ECOLOCATION

Protected Species Surveys for Development

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Bat Assessment Report

for

The King's Head
Mapplewell
Barnsley
South Yorkshire
S75 6AP

for

Punch Partnerships (PTL) Ltd

(6th January 2014 - Revision A)

2013-11(06)

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Summary

- An initial walkover survey for bats was carried out at The King's Head, Mapplewell, Barnsley, South Yorkshire S75 6AP on 2nd December 2013.

- The proposed development includes the demolition of existing buildings at the site (including an existing public house and garages) and replacement with a convenience store and car parking.

- The garage was constructed in solid brickwork with a gabled roof finished with profiled asbestos cement sheeting. Whilst access for bats was possible, and there were opportunities for roosting against the king-post trusses internally, the roof covering is of a type that tends to heat and cool too quickly to offer sustained roosting opportunities for bats. In addition to this, no evidence of bats was recorded internally or externally of this building.

- The existing public house was constructed in solid brickwork with a main two-storey element with three gabled roofs and a single-storey element with a hipped roof and a gable projection. A roof void was present above each of the two-storey and single storey elements.

- There were a number of potential access points for bats into the public house at hip tiles, under lifted tiles, at gable verges and at soffits. There were two separate roof voids, both of which were accessed by the surveyor. No evidence of bats was found externally or internally of the building. However, there remained low-medium potential for crevice-dwelling bats such as Pipistrelle to roost in the soffits or beneath hip/ridge tiles as such areas are not visible to the bat surveyor during an intrusive inspection. This was supported, in part, by the presence of a number of bat roost records within a 1km radius of the site, although notably these were all located closer to suitable bat foraging habitat.

- As a result of these findings, sensitive working practices by way of a licensed ecologist undertaking a watching brief of the roof strip are recommended to ensure that no evidence of crevice-roosting bats is missed. Further details are provided in section 11.

1. Instructions

1.1. ECOLOCATION were appointed by Punch Partnerships (PTL) Ltd to undertake a bat assessment of the existing buildings at The King's Head, Mapplewell near Barnsley in West Yorkshire S75 6AP.

2. Purpose and Scope

2.1. The purpose of the survey and report was to assess the likelihood of presence or use of the buildings by bats in order to support a planning application for demolition of the buildings and replacement with a convenience store submitted to Barnsley Metropolitan Borough Council.

2.2. The scope of the survey was to encompass the buildings and a reasonable amount of working space around them.

3. Legislation

The Wildlife and Countryside Act 1981 (WCA) protects bats and their roosts in England, Scotland and Wales. Some parts have been amended by the Countryside and Rights of Way Act 2000 (CRoW) which applies only in England and Wales, and by the Nature Conservation (Scotland) Act 2004 which applies in Scotland.

The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. The Regulations came into force on 30 October 1994.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. All bats are listed as 'European protected species of animals'.

It is 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.

4 Timing and Conditions

4.1 The site was visited on Monday 2nd December 2013 commencing at 11:00 hrs

Parameter	Recorded Figure
Temperature	6ºC
Cloud cover	100%
Precipitation	No rain
Wind speed (Beaufort Scale)	2 - Light breeze

