

PRELIMINARY ROOST & NEST ASSESSMENT

Conifers Merley Park Road Ashington BH21 3DD

GR: SY 99712 97808

October 2023







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Notice

Ecological Surveys Limited was commissioned to undertake an Internal / External Bat and Protected Species Scoping Survey of the above site proposed for development. This report details the results and conclusions of this survey. The results of this survey are deemed to be valid for 12 months from date of survey. If development works are to be carried out after this time has elapsed, an updated survey will be required.

This survey was undertaken with all proper and reasonable skill and care in a professional manner and in accordance with accepted standards, methodologies and guidelines and is based on the evidence recorded at the site at the time of the survey. The information gathered is considered sufficient to provide an assessment of the ecological interest on the site and justify the recommendations provided in this report.

Refer to <u>Appendix 1: Legislation Bat and Bird Species</u> for details of Bat and Bird Law and Legislation and <u>http://www.nwcu.police.uk/</u> regarding avoiding committing wildlife crime.



Executive Summary of Findings

Bats		
Structure surveyed and assessed	A detached house and a garage	
Evidence of Bats in Surveyed Structures	None found	
Roost Assessment	Not confirmed	
Potential ingress for Bats	Low level of potential roosting features present at the rear elevation of the upper roof of the main house	
Bat Emergence Surveys	It is understood that the proposed works will not impact on the rear elevation of the roof of the main house where potential bat ingress points exist. Therefore, Bat Emergence Surveys are not required in this instance.	
Avoidance	Any present or future works which disturb/damage/modify/destroy the features assessed as offering habitat potential to roosting bats MUST be avoided.	
Mitigation	A Lighting Strategy is REQUIRED	
Enhancement	Bat Roosting Provision NOT REQUIRED	

Birds	
Evidence of Birds	None found
Additional Potential Features	N/A
Bird Surveys	NOT required.
Mitigation	NOT REQUIRED.
Enhancement	A Bird Provision is REQUIRED

Client/Acting Agent Responsibilities

The client/acting agent must abide by the mitigation and enhancements outlined in this report. No works within this proposal or future proposals can proceed to the upper roofing areas of the main house including roofing tiles and ridge tiles at the rear elevation, without Bat Emergence Surveys being undertaken to determine the status of roosting bats.

The potential ingress points which presently exist must be retained. No works to change/modify/block ingress may be undertaken unless a Bat Emergence Survey has verified the status of roosting bats and appropriate mitigation has been determined.

Where bats are confirmed or possible within a structure the client should familiarise themselves with: - <u>http://www.bats.org.uk/pages/bats and the law.html</u>

Refer to <u>Appendix 1: Legislation Bat and Bird Species</u> for details of Bat and Bird Law and Legislation and <u>http://www.nwcu.police.uk/</u> regarding avoiding committing wildlife crime.



Survey Objectives

The survey specifically aimed to identify the following:

- ✓ The presence of, or past use of the site by, any species of bat.
- ✓ The presence of, or past use of the site by, barn owl, or other nesting birds.
- ✓ The site's potential for use by any of the above.
- \checkmark Any other ecological issues relating to the proposal.

Methods

Internal & External Inspection

The aim of the survey was to assess levels of usage of specific structures or potential for usage by bats and birds through the presence of actual animals or their field signs. The survey was conducted with the aid of head and hand-held torches, an endoscope, close-range binocular/monocular, Bat-box Duet and a digital camera. Images and samples (where available) were taken for supporting evidence.

Interior

The interior spaces were checked for light ingress and access points for bats and birds. Bat droppings, insect prey remains, urine stains, oil stains from bats repeatedly moving over a small area and polishing the surface and the potential presence of bats either dead or alive was considered. Bird droppings, whitewash, pellets, nesting materials, birds, dead or alive, and potential for nesting was considered, including areas hidden from sight.

Exterior

The building exteriors were searched visually using binoculars or a close range monocular and photographed with a digital zoom camera for field evidence of bats or birds, with particular attention being paid to sheltered areas such as window ledges and pipes where bat/bird droppings might lie undisturbed from the weather and areas hidden from sight.

