

# Eric Bennett Consultancy Ltd

---

Protected species survey and advice

5 Lynwood Drive, Carlton, Barnsley. S71 3ES

Tel: 01226 723220

Fax: 01226 700998

E-mail: [eric.bats@uwclub.net](mailto:eric.bats@uwclub.net)

## **Needlewood, Keresforth Hill Road Barnsley**

### **Report of Bat Survey**

July 2008.

Report of Bat Survey  
Needlewood, Keresforth Hill Road, Barnsley

**1 Introduction**

- 1.1 The survey was required in connection with proposals for the redevelopment of the site for residential purposes. The site was located on Keresforth Hill Road at O.S. Grid Reference SE 328051.

**2 Details of work proposed**

- 2.1 The Needlewood Children's Home has been deemed to be unsuitable in meeting the requirements of a modern day care home facility and a new purpose built Children's Home has been constructed nearer to the Barnsley town centre. A Development Brief has been drafted in consultation with Barnsley Planning Department to assist the sale of the site by Barnsley Social Services for residential use and highlights to any prospective buyer/developer the need to provide exceptional circumstances to justify planning consent for residential use.
- 2.2 It must be noted that in the event that exceptional circumstances are not forthcoming, this would represent a departure from Green Belt Policy and Barnsley Planning Department would be forced to recommend the refusal of the redevelopment of the site for residential purposes. As a new build residential development would represent a departure from the Green Belt policies in the Barnsley UDP, the application will be need to be referred to the Government Office for Yorkshire and Humber (GOYH) for the final decision.
- 2.3 The initial survey was carried out on the basis of a proposed scheme for the demolition of the existing building and the construction of new apartments on the same footprint. Subsequently revised proposals which will affect some trees around the building footprint and the effects of this have been considered in this updated report.

**3 Background to the special protection afforded to bats under UK and EC legislation.**

- 3.1 Bats are highly specialised creatures and require a relatively narrow range of suitable conditions in order to sustain a viable population. Bats require an abundant supply of flying insect food in places where they can easily be caught and they need safe and reliable roosting sites, particularly during breeding and hibernation.
- 3.2 Bats are heavily dependent on buildings and trees for their roost sites and, therefore, extremely susceptible to disturbance from human activities ranging from simple maintenance work through major conversion and renovation schemes to building demolition. Development schemes can also isolate bat populations and sever roost sites from favoured feeding areas, by removing hedgerows and trees that bats use as commuting routes.
- 3.3 Bats are susceptible to disturbance and have been known to abandon roosts sites after instances of disturbance. The effects of disturbance are more pronounced at different times of year. Serious disturbance during breeding can result in the breeding females being killed or the abandonment and subsequent starvation of dependent young. Repeated disturbance during winter hibernation can result in the death of adult animals from starvation.
- 3.4 The level of protection afforded to bats in UK and European legislation reflects the fact that it is now generally accepted that bats have declined substantially, maybe by as much as 60% over recent years. Most species are declining and vulnerable and all are protected.

#### **4 Details of Survey**

- 4.1 Daytime and dusk emergence survey by a single surveyor.

#### **5 Methodology for the survey**

- 5.1 A detailed internal and external inspection of the building was carried out to identify potential roost sites and access points and any signs of actual occupation such as droppings, discarded moth wings, staining etc.
- 5.2 Ground level inspection of trees to identify any potential roosting crevices and signs of use by bats.
- 5.3 Dusk emergence and activity survey.
- 5.4 Assessment of site and surrounding habitats.
- 5.5 Search of existing bat roost records.

#### **6 Description of habitats**

- 6.1 The site was located on the western edge of the built-up area overlooking the M1 Motorway and with open countryside to the south. The site contained significant mature tree cover which is to be retained and was adjacent to a small woodland block.