5 The Site

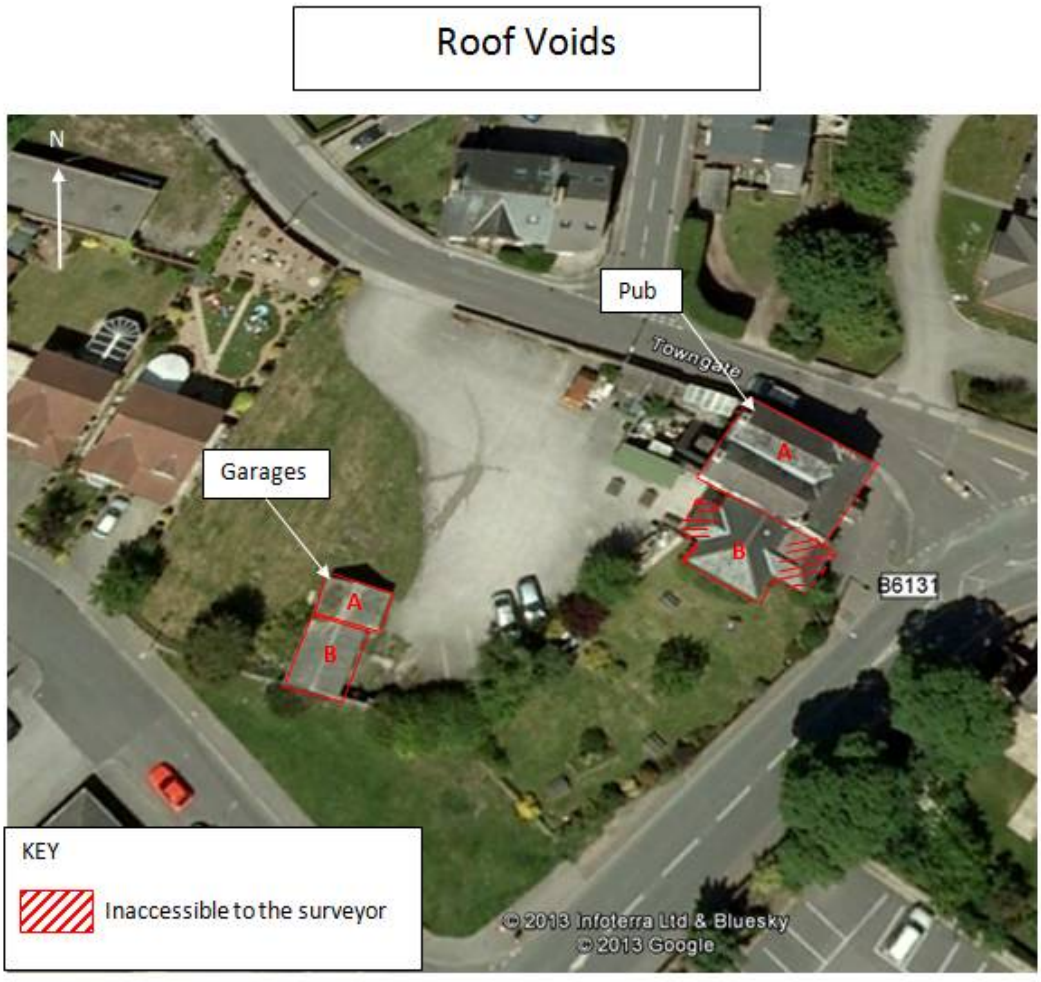
5.1 The site (Grid Ref SE 32700 10117) was located within the village of Mapplewell near Barnsley in South Yorkshire, just off the B6131 and set amongst the residential and commercial properties of Mapplewell.

5.2 The site comprised an existing public house, detached garage, amenity grassland and car park.

5.3 The existing public house had a main two-storey element with a broadly rectangular footprint and with three gabled roofs. Adjoining the southern elevation of this was a single-storey element with a hipped roof and a projecting gable to its east elevation. The building was constructed in solid brickwork and was rendered. Its roofs were of a traditional construction of purlins and rafters and were finished with slate. Void A did not benefit from any underfelt to the roof and the slates and battens were visible to the surveyor, whilst approximately 50mm mineral wool insulation was present in parts of the void between the ceiling joists. The ceiling to apex headroom within the part of Void A with a ridge running broadly north-south was c1.5m, whereas in the double pitched roofs with ridges running east-west, the headroom was only 1m. Void B, present above the single-storey element, had a headroom of c1.5m and appeared to be a more recent addition to the building as the underside of the roof was also lined with celotex between the rafters. No roof void was present above the single-storey projecting gable as this section was vaulted.

5.4 A detached triple garage was present some 25m south-west of the existing public house and this was also constructed in solid brickwork, though it was not rendered. It had a king post roof construction, a gabled roof finished with profiled asbestos cement sheeting, and no underfelt was present to its underside. The garage was split into two cells with no flighted access between the two. As the cells were vaulted, there were no separate roof voids. The cells were used for storage.