Constraints

Part of the loft void of the main house was inaccessible. All accessible internal and external surfaces were inspected and assessment made of the roof structure. The survey effort was considered sufficient to draw appropriate conclusions. It took into account the time of year (optimal period is April – September) and likely availability of evidence, with appropriate emphasis on suitable roosting or nesting conditions, opportunities for potential access through ingress points, free-flight, crawl spaces externally and internally, and features that may have been hidden from full view.



Site Habitat and Location



Site boundary in blue, surveyed house in red, and surveyed garage in green



Map of Site Location – 500m- 2km

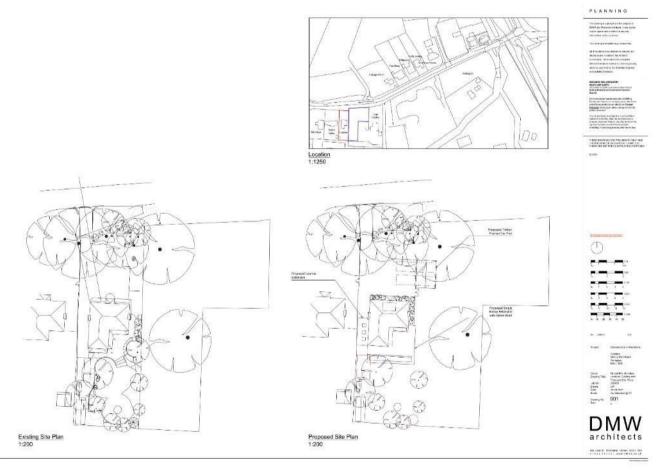


Assessment of adjacent and surrounding habitat: The structure surveyed is not located within or adjacent to any significant land or marine designations which it would negatively impact. It is relatively close to Cogdean Elms LNR (approx. 300m west), Corfe & Barrow Hills LNR (approx. 160m southwest), Corfe Hills LNR (approx. 460m southwest), Dorset Heathlands SPA & Ramsar, Dorset Heaths SAC and Corge & Barrow Hills SSSI (approx. 550m southeast), but as the proposal is only for a single storey extension, the designated sites are unlikely to be negatively impacted.

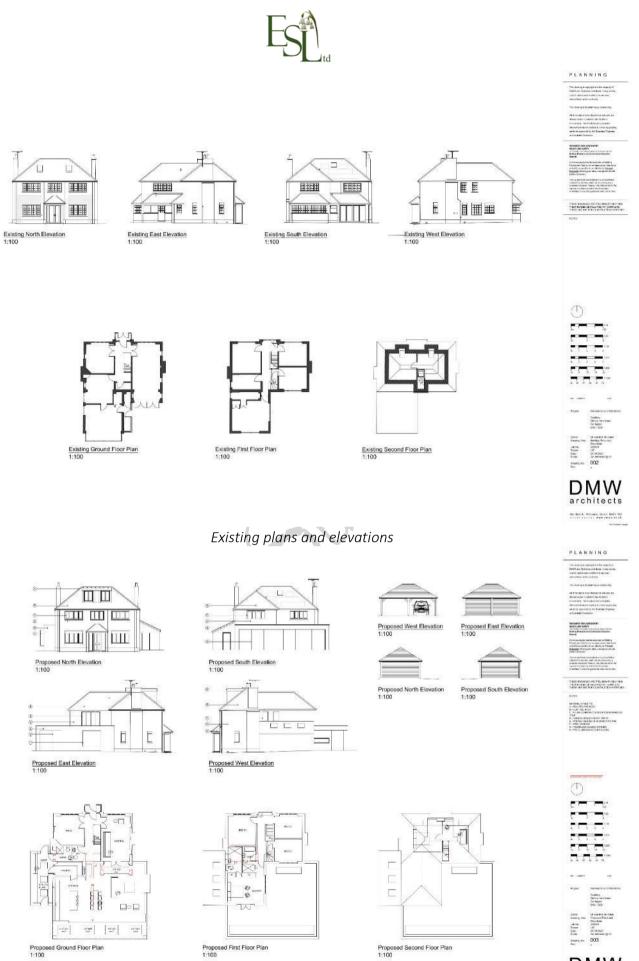
Habitats comprise residential garden adjacent to mature hedgerows and lines of trees which connect to BAP deciduous woodland. It is generally suitable for foraging and commuting bats, although offers more value for nesting birds.