#### **7 Results of daytime survey**

- 7.1 The initial survey was carried out on 31 October 2007.
- 7.2 The site comprised a large house previously used as a Local Authority Children's Home. The main roof of the building was oriented approximately east west with a rear wing facing north. The walls were generally pebble-dash rendered with overhanging eaves and boarded soffit. The soffit/wall joints appeared to be mostly sealed by the render. The roof was covered with small clay tiles.
- 7.3 The western gable was smooth painted render with hanging tile cladding to the apex. Two patches of bat droppings were found on the wall face each side of the loft window and further droppings were found on the roof of the conservatory close to the wall face. These are shown on Fig 1. The droppings were identified as Pipistrelle bat, probably Common Pipistrelle and indicated the likely presence of a summer breeding roost.
- 7.4 A small number of droppings were also found on hanging tiles below the soffit on a bay window at the south-east corner of the building. These were also Pipistrelle and likely to involve a single bat, probably a male roost. The location is shown on Fig 1.
- 7.5 Internally the loft was open and accessible for survey. The roof was supported on a steel frame. The ridge in the main roof was approximately 3 metres high and the rear wing 1.8 metres. The ridge in both sections was very cobwebby indicating that bats were unlikely to be present. The eaves were sealed with chicken wire presumably to exclude birds. Large glazed windows were present in both gables. No signs of droppings or discarded insect remains were found.
- 7.7 A range of low outbuildings/garages at the rear appeared unsuitable for bats.
- 7.8 A tree survey was not specifically requested but a general walk round inspection was made. Many of the trees, particularly along the rear field boundary including Ash, Beech and Sycamore trees showed stem wounds and splits likely to provide potential roosting cavities for

bats. A dead stump in the same area showed extensive woodpecker activity. Old woodpecker holes are used by bats and small birds for nesting.

## 8 Results of dusk survey

- 8.1 A dusk survey was carried out on 4 July 2008. Weather conditions were good with mostly clear skies at first thickening later and calm. The temperature was 17°C at 21.30.
- 8.2 Prior to dusk all elevations of the building were checked with binoculars for signs of droppings. None were found. Since the initial survey the building had clearly suffered extensive vandalism with lead flashing removed from the roof, disturbed roof tiles, broken windows etc.
- 8.3 Trees likely to be affected by the latest proposals were reviewed prior to dusk and it was concluded that none of these were likely to have any impact on bats.
- 8.4 No emergence was recorded from the building. The first bat, a Common Pipistrelle was recorded feeding over trees to the east of the house at 21.47. Two bats were in the same area at 22.00. Several bats were present around the eastern gable at 22.05 making touch and go approach flights, momentarily alighting each time on the fascia at the apex. No activity at all was recorded round the western gable where the main droppings were found previously.
- 8.5 All these animals had moved away by 22.15 and no further activity was recorded.

## 9 Existing local records

- 9.1 The following records of bat roosts are known from the locality.

|                      |          |          |           |             |    |          |                          |
|----------------------|----------|----------|-----------|-------------|----|----------|--------------------------|
| Ratton Row           | Dodworth | House    | SE 313049 | Pipistrelle | 29 | 24/06/94 | Probable maternity roost |
|                      |          |          |           |             | +  |          |                          |
| Strafford Walk       | Dodworth | House    | SE 318048 | Pipistrelle | 20 | 14/07/99 | Probable maternity roost |
| Strafford Walk       | Dodworth | Bungalow | SE 314048 | Pipistrelle | 25 | 30/05/97 | Probable maternity roost |
| St. Johns Close      | Dodworth | House    | SE 311050 | Pipistrelle | +  | 12/07/01 | Probable maternity roost |
| Farrow Close         | Dodworth | House    | SE3205    | Indet       | +  | 26/10/04 | Unknown                  |
| Rockley Engine House | Rockley  | Ruin     | SE338021  | Natterers   | 30 | 01/08/96 | Maternity roost.         |

## 10 Protected species legislation

- 10.1 Bats and their roosts are fully protected at all times (whether the bats are currently present or not). This protection comes from the Wildlife & Countryside Act 1981 (updated by the Countryside & Rights of Way Act 2000) and the Habitats Regulations 1994 (updated by the Conservation (Natural Habitats) (Amendment) Regulations 2007). Under this legislation it is an offence to intentionally or recklessly kill, injure, capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.
- 10.2 Under the habitats regulations, where bats may be affected by development proposals, a licence is required from Natural England. Published guidelines on the licence procedure indicate that if, on the basis of survey information and specialist knowledge of the species concerned, the proposed activity is **reasonably likely** to result in an offence then, a licence is required. If, on the other hand the proposed activity is **reasonably unlikely** to result in an offence, then a licence is not required.