Site



Existing public house



front (eastern) elevation



rear (western) elevation



southern elevation



northern elevation



Void A - looking south



Void A - looking west

Void B



Garage



garages (eastern) elevation



garages (western) elevation



garages (northern) elevation



garage - cell A



garage - cell B

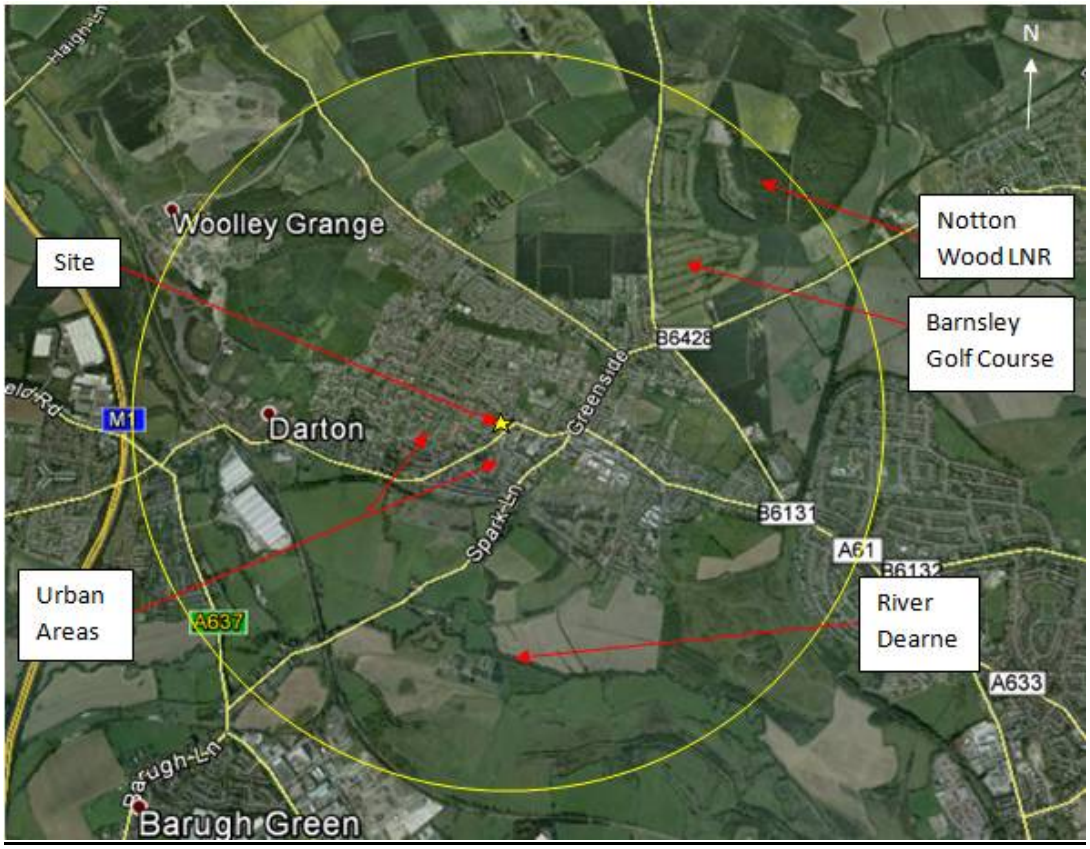
6 Habitat Assessment and Connectivity

6.1. The site was located along the B6131, within the village of Mapplewell near Barnsley in South Yorkshire, amongst both residential and commercial properties. A search to the Barnsley Biological Record Centre and on the Nature on the Map website revealed there to be a Local Nature Reserve of Notton Wood as well as Barnsley Golf Course some 1.5km to the north-east of the site. The former site comprised ancient woodland, which may have provided value to a number of local bat species, though it was separated from the site by an urban expanse of residential and commercial properties as well as roads. The increased human influences of such areas including artificial lighting and increased noise may have acted as a barrier to the dispersal of some bat species. Some 1.1km to the south of the site flowed the river Dearne, such habitats as those provided by rivers may have created a valuable wildlife corridor for many bat species which may have exploited this area for both foraging and commuting through the wider landscape. It should be noted however that the urban nature of the site and its immediate surrounding may have deterred many species of roosting bats, which would have been more likely to exploit the more suitable roosting features within less disturbed habitat on the outskirts of the village and closer to more suitable forage grounds.

6.2. A search of designated sites together with Priority Habitats and Species within 2km of the site's boundaries was undertaken as such habitats are likely to provide suitable foraging habitats for bats, typically being rich in invertebrates (bats prey species). The results of the search revealed the following:

Site Name/Habitat	Designation	Number within 2km of the site
National Inventory of Woodland	BAP Priority Habitat	8
Deciduous Woodland	BAP Priority Habitat	30
Notton Wood	Local Nature Reserve	1
Ancient Woodland	BAP Priority Habitat	5
Ancient Re-planted Woodland	BAP Priority Habitat	1
Traditional Orchard	BAP Priority Habitat	1

Annotated 2km



6.3. Overall, the local foraging opportunities for bats within the limits of this assessment were considered average, with suitable habitats provided within 2km of the site; however it was observed that the urban nature of the site's immediate surroundings might have decreased the likelihood of bats exploiting the suitable features noted within the site for roosting. It was considered likely that local bats were more inclined to exploit suitable roosting features nearer to good foraging grounds such as those provided by the river Dearne and within Notton Wood.