It is understood the proposal is for a single storey extension to the main house, demolition of the existing garage, and construction of a new car port.



Location and existing and proposed plans



Proposed plans and elevations

DMW architects All Rolls: Printers David Rept 102



It is understood that no works are proposed to the rear aspect of the roof of the main house with bat access potential. As the upper roofing structure at the rear elevation has been assessed as offering low potential, it is essential that that this is adhered to. If proposals change, it may be necessary to undertake at least one Emergence Survey, or three where bats are subsequently recorded onsite.

Works must proceed as outlined in the proposal and with attention to mitigation/enhancement within this report, with no works or future works to impact the upper rear roof of the main house.



Building / Structures within Development Zone

The buildings were assessed against the criteria laid out in <u>Appendix 3: Assessing the Potential Value</u> <u>for Buildings</u>.

Structure: The main house

External features: The surveyed house is a pebbledash rendered structure with a multiple pitched tiled roof. The roof tiles and ridge tiles at the rear elevation of the upper floor has low potential for bat access.

Internal features: The loft void under the ridge is inaccessible but the side lofts are accessible. The roof under the side lofts is lined with sarking. No evidence of bat roosting or bird nesting was found. The sarking is tight with no visible gaps, and therefore if bat are present, the evidence is likely to be hidden within the gap between the sarking and the tiles.

Associated habitat: Residential garden.



Assessed Structure – front of the surveyed house (northern orientation)



Rear of the surveyed house (southern orientation)



External Feature: roof tiles and ridge tiles at the rear elevation of the upper floor with low potential for bat access



Internal Feature: the inaccessible loft void under the ridge





Internal Feature: the accessible side loft

Residential garden

Structure: The garage

External features: The surveyed garage is a pebbledash walled structure with a pitched interlocking tiled roof. The interlocking tiles are all tight with no potential bat access point found. The garage has negligible potential for bat roosting.

Associated habitat: Residential garden



The side of the garage



The rear of the garage

The front of the garage



The internal structure of the garage



Results and Assessment

	Bats		Birds	
Structure	Confirmed Roost/ Evidence	Potential Roost Ingress/crevices	Nest Present	Potential for Nesting Exists
House	None	Low potential at the rear upper roof – otherwise Negligible	None	Negligible
Garage	None	Negligible	None	Negligible

Phase 2 Survey	 Bats: - Not required. If the proposal changed and the proposed works will disturb/damage/modify/destroy the features considered to offer bat roosting potential, including the roof tiles and ridge tiles at the upper rear roof of the main house, emergence Surveys will be required. Birds: - Not required. 	
Mitigation	 Avoidance: - Works which will disturb/damage/modify/destroy the features considered to offer bat roosting potential are prohibited unless a Bat Emergence Survey has informed on the necessary mitigation required where bats are present. Strategy: - Artificial Lighting Strategy 	

Potential exists for bats to inhabit the main house as ingress points were recorded. The potential for bat roosting is assessed as low. However, as the proposed works will not disturb/damage/modify/destroy potential bat features, bat emergence surveys are not required for these works. Mitigation will apply to protect potential bat roosting features from introduced artificial lighting spill.

It is considered that the works can be undertaken in a manner consistent with the guidelines in this instance: if the proposed activity can be timed, organised and carried out so as to avoid committing offences then no licence is required - Mitchell-Jones, A., 2004. Bat mitigation guidelines. English Nature.

It is the client's responsibility to ensure that if proposals change and works to the roofing features are required to facilitate this or future proposals, that Bat Emergence/Re-entry Surveys are commissioned and are completed prior to any roofing works proceeding.

Emergence/Re-entry Surveys can only be undertaken between May and August each year. It may be possible for surveys to extend into September too. It is never too soon to arrange emergence/reentry surveys, even if they cannot be undertaken for several months. This is because the emergence survey season, in particular May and June, are usually exceptionally busy for bat surveyors.



Active bird nests, irrespective of species are protected by law. Works cannot take place until nestlings have fledged, and the nest is no longer in use. If birds nest prior to or during development works and this nest will be impacted by the proposal, work must cease until all chicks have fledged and flown and/or nesting has ceased.