## 11 Evaluation of survey results

- 11.1 The initial survey in October 2007 confirmed the presence of a bat roost in the building. The evidence suggested that the roost was of Pipistrelle bat, probably the Common Pipistrelle and that the roost was likely to be a summer breeding roost. The main roost site appeared to be located behind hanging tile cladding on the western gable with a smaller, probably single male roost behind tiles at the bay window on the south-east corner of the building. This evaluation carried out after the natural dispersal of the summer roost, was based on the droppings found.
- 11.2 A follow-up dusk emergence survey, carried out during the peak of the breeding season in July 2008, found no signs of current occupation but behaviour was recorded consistent with a roost being present but currently unoccupied. This activity was, however, round the eastern gable and not the western gable as previously described.
- 11.3 Changes like this are not unusual with bats and Common Pipistrelle bats in particular are particularly prone to move around between roost sites and is often seems to be triggered by changes in the weather particularly around spells of hot weather.

## 12 Site & species status assessment

- 12.1 The initial assessment was for the probable location of a summer breeding roost of Common Pipistrelle bats in the west gable, located behind hanging tiles.
- 12.2 Following the dusk emergence survey in June 2008, it is still considered that a maternity roost has been present but that the closure of the building and the cessation of heating has resulted in the abandonment of the roost by the bats. This is not unusual and has been encountered a number of times on very similar projects. It is likely considered that the eastern gable is also used as a roost.

## 13 Assessment of Impacts

| Development effect                                                    | Scale of Impact |        |      |
|-----------------------------------------------------------------------|-----------------|--------|------|
|                                                                       | Low             | Medium | High |
| Destruction of roost site                                             |                 |        | +    |
| Temporary loss of roost site during building works.                   | +               |        |      |
| Modification of roost site                                            | +               |        |      |
| Risk of entombing bats during building work                           | +               |        |      |
| Risk of killing/injuring bats during roof stripping                   |                 | +      |      |
| Temporary disturbance from building works during breeding season      | +               |        |      |
| Temporary disturbance from building works outside the breeding season | +               |        |      |
| Post development interference                                         |                 | +      |      |

## 14 Mitigation guidelines

- 14.1 Mitigation is required to avoid or reduce the impact of development proposals on the population of bats present, either roosting or feeding. Licences are normally required where a roost site is threatened in some way by a scheme, but might also be necessary where the viability of a roost is threatened by the removal of the availability of crucial feeding habitat.
- 14.2 Natural England in their published guidelines (Bat Mitigation Guidelines Jan 2004) defines the key principles involved. i.e. **Mitigation** involving changes to the scheme or altering the timing of work to reduce or remove impacts and **Compensation**, the creation of new replacement roosts or habitats.
- 14.3 Natural England also require mitigation/compensation to be proportionate to the size of the impact and the importance of the population affected and as a principle:

- There should be no net loss of roost sites and that compensation should provide an enhanced resource since the adoption of new roost sites by bats is not guaranteed.
- The scheme should aim to replace like with like in terms of the status of the site. For example the loss of a maternity roost would require replacement facilities of the same scale and quality and the provision of simple bat boxes would not be appropriate.
- Compensation should ensure that the affected bat population could continue to function as before so attention may need to be given to surrounding habitats.

## 15 Mitigation proposals

- 15.1 Mitigation measures need to be designed carefully in relation to the species present. Full details of mitigation measures would normally be required for a Natural England licence application. This document would need to cover in detail how the protected species issue will be dealt with and in particular how the development can take place without detriment to the continuing presence of the protected species "at a favourable conservation status".
- 15.2 In this case Common Pipistrelle bats have been identified and the assessment, confirmed by active season emergence survey, is that the status is likely to have been a summer breeding roost but that the roost has been abandoned. The mitigation below has been planned on the basis that the abandonment is a result of the cessation of heating and that the bats would be likely to return if heating were to be resumed.
- 15.3 Since the existing building is to be demolished alternative provision will need to be made. Details of the new building are not known but wherever possible replacement roost sites should be provided as close as possible to existing. For example in the same orientation and height as the existing roosts but with alternative opportunities on other elevations and priority should be given to creating openings in gable apex locations and/or behind hanging tiles.
- 15.4 Provision would be in the form of small access openings in the wall corner at gable apex or eaves level, allowing bats into the wall top area under the slates or tiles, with some access to the wall cavity. Suitable openings need only be approximately 15mm x 75mm. The roost area can be boxed if necessary to limit bat access to the areas provided.
- 15.5 The timing of the overall scheme would normally be a detailed consideration because bats usually occupy summer roosts in buildings such as this one during the months May to August. Work to roosts including demolition would not therefore be carried out during this period. Because the bats have abandoned the site this year, those timing restrictions are not necessary except that as a precaution demolition methods should proceed with care in relation to the east and west gable and particularly the hanging tiles in these areas, which should be done under the supervision of a licensed batworker, in case any bats are present.
- 15.6 If demolition is delayed and likely to be carried out during the summer of 2009 a further emergence check should be made during that summer.
- 15.7 Care will be necessary with external lighting, with roost exists maintained in a dark condition. This can usually be achieved with careful design and the use of wall mounted down lighters. Powerful PIR controlled spotlights should not be used where light spillage might affect roost exit points and flight routes away from the roost.
- 15.8 A number of trees were found to have features considered to be potentially suitable for bat roosts, although no positive signs of bat roosts were found and these trees appear to be unaffected by the proposals anyway.