7. Data Search

7.1. A search of the South Yorkshire Bat Group records within 1km of the site, revealed a total of nine bat records with six Indeterminate Bat *(Chiroptera)* records between 1999 and 2005, two of which were for roosts; two records for common pipistrelle (*Pipistrellus pipistrellus*) between 2001 and 2013 and one record of noctule (*Nyctalus noctula*) in 2011. All such records were noted to be in areas very close to good quality bat foraging habitat.

8. Walkover Survey and Analysis

8.1 Bats

8.1.1 An initial walkover of the site indicated a number of access points that were available to bats on both the existing public house and into the garage. Such access points are illustrated by the insert on the following page.

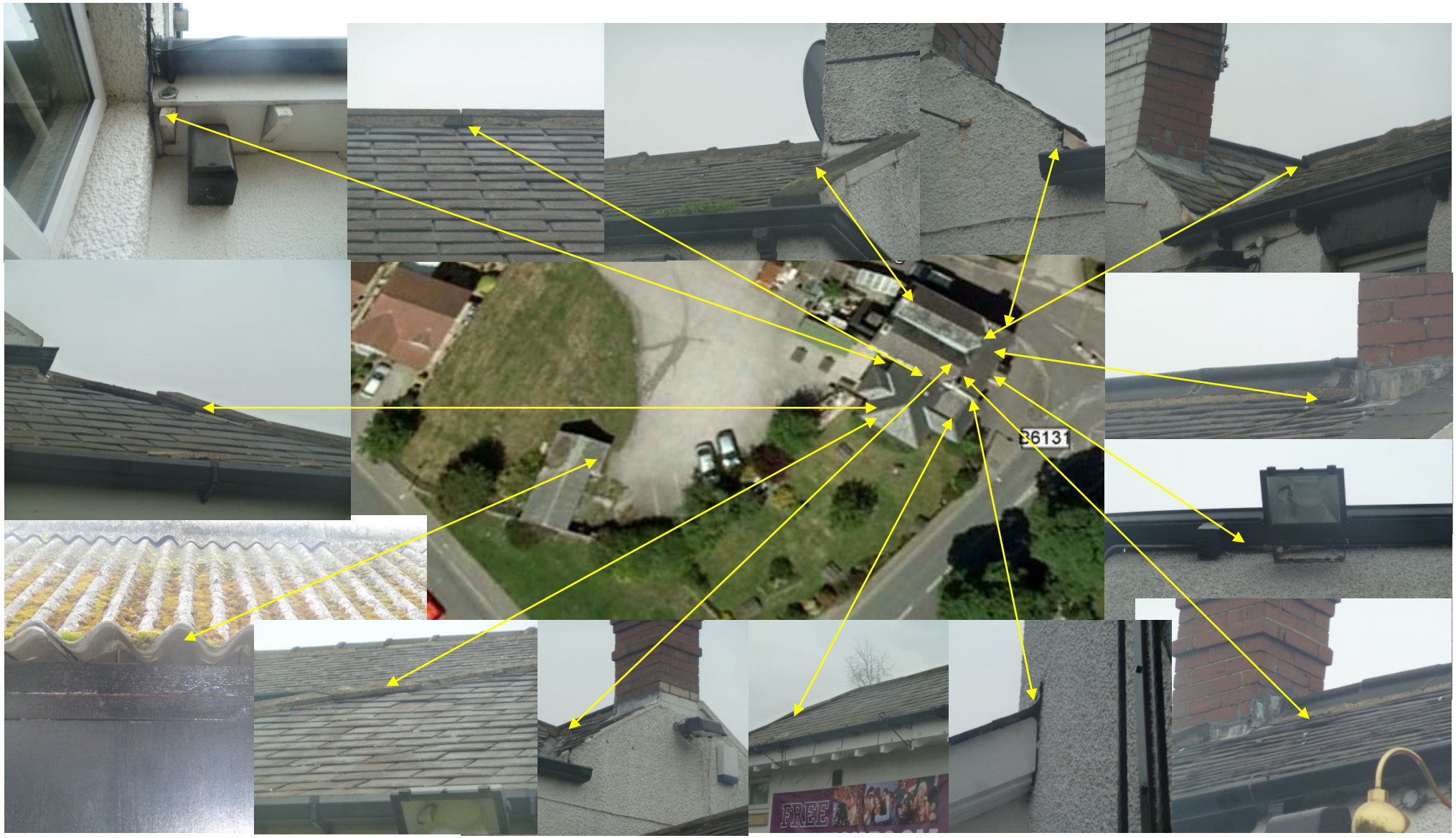
8.1.2 Access to bats was possible into external features of the public house including soffits, under hip tiles and at gable verges. Access also appeared possible to Void A due to a lack of underfelt, but did not appear as likely into Void B due to the presence of celotex to the underside of the roof. Access was possible internally to the garage due to the profiled nature of the roof covering resulting in suitable gaps at the eaves directly into cells A and B.

