PLANNING DESIGN ENVIRONMENT

Macclesfield Old Road
Buxton
Favourable Conservation Status of Bats
Method Statement

TEP Report Ref: 4132.01.003
March 2016
Version 1.0

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1.0 INTRODUCTION

1.1 TEP was commissioned by Persimmon Homes to produce a method statement to take account of bats on a site known as Macclesfield Old Road, Buxton.

1.2 The site is centred at grid reference SK 036 723, within the rural area of Buxton, Derbyshire.

1.3 TEP has undertaken an extended Phase 1 habitat survey of the site and a preliminary daytime external and internal survey of the building, carried out by licensed bat surveyor John Crowder (Registration number: 2015-10700-CLS-CLS) of the Macclesfield Old Road site.

1.4 There are five buildings on site which have been assessed in terms of their potential to support roosting bats with due consideration of Bat Conservation Trust (BCT) Guidelines 2016. No bats or evidence of bats were found during daytime external and internal inspections of the buildings. Three buildings on site; 1, 4 and 5 have been assessed as having high potential to support roosting bats. The other two buildings on site; 2 and 6 have been assessed as having negligible potential to support roosting bats. There are five trees on site that have been assessed in terms of their potential to support roosting bats with due consideration of BCT Guidelines 2016. Two trees have been assessed as having high potential but these are to be retained based on current site proposals. Eight trees have been assessed as having low potential to support roosting bats. The status of three trees is currently undetermined.

1.5 The location of the buildings and trees is set out at Drawing G4132.01.001. Descriptions of the buildings, including photographs, are provided at TEP Report ref 4132.01.002 Appendix 1.

1.6 The proposals for the site include demolition of all five buildings and redevelopment of the site for residential development. Current proposals show two trees that are currently undetermined in terms of roost status are also to be lost.

1.7 Surveys by Nlg Ecology Limited during 2008, revealed non-maternity common pipistrelle *Pipistrellus pipistrellus* roosting in building 1 and myotis sp (whiskered *Myotis mystacinus* /Brandts *Myotis brandti*) in building 5 during evening surveys. Droppings of common pipistrelle and possibly brown long eared bats *Plecotus auritus,* were found during subsequent daytime surveys in building 1 in 2012 by Nlg Ecology. Dusk and dawn surveys of the five buildings across the site by Nlg Ecologyduring 2013 did not reveal any evidence of roosting bats.

1.8 From the previous survey information gathered by Nlg in 2008 and 2012 and 2013, the species confirmed to be present on site include non-maternity of common pipistrelle in building 1 and a myotis sp (whiskered /Brandts in building 5.

1.9 The daytime surveys carried out by TEP during 2015 are an update to the previous surveys during 2008, 2012 and 2013. Conditions on site have not changed from the previous surveys.

1.10 In terms of the age and validity of the survey data, with due consideration to the Bat Conservation Trust (BCT) Guidelines 2016. Section 2.6.3- 'Age of survey data' states:

1.11 *"Ideally, the survey data should be from the last survey season before a planning or licence application is submitted, although often data older than this can have considerable value, particularly where collected over a number of years using different techniques. The value of data should be considered when updating surveys as it may not be necessary to start from scratch".*

1.12 The guidelines also state "that the length of time survey data remains valid should be decided on a case-by case basis and is dependent on a number of questions;

- *Were the original surveys carried out according to good practice guidelines?* The previous surveys were undertaken in line with good practice guidelines.
- *Were the original surveys constrained in any way?* There were no limitations to the surveys.
- *Are the results of the previous surveys still relevant?* Yes they point to the site overall being used by mainly common pipistrelle with occasional use by myotis and brown long eared bats.
- *Has the nature of the site altered since the original surveys?* The site has not changed since previous surveys.
- *Are additional surveys likely to provide information that is material to a decision i.e. planning consent?* Due to the information gathered from previous surveys, additional surveys will not provide any further information both in terms of the species and type of roost on site.

1.13 This method statement has been prepared to set out the survey and mitigation measures to be taken prior to works commencing, including demolition of the buildings, to prevent killing/injury of bat(s) or destruction of a bat roost. It aims to demonstrate to the council that there would be no detrimental impact on the status of the local bat population from the proposed works. It also sets out mitigation measures to be incorporated into the new development to provide roosting habitat for bat species which may use the site.

1.14 Prior to demolition, those buildings assessed as having high potential for roosting bats will require dusk/dawn emergence/re-entry surveys during the survey season (mid May to August), with reference to BCT Guidelines 2016. These surveys will be undertaken to provide information for a future Natural England application and it is not anticipated that anything will change in terms of the species and roost status on site. For those trees currently down for removal, two trees are currently undetermined will require aerial inspections prior to felling.

1.15 This method statement is prepared to support the planning application for the development of housing and demonstrate compliance with legal obligations regarding bats.

Development proposal

1.16 The proposed development layout is set out at Drawing MOR/SAD/REP1. The proposals include demolition of the existing buildings and re-development of the site with private residential properties.