15.9 Feature attractive to bats can be summarised as follows:-

- Woodpecker holes – very high likelihood of use.
- Stem and major limb cavities – potential for hibernation sites.
- Smaller limb and branch cavities –can be quite small indeed and easily overlooked.
- Dead snags which might contain cavities.
- Branch stubs with decay in the stub end or round the edge of the stub.
- Branch splits, cracks & fractures caused by wind damage
- Lightening strike wound with later decay causing separate small, or narrow elongated cavities.
- Dead trees & stumps –cavities
- Loose bark
- Old pruning wounds with rot cavity.
- Ivy covered stems and limbs concealing cavities or providing roost crevices in old thick stems.

15.10 The extent of work proposed to be undertaken on the trees and how many and which trees might be removed as part of the scheme is unknown but it is understood that tree removal will be negligible. In this respect mitigation proposals can only be in outline. As a general principle, “tidying up” work, removing snags and broken stubs etc should be kept to a minimum and removal of cavity wood avoided wherever possible.

## **16 Conclusions & Recommendations**

- 16.1 Where a bat roost has been confirmed a Natural England license would normally be required. The license application would need to cover in detail how the protected species issue will be dealt with and in particular how the development can take place without detriment to the continuing presence of the protected species "at a favourable conservation status".
- 16.2 Where, as in this case, the bats have relocated themselves following the closure of the building and the cessation of heating, an offence is not likely to be committed and a license would not be required. If, however, a roost is subsequently discovered or suspected, (droppings appearing in patches on external walls, or audible sounds of scratching or chattering are heard, work should be stopped and further advice sought without delay.
- 16.3 Because, however, a bat roost has been present and the roost abandoned because of changed temperature conditions in the building following closure, the likelihood is that the bats would return if the heating were to be restored. On that basis therefore, it is recommended that the mitigation measures should be implemented but without the seasonal limitations imposed by the presence of the bats during the summer.
- 16.4 In terms of the proposed site it is understood that *tree felling and pruning* is likely to be limited. Potential roost sites might be found in cavities, splits and cracks, woodpecker holes etc. These are not likely to be affected by the proposals but if tree pruning or felling became necessary a proper survey would be advisable.
- 16.5 Trees close to building sites might become susceptible to disturbance from fires (smoke & fumes), noisy equipment, exhaust fumes and work lights (at and shortly after dusk) which could affect adversely affect any roosts present. Common sense and care in siting such features should prevent any problems occurring and avoid an offence being committed.