8.1.3 Long-eared species are often recorded in large open roof spaces, generally with gable ends, providing sufficient unobstructed space for social flight and light sampling activity at dusk and dawn. Void B was not considered suitable for long-eared bats as the presence of celotex would likely make accessing the void difficult. Void A was also sub-optimal as two of the three gabled sections of the void were only 1m in height from ceiling to apex (such species typically prefer 2m or greater). Whilst perching opportunities were available along the ridgeboard in the remaining gabled section and the headroom was closer to 1.5m, the roof lacked a lining and so was a little more exposed to fluctuations in temperature and perhaps to ingress of rainwater on occasion, such that roosting conditions were not optimal. The garage was vaulted so offered a floor to apex headroom of *c*4m with a reasonable length of ridgeboard along which bats could roost. The roof covering of asbestos cement, however, was far from optimal as this material tends to heat and cool to quickly to offer sustained roosting opportunities for bats.

8.1.4 Crevice-dwelling bats such as pipistrelle or small *Myotis* species are often encountered roosting within cavity walls, within soffits/behind fascias and between the underfelt and tiles on roofs. In this instance, the walls did not have a cavity and limited roosting opportunities were present under hip/ridge tiles and at soffits. Such areas cannot be seen by the surveyor during an intrusive inspection; hence, it is possible that limited roosting is occurring in these areas without bat evidence being apparent to the surveyor.

8.1.5 Overall, at this stage, the likelihood of bat presence or use of the buildings was considered medium when taking account of their construction, the access opportunities but tempered by the location of the site in a mostly residential setting immediately adjacent to busy roads and with existing bat records all tending to be located closer to suitable habitat.

Potential Bat Access Points



9 Intrusive Survey and Results

9.1 An intrusive investigation of the buildings was undertaken by Anna Swift (Bat Survey Licence Level 2: CLS01296) using Petzl Tikka Plus 2 headtorch, Clulite 'CB2' 0.5 and 1 million candle power lamp and 'SeeSnake' Micro Endoscope.

9.2 A search for the following was undertaken both internally and externally of the buildings:

- Live or dead bats - live bats could be freely hanging from the roof or tucked away in a crevice (depending on the bat species)
- Droppings - bat droppings will crumble when rubbed between your fingers (unlike those of small rodents such as mice and voles, which are typically hard and solid). Also bat droppings are often found in places where rodent droppings are not, such as stuck to walls or caught in cobwebs
- Feeding remains - these typically include the discarded wings of butterflies (such as peacock and tortoiseshell) and moth (such as noctuid species). An accumulation of such wings may be present under a well-used feeding perch and would often indicate the presence of brown long-eared or horseshoe bats, which typically leave such remains
- Absence of cobwebs - a roof void that is free of cobwebs could indicate animals, such as bats or even birds flying around in this space
- Oil staining - the fur of bats may leave an oily residue on areas around a well-used access point to a roost
- Daytime vocalisations - these are often heard at bat maternity roosts, especially during periods of warm weather
- Smell – some bat species, such as soprano pipistrelle or Noctule have an identifiable smell
- Tracks in dust - some bats have been known to take off from their perch in a roof void then land on the ceiling and crawl to the eaves or a similar area where their access point is located. If the ceiling of the roof void is dusty then bat tracks may be visible although this evidence would need to be corroborated by an additional positive sign from one of those listed above
- Scratching - scratch marks produced by the claws of many bats may be apparent close to the access point for a well-used roost, although these are often more readily identifiable on trees rather than in buildings. Again, this evidence would need to be corroborated by an additional positive sign from one of those listed above.

9.3 No evidence of bats was recorded externally or internally of the buildings. However, it should be noted that some areas that could potentially be used by crevice-dwelling bats are only visible on a destructive search of a roof, i.e. if roof tiles or soffits are removed.