2.0 BACKGROUND

2.1 There are five buildings on site. There is pre-existing information indicating that bats have previously roosted in some of the buildings on site. Records from Nlg Ecology Limited revealed common pipistrelle Pipistrellus pipistrellus roosting in building 1 and myotis sp (whiskered *Myotis mystacinus* /Brandts *Myotis brandti*) in building 5 during evening surveys in 2008. Droppings of common pipistrelle and possibly brown long eared bats were found during daytime surveys in building 1 in 2012. No evidence of roosting bats was found during dusk and dawn surveys of the buildings in May, June and August 2013.

2.2 Detailed inspection of the buildings was undertaken on the 29th October 2015 by licensed bat TEP ecologist John Crowder (Registration number 2015-10700-CLS-CLS). External and internal surveys of all five buildings on site was undertaken. A ground based assessment of trees on site was also undertaken.

2.3 The survey results are detailed in TEP report 4132.01.002. No bats or evidence of bats were found during the inspections. Three buildings on site, buildings 1, 4 and 5 are assessed as having high potential for roosting bats. The remaining two buildings on site, 2 and 6 have been assessed as having negligible potential to support roosting bats.

2.4 For those trees currently down for removal, two trees have been assessed as having high potential but these are currently to be retained. Eight trees have been assessed as low. The status of three trees is currently undetermined.

2.5 For the trees assessed as having undetermined roost status, aerial inspections of the trees will be required. Paragraph 6.3.1, page 21 of the Bat Conservation Trust Guidelines 2016 states that aerial inspections are useful to look for bats and evidence of bats and that aerial inspections are useful to prevent un-necessary dusk or dawn surveys. This is considered to appropriate for the two trees in case at this site that are to be removed. The location of these trees is set out at Drawing G4132.01.001A. Both these trees require further inspection to fully ascertain if these trees have suitable roosting features for bats. If the trees do have features for bats then dusk and dawn surveys between months of May and August will be required.

2.6 Nocturnal emergence surveys will be required of the three buildings assessed as having high potential. These surveys will be undertaken to support a Natural England application. It is not anticipated that anything will change in terms of the species and roost status on site.

2.7 The surveys will need to be undertaken during the survey period of mid-May to August.

3.0 IMPACTS IN THE ABSENCE OF MITIGATION

3.1 In the absence of mitigation, the demolition of Building 1 and 5 will result in the permanent loss of a non-maternity summer roost of low numbers of crevice dwelling bat species (common pipistrelle in building 1 and myotis sp (whiskered Myotis mystacinus /Brandts Myotis brandti) in building 5, and injury or death of low numbers of bats during the removal of potential roosting features. Due to the roost type and species involved this is considered to be a 'Low impact at local level' (English Nature Bat Mitigation Guidelines, figure 4, page 39). The loss of these types of roosts can be easily mitigated by the incorporation of suitable roosting features and bat boxes into the new build.

Initial Impacts

3.2 Works associated with the demolition will temporarily increase human presence at the site and increase noise and vibration levels resulting in temporary disturbance to bats within both buildings 1 and 5. As the site is a current dwelling and subject to relatively high levels of disturbance on a regular basis, this is considered to have a 'Low negative impact at site level.

3.3 Mechanical demolition of buildings 1 and 5 or the unsupervised removal of soffits and roof slates by contractors could potentially injure or kill common pipistrelle bats using the building for occasional roosting. This is considered to be a 'Major negative impact at a site level'.

Long term Impacts – Roost Loss

3.4 Demolition of buildings 1 and 5 will result in the loss of a non-maternity transitional roost of common pipistrelle and myotis sp (whiskered Myotis mystacinus /Brandts Myotis brandti). This is considered to be a 'Minor negative impact at site level' for both species.

Long term impacts – Fragmentation and isolation

3.5 The development of the site will also result in the loss of some suitable foraging and commuting habitat due to removal of some trees across the site. However, no significant impacts are predicted as sufficient tree lines will be retained to ensure no disruption to bat foraging and dispersal.

Long term impacts – Post development Impacts

3.6 Directional sensitive lighting strategy as part of the new development so to not spill unto any roost features or foraging habitat across the newly developed site.

Overall predicted scale of impact

3.7 Destruction of one roost with low conservation significance (low numbers of common and widespread species). The overall scale of impact is considered to be 'low at local level'.

3.8 Destruction of one roost with low conservation significance (low numbers of a less common species). The scale of this impact is considered 'low at local level'.

3.9 The reasonable avoidance measures, mitigation measures and enhancement proposals outlined in Sections 4, 5 and 6 of this report will ensure there will be no significant impact on the local bat population as a result of the development of the site.

4.0 FURTHER SURVEYS AND REASONABLE AVOIDANCE MEASURES

4.1 This section of the document details additional surveys and the working methods that will be required prior to and during works.

Nocturnal survey of buildings

4.2 During the survey window, three dusk emergence or three pre-dawn re-entry survey must be undertaken of buildings 1, 4 and 5 i.e. those with high potential. The surveys must be undertaken in accordance with the Bat Conservation Trust Guidelines and by suitably experienced surveyors. This information will be used to inform any future Natural England licence application and it is not anticipated that anything will change in terms of the species and roost status on site.