EM Bennett  
5 July 2008

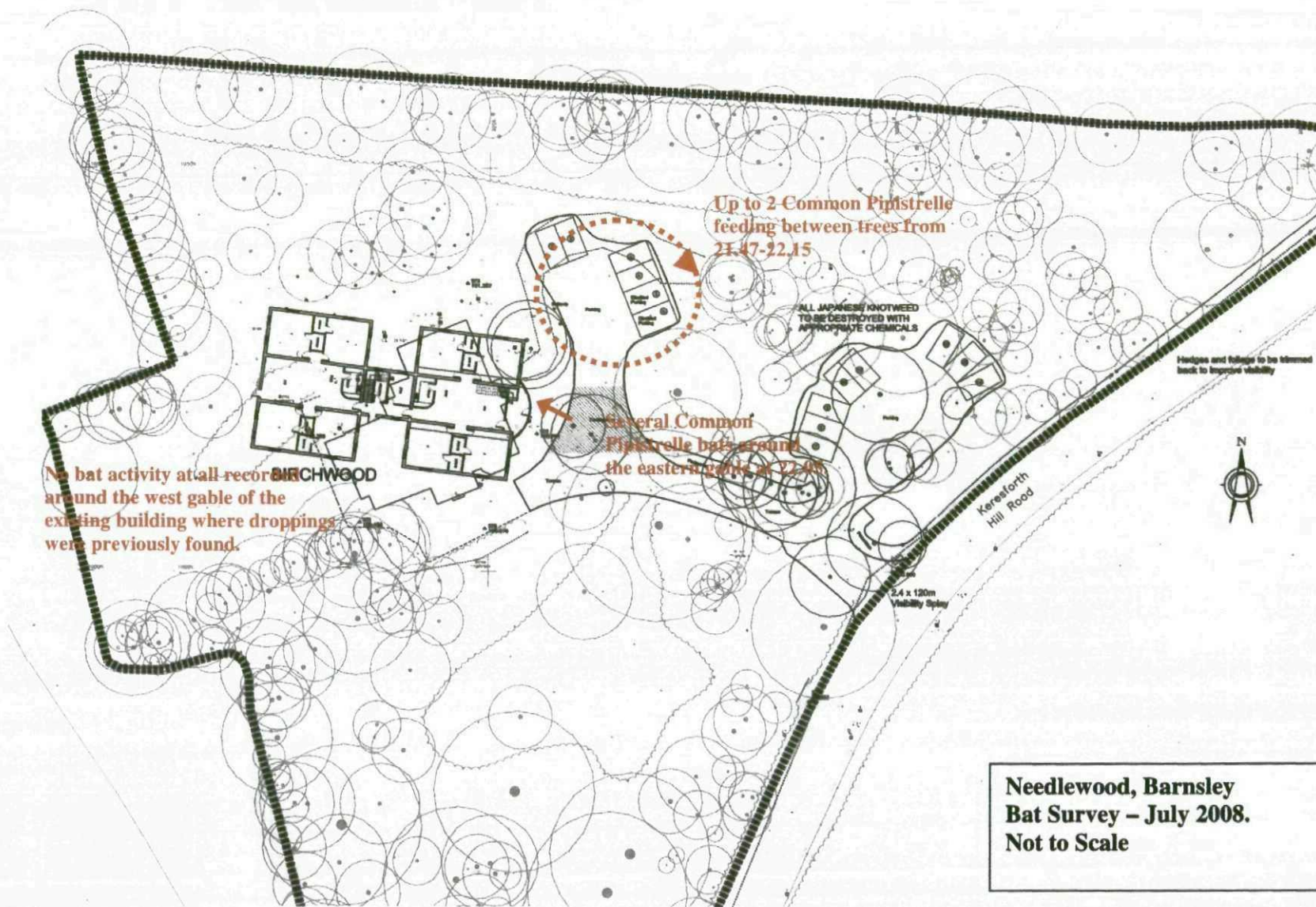
### **Details of Surveyor**

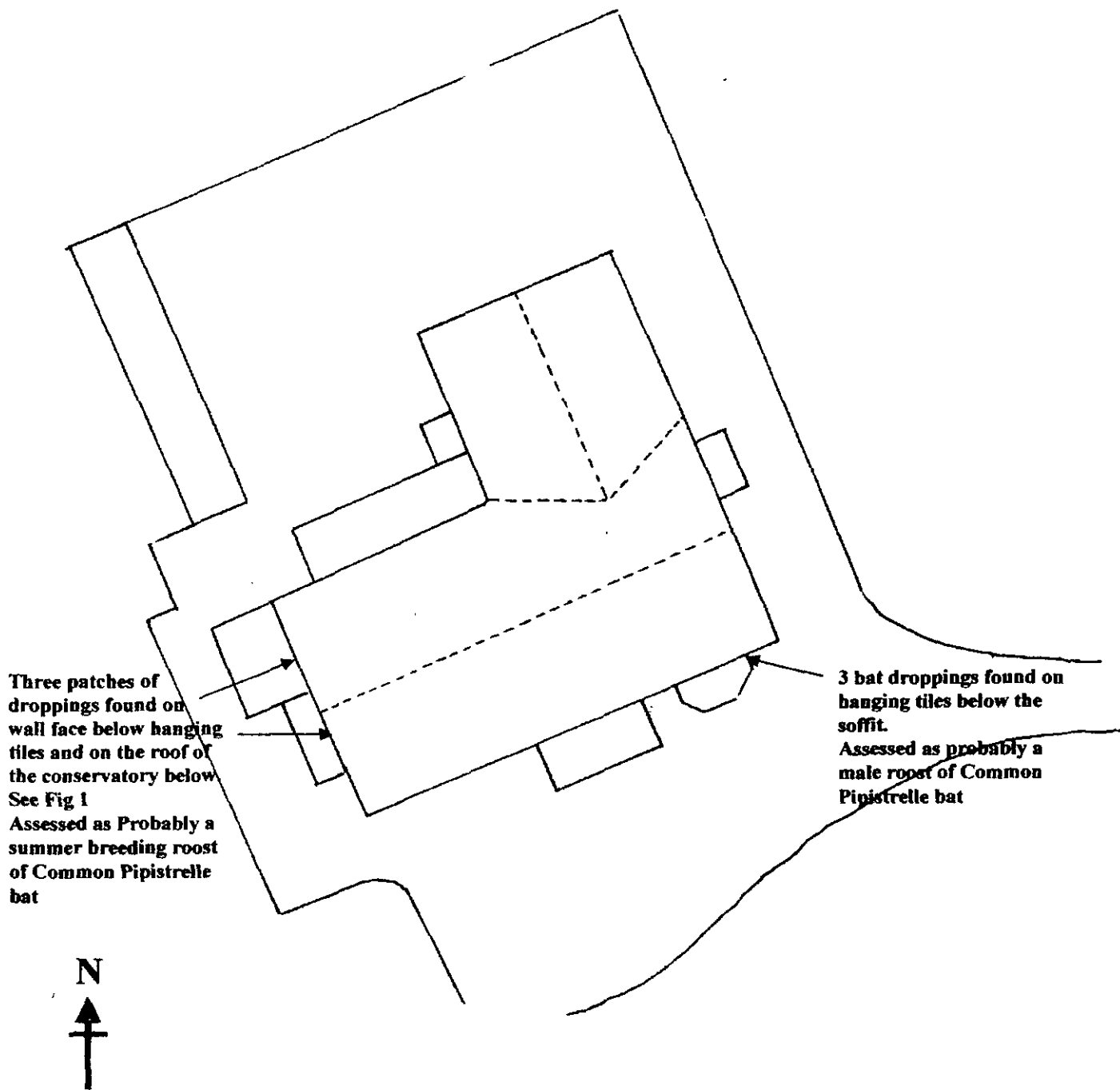
| <b>Surveyor</b> | <b>Experience</b>                                                                                                          |
|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| Mr Eric Bennett | Licensed bat worker since 1988. Licensed by English Nature for all bat species in all counties.<br>EN Licence No: 20062101 |

### **Record of revisions**

| <b>Date</b>      | <b>Details</b>                       |
|------------------|--------------------------------------|
| 31 October 2007. | Original Report                      |
| 5 July 2008      | Updated with results of dusk survey. |