9.4 It should be noted that there were dense cobwebs in both roof voids of the existing public house, particularly along the ridgeboard, indicative that nothing had been flying around (such as bats or birds) inside the voids for some time. The skeleton of a probable starling (*Sturnus vulgaris*) was noted on the floor within Void A of the existing public house, though no recent evidence of bird nesting was apparent.





dense cobwebs in Void A of the existing public house



Probable starling skeleton in Void A

9.5 The bat potential of the buildings described at the walkover stage in 8.1.5 was assessed as medium. As a result of the intrusive investigation, the likelihood of bats roosting in the public house or garage could now be described as follows:

- long-eared bat roosting in the public house or garage was now reduced to low
- crevice-dwelling bat such as pipistrelle roosting in the public house or garage was reduced to low-medium.

10 Survey Conclusions

10.1 The results of the initial bat assessment of the buildings indicated no evidence of bats within the roof voids nor externally. However, as previously stated, there were some access opportunities for crevice-dwelling bats into the public house and there were a number of records of these species within the wider area. Nevertheless, it is anticipated that roosts would likely be located much closer to waterbodies and woodland habitat, perhaps closer to the golf course, woodlands or the river at the boundary of the urban area. The site itself is located well within the urban area along a busy road and not so close to connective habitat. Notwithstanding this, some further investigation is required to better determine presence/absence of bats and this is described in section 11 below.

10.2 Incidental evidence of possible nesting birds was recorded during the survey by way of a single starling skeleton, although no recent evidence of nesting birds was noted.

11 Obligations and Recommendations

Bats

11.1 All species of British bat and their roosts (places of shelter or rest) are protected by law from intentional and reckless disturbance under The Wildlife and Countryside Act 1981 (amended by the Countryside and Rights of Way Acts 2000, and the Conservation of Habitats and Species Regulations 2010 to incorporate the European Habitats directive.

11.2 Bats are highly mobile and when not in hibernation can occupy a building overnight. It is essential therefore that due vigilance be maintained before and during any works to ensure their protection. The lack of evidence of any roosting at this stage does not constitute confirmation that this is not taking place intermittently or may not take place in the future.

11.3 Following completion of the survey, based on its results and the timing of the survey, there remains low-medium potential for crevice-dwelling bats to be roosting in concealed areas of the building. It is therefore recommended that **a watching brief** by a licensed bat worker of targeted areas of the roof to be soft stripped (such as hip tiles, ridge tiles, soffits and gable verges) be undertaken. Should evidence of bats be found during the watching brief, works must stop whilst Natural England are contacted on how best to proceed as it is possible that the slates would need to be replaced and the bat roost left undisturbed until such times that a bat licence from Natural England is in place.

11.4 Certain mitigation in respect of bats will be required if evidence of bats is found during the further investigations and this will be determined following discussions with interested parties, notably the client, the consultant ecologist, Natural England and the Local Planning Authority.

Birds

11.5 Whilst no evidence of nesting birds was recorded during the survey on 2nd December 2013, a starling skeleton was noted in Void A and as such there remains a good potential for birds to access the building and nest in the roof void, on top of the gable end or in soffits. The majority of species of nesting bird are protected under the Wildlife & Countryside Act 1981 and as amended by the Countryside & Rights of Way Act 2000. The site should therefore be surveyed for nesting birds prior to commencement of works by a person competent to do so and due vigilance also be maintained during construction to ensure that no breeding birds are disturbed during the construction process should nesting commence thereafter. Birds typically nest between March-September inclusive though some species will nest at any time of year. If evidence of nesting birds is found, no works should be undertaken that may cause disturbance until after all the chicks have fledged.

12 Mitigation and Enhancements

12.1 No mitigation in respect of bats is recommended at this stage. However, mitigation will be required should evidence of bat roosting be recorded at the site as a result of the sensitive working practices. Such mitigation would be subject to detailed discussions between the ecologist and the client and, ultimately, agreement with the local planning authority.

13. References

Bat Workers Manual (3rd Edition) JNCC, 2004
Bat Survey Guidelines, Bat Conservation Trust, 2012, 2nd ed
Bat Mitigation Guidelines, English Nature Jan 2004
Long-eared bats, Susan M Swift 1998
The Conservation of Habitats and Species Regulations, HMSO (2010, as amended)
NPPF - National Planning and Policy Framework
Circular 06/2005: Biodiversity and geological conservation: Statutory obligations and their impacts in the planning system
South Yorkshire Bat Group
www.nbn.org.uk
www.natureonthemap.org.uk
Google Earth Pro