Aerial inspection of trees

4.3 The trees assessed as un-determined (location set out at Drawing G4132.01.001A) will require aerial inspections to ascertain fully roosting potential. If the trees do have potential for bats then dusk and dawn surveys between the months of May and August will be required.

Tool box talk

4.4 Prior to any works, all contractors must be inducted by a licensed bat ecologist. This will comprise a toolbox talk on bats and best practice measures to implement if a bat is encountered at any stage.

5.0 MITIGATION AND COMPENSATION

5.1 Although the site was not found to support roosting bats as a result of the daytime inspections in 2015, three of the buildings (1, 4 and 5). Common pipistrelle have previously been confirmed roosting in building 1, myotis sp (whiskered Myotis mystacinus /Brandts Myotis brandti) in building 5 with evidence of brown long eared also in building 1.

Crevice dwelling species

5.2 Net roost habitat availability should be maintained within the site following redevelopment works. As the buildings will be demolished and therefore cannot be retained, the roosting opportunities they provide should be replicated as part of the proposals.

5.3 It is therefore recommended that three Schwegler 2FR interlinking bat tubes should be installed within three buildings on site. The Bat Box Plan (drawing G4132.01.002B) shows the location of these bat tubes on the proposed development. The tubes will be installed at various elevations to provide a range of roosting conditions for bats.

Brown long eared bats

5.4 Net roost habitat will be incorporated into the new build (garages) on site and in close proximity to the location of the two existing buildings 1 and 5.

5.5 The roosting measures will include the provision of loft voids to be a minimum of 2m deep. Each void will be sectioned off with wooden boards to prevent public access and have a hatch for access for future monitoring. Roof access tiles will be installed in the roof of these buildings to allow bat access into the loft void (also shown in drawing G4132.01.002).

5.6 A sensitive lighting strategy is required to ensure light spill does not fall onto retained or created features intended for use by bats. The Strategy applies during both construction and operation and will address four design principles.

- Use of unnecessary lighting will be avoided. This applies to both existing and proposed habitat features.
- Spatial spread of lighting – the horizontal and vertical spread of artificial light should be minimised, and take into account both primary and reflected light sources. Directional lighting can be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.
- Timing and duration of lighting – timers and bespoke dimming regimes may be used to ensure that luminaires are reduced at times of predicted low use. These can be set to change with the seasons and therefore reflect the shifting time of dusk and dawn throughout the year. Motion sensors provide further control to ensure that areas are illuminated only when required.
- Intensity and colour of lighting – light intensity should be designed to be as low as possible whilst meeting the objectives of the intended function. The colour of lighting will need to take into account the sensitivity of the ecological receptors on site. Light sources selected should emit zero ultra-violet light wherever possible. Interim guidance from the Bat Conservation Trust (2014) recommends that white and blue spectrum light should be avoided or where white lights are required these should be of warm/neutral colour and peak higher than 550nm. Narrow spectrum light sources are used (to lower the range of species affected by lighting).

6.0 OPPORTUNITIES FOR ENHANCEMENT

Bat tubes and bat boxes

6.1 Purpose built bat boxes can provide additional roosting opportunities for the local bat populations. One 1FR Schwegler bat tube and five 1FQ Schwegler external bat boxes must be installed as per the Bat Box Plan (G4132.01.002) to enhance the roosting opportunities within the site post-development. The bat tubes are self-contained units, which are low maintenance (self-cleaning). These bat boxes provide additional enhancement measures to those set out in chapter 5 mitigation and enhancement.

Roof voids

6.2 Potential access points for bats could be provided into the roof spaces of new build properties, which allow bats to roost in the crevice between the roofing tiles and the underlining. This can be achieved by lifted roof tiles or ridge tiles which create a gap of approximately 15-20mm that can be accessed by bats. Examples are provided in Appendix 2.

6.3 The use of breathable roofing membrane (BRM) should be avoided. Another material favourable for roosting bats should be used or no roof lining should be used at all.

6.4 A dry ridge system could be employed along the ridges of the new buildings to provide roosting space between ridge tiles and ridge beam. Bat access could be provided to these cavities by provision of ridge tile ventilators (with the mesh removed) or by clipping occasional tiles to provide a small access slot. Provision of such slots will not be detrimental to tile security or function (i.e. weatherproofing).

Tree roost features

6.5 To compensate for any loss of trees suitable to support roosting bats, six bat boxes including (one Schwegler 2F, one Schwegler 1FD, one Schwegler 1FS hibernation box) will be put up on suitable and retained trees on site. The bat boxes will be put three to a tree, one south west, one south east and the other north to provide different roosting conditions for bats. The location of the bat boxes is set out at Drawing G4132.01.002.

6.6 Examples of some of the measures discussed above are illustrated in Appendix 2.

Foraging and commuting habitat

6.7 The landscaping proposals for the site have the opportunity to increase the attractiveness of the site to foraging bats. The private gardens have been spatially arranged to maximise the total habitat patch size and thus potential foraging areas. Wildlife friendly gardening practices should be encouraged to promote the patch as a stepping stone to the wider landscape, such as planting night-scented plants and installing green trellising.

7.0 REFERENCES & FURTHER READING

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