all appeared to be well-sealed or blocked by guttering, offering no apparent access points for bats.

Internally, the office rooms offered no opportunities for roosting bats and there were no apparent gaps providing access into the roof voids, which were thoroughly searched.



Small, well-sealed roof void

No evidence of roosting bats or nesting birds was found in this building during the survey.

Overall, this building was still considered to offer low suitability for roosting bats due to the well-sealed, small roof voids and limited opportunities for bats to ingress the building. It was likely that the small number of gaps in the tiles found during the 2014 survey were still present, offering at most one or two opportunities for single crevice dwelling bats.

Suitability for roosting bats: LOW

4 Discussion & Conclusions

A previous assessment of the buildings on Site in 2014 identified potential for roosting bats, with the old printing store offering 'medium' suitability and sales purchasing building offering 'low' suitability for bats. Subsequent dusk and dawn bat activity surveys carried out in early September 2014 found no evidence of bats roosting within the buildings and a relatively low level of bat activity across the Site. A single inactive swallow nest was found in the old printing store building. The 2014 survey concluded that the buildings were unlikely to be used by roosting bats and recommended a precautionary approach to demolishing the buildings to ensure that protected species would be safeguarded.

As several years had passed since the original assessment, an updated preliminary roost assessment survey was carried out in February 2018. This found that the sales purchasing building was in a very similar condition to that of the previous survey, with the building being generally well-sealed and offering low suitability for roosting bats. The old printing store had been further damaged by wind and rain, with numerous large holes in the roof, windows and doors allowing access to bats, but also resulting in rain, light and wind getting into the building, creating a cold, damp and draughty internal environment. The worsened condition meant that the building was therefore considered to provide low suitability for roosting bats. In particular, the old print store building was unlikely to support a summer bat roost due to the unstable internal conditions and the thick cobwebs in all suitable gaps suggested that the building was not in current use by hibernating bats.

Both buildings surveyed offered low suitability for roosting bats. Given the results of the previous dusk and dawn surveys and updated day-time inspection results, a further level of survey was considered unlikely to provide any information of material difference to the assessment of potential impacts on bats.

The proposed works will involve demolition of both existing buildings to facilitate redevelopment of the Site to provide a new workshop building. This work is not expected to impact roosting bats or local bat populations either during demolition and construction or in the occupational phase.

Nevertheless, there are known roosts nearby and a suitable wildlife corridor to the south of the Site, and as such potential use by a single opportunistic bat in the future could not be ruled out. Therefore, the precautionary method of works as recommended in the original bat assessment report for the Site should still be implemented in order to ensure that protected species are safeguarded, and such methods are detailed in Section 5 of this report.

Incidental evidence of previous nesting by swallows was noted in the old print store building, with a single inactive nest identified. A nesting bird check should be undertaken immediately prior to works to ensure there are no birds in the process of nest-building, egg-laying or chick-rearing within the barn when any disturbing works begin. The proposed demolition of the buildings will result in the loss of this single nest site, which is not considered to be a significant loss to this species in the locality.

The habitats immediately surrounding the buildings, within the area to be redeveloped to provide the workshop, remained the same as that found during the 2014 survey, including unmanaged gardens and stone walls. These habitats were widespread and common in the locality and therefore not considered to be of any importance and as such the loss of these habitats would not be significant. However, there was potential for common amphibians and mammals to pass through or shelter within these areas and works must be carried out sensitively to minimise the risk of harm to individuals, as detailed within Section 5 of this report.

5 Recommendations

The National Planning Policy Framework paragraph 117 states that “To minimise impacts on biodiversity and geodiversity, planning policies should....promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations”. In order to ensure no nett loss of biodiversity in accordance with NPPF & Circular 06/2005 recommendations are made below:

5.1 Bats

No further survey work in respect of bats is recommended at this stage. However, following the survey work, there remains low suitability for roosting within the two buildings to be demolished by crevice-dwelling bat species. It is therefore recommended that the initial demolition works target areas with suitability for bats and are carried out under **a watching brief by a licensed bat worker**.

The watching brief will be preceded by a **toolbox talk** to all contractors.

Old printing store

The licensed bat worker will inspect all suitable gaps in the brickwork and timbers in the old printing store with an endoscope immediately prior to disturbing works. The licensed bat worker will then supervise the removal of tiles at the ridge, gable ends and eaves. If evidence of bats, including droppings, is found works will stop while Natural England are contacted for advice on how to proceed.

Sales purchasing building

The licensed bat worker will supervise the removal of tiles at the ridge, gable ends and eaves and any areas of raised tiles providing access to a gap between the tiles and lining. If evidence of bats, including droppings, is found works will stop while Natural England are contacted for advice on how to proceed.

Mitigation for bats will be necessary if evidence of bats is found during works. As the buildings have only low suitability for crevice-dwelling species, an appropriate replacement roost site, if necessary, would involve installing a bat box on an appropriate tree or building, to be advised by the licensed bat worker.

Any proposed **lighting** both during works and permanent lighting following completion of the development should be **cowled** to prevent backspill and light should be directed towards the ground and away from potential bat foraging, commuting and roosting areas such as the River Don corridor to the south, and any nearby retained trees. Ideally, sodium-based light bulbs should be used as these emit lower levels of UV light and are therefore less disruptive to nocturnal wildlife.

5.2 Birds

The Site should be surveyed for presence or likely absence of nesting birds immediately prior to commencement of work by a suitably qualified ecologist and due vigilance must be maintained during construction. Should evidence of active nests be found, works must avoid disturbing the nest until all the young have naturally fledged under the advice of a suitably qualified ecologist.

5.3 Other Protected and Priority Species

Due vigilance should be maintained throughout the development, particularly during any clearance of the overgrown gardens and stone walls. Should any non-protected species, such as common amphibians, hedgehogs or small mammals be found, these should be carefully moved, by hand, to an area left undisturbed by the works. Should evidence of protected species, such as great crested newts or reptiles, be found during works, works should temporarily stop while a suitably qualified ecologist is contacted for advice on the best way to proceed.

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