---

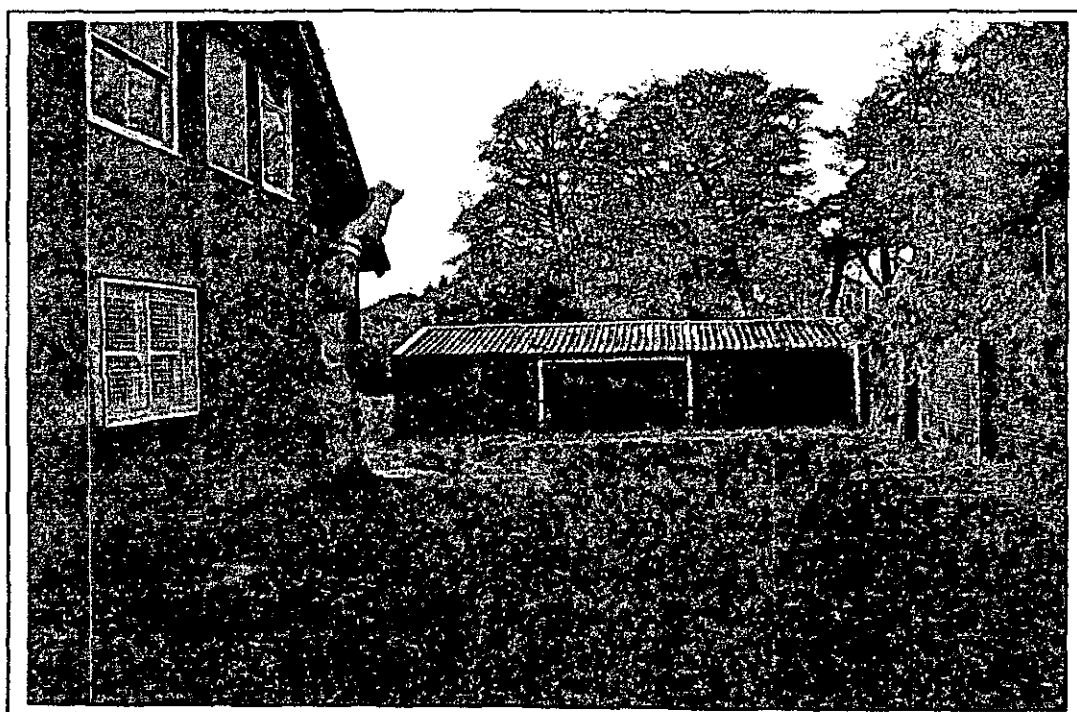




Crown Copyright. All Rights Reserved.  
Licence number 100042355

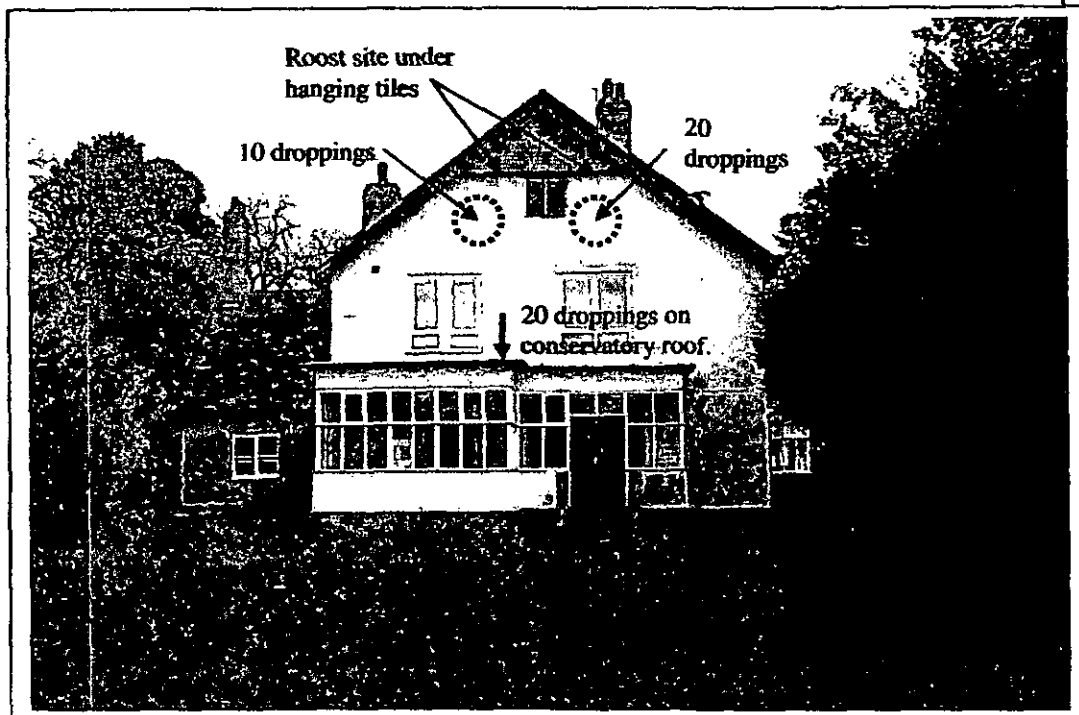
Needlewood, Barnsley  
Bat Survey – October 2007.  
Not to Scale

**FIG 2**



**Needlewood, Barnsley  
Bat Survey – October 2007.**

**FIG 1**



Needlewood, Barnsley  
Bat Survey – October 2007.