No further habitats or species are considered to be at risk of impact by this proposal.

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Mitigation

Under the National Planning Policy Framework (NPPF), Local Planning Authorities (LPAs) have an obligation to promote the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species as identified under the Natural Environment and Rural Communities Act (2006). Local Planning Authorities will seek to produce a net gain in biodiversity by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for. Mitigation is the process of replacing any ecological / biodiversity losses because of development. LPA 'Building Control' will ensure that Mitigation / Enhancement measures have been implemented as per recommendations.

Bat Mitigation

Works are prohibited to rear roofing features at the upper floor of the main house unless 1 Bat Emergence Survey is undertaken and completed and the results have informed a Mitigation Strategy. This includes any works which would partially or fully block or seal through repair of otherwise, rear roof and ridge tiles at the upper roof, which might be allowing ingress into the gaps between lining and tile or the inaccessible loft void under the ridge. Introducing any sustained artificial lighting towards the area with bat access potential is also prohibited.

A lighting strategy is required to prevent artificial light spilling onto existing roosting features and bat flight paths.

Lighting Strategy

- Avoid artificial lights shining on known or potential bat roosts, their access points and their flight paths during any stage of the works for this proposal.
- Avoid artificial lights shining on known or potential bat roosts, their access points and their flight paths post development works.
- Light ONLY when and where it is needed for health and safety.
- Prevent light-spill and spread. Eliminate bare bulbs, upward pointing lights, keep light near to or below the horizontal. E.g. flat cut-off lanterns. Such light should be positioned to only illuminate the required areas, limiting light spill, both horizontally and vertically. Additionally, hoods, cowls, louvers and/or shields may be utilised to further direct any lighting.
- Decrease light intensity, avoid the UV spectrum: attracting insects is NOT an aim.
- Reduce height of lighting columns. Or allow for lower main beam angles to reduce glare.
- Timer switch on any proposed outdoor lighting to facilitate dark periods.



Bat Advisory

Irrespective of survey findings, contractors should be made aware that there is always the potential presence of bats in association with roofing layers, ridgelines and wall tops. In the event that a bat is found during works, all activities near the discovered bat(s) should cease and advice sought from Ecological Surveys Ltd (Tel: 01503 240846 or 07736 458609) or the Bat Conservation Trust Helpline (Tel: 0345 1300 228). Bats should not be handled (unless with gloves) and only then to protect them from harm, but wherever possible should be left in situ, gently covered until advice is obtained.

Bird Advisory

It is possible that bird nests could also be newly established in association with this site during future, bird nesting seasons. The bird nesting season generally extends from March to August inclusive. Although, depending upon the species, geographical area and the weather conditions, nesting can extend outside this period and it is the nesting behaviour that must be observed, not the supposed time frame, as collared doves (Streptopelia decaocto) and barn owls (Tyto alba) have been observed to nest in every month of the year. All British birds and their nests are protected whilst in use; therefore, if a nest is found during construction work, all activity must cease within proximity and ecological advice (Tel: 01503 240846 or 07736 458609) sought immediately.



Impact Avoidance During the Construction Phase

All activities on site should bear in mind the potential for wildlife or the environment being harmed through the process of development from inception to end, with a proactive approach occurring for lawful protection of wildlife and the environment regarding use of materials, machines, chemicals, and human activity on site.

- Prevent invasive non-native plants on development land managed during this time from spreading into the wild or a neighbour's property and causing a nuisance.
- Restrictions apply to mulching and earth moving which may cause the spread of invasive nonnative plants and animals.
- > Restrictions apply to activities that cause the spread of non-native animals into the wild.
- Contractors must ensure that no harm can come to wildlife by maintaining the site efficiently, clearing away any material such as wire in which animals can become entangled and preventing access to toxic substances.
- Trenches or large excavations should be covered overnight to prevent wildlife such as badgers or hedgehogs falling in and failing to escape. If this is not possible then a strategically placed plank may provide a means of escape.
- ✓ Any large bore pipes should be capped at the end of the day to reduce the potential for badgers and other wildlife entering and becoming trapped.
- ✓ Areas that are being retained should be protected from damage during construction by erecting Heras (or similar) fencing around these features. The fencing should be erected outside the line of the canopy as this helps protect the roots from compaction of the soil.
- ✓ Any areas proposed for planting post-development should be fenced off where possible to prevent compaction of the soil through vehicle movements.
- ✓ If there is a substantial delay before development commences, the site should be maintained in a way that would prevent wildlife colonising it and causing constraints in the future. Such management should include mowing grassland at least twice a year and preventing scrub encroachment.
- ✓ Piles of brush wood and or log piles should be carefully inspected for signs of wildlife prior to their removal. This is especially crucial during the period March – September (inclusive) as some species of bird choose such sites to construct their nests. Ideally removal of such features should be done outside of the nesting season. If this is not possible, it is recommended that these features are covered in such a way as to exclude / prevent birds and / or reptiles taking up residence. Should nesting birds or reptiles be discovered, work must cease immediately and ecological advice sought.
- All hedgerows / trees / shrubs removal should be done outside of the bird nesting season March

 September (inclusive). If removal is not possible during this period, careful checks of such,
 must be conducted by a suitably experienced ecologist prior to works commencing.



Enhancement

The National Planning Policy Framework (NPPF) sets out the UK Government's national policies on enhancement of biodiversity and promotion of ecosystem services through the planning system. Under NPPF, Local Planning Authorities (LPAs) have an obligation to promote the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species as identified under the Natural Environment and Rural Communities Act (2006). LPAs will therefore seek to produce a net gain in biodiversity by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for. As a minimum, LPAs now expect any new structure to include <u>bat roost or bird nesting provision</u>.

Bird Enhancement

Bird nesting provision – a built in bird brick is required on northern or eastern elevation of the extension to enhance this site post development.

The client must:

- Incorporate features which support the nesting of birds in the construction of new development.
- Ensure that nesting boxes are of durable and ideally permanent construction. Some account must be taken of the potential need to maintain, and in the case of wall mounted units, replace boxes after a number of years in use.



Schwegler Brick Nest Boxes

- Bird boxes which are built into the fabric of a structure are the preferred choice. Generally, only where it is not possible to build a bird nesting box into a structure for construction reasons, will externally mounted boxes be acceptable to the LPA.
- Birds can be accommodated by either adapting the structure of a building to allow access to parts otherwise sealed by modern construction, or through the provision of purpose built nesting boxes.
- Where incorporating the latter as part of a scheme of enhancement, only boxes of robust or permanent construction – preferably those constructed to be incorporated within the building fabric itself – are likely to be suitable.
- Boxes are best erected on the east or north facings to avoid eggs and chicks overheating.
- For many common song-bird species, where domestic or feral cats may roam, positions of not less than 3m high are preferable.
 - It is preferable to site nest boxes in locations that are accessible for maintenance, away from bird feeders, a discrete distance away from other nest boxes and so that they provide some protection from predators and vandalism.

ESL

Conclusions

The structures within the application site have been assessed and the conclusion is that this site provides:

- Potential roosting habitats – not to be directly impacted by proposed works.

Unmitigated works could, however, cause disturbance to protected bat species through indirect light pollution, therefore, artificial lighting spill must be restricted towards the area with bat access potential during and post construction.

Enhancement for birds in the form of nesting provision is to be applied.

LPA 'Building Control' will ensure that Mitigation / Enhancement measures have been implemented as per recommendations.

It should be noted it is possible that bats may on occasion utilise restricted and concealed spaces, such as upon wall tops, within deeper cracks or crevices or even within wall cavities of a structure with their subsequent field signs remaining concealed. Therefore, it is always possible that bat roosts/roosting locations may remain unidentified.

Bird locations and access are usually less concealed, however, in each instance of bats and birds, 'Good Practice' which abides by law and legislation must always be applied prior to and throughout the development procedure. It is also possible that any alteration to the structure or structures on site, might render an unsuitable structure, suitable. Examples could include: storm damage or partial completion of works which create opportunities for bats or birds to enter a structure.

Please refer to client/agent personal responsibilities: <u>Appendix 1: Legislation Bat and Bird Species</u>, and <u>Mitigation</u> and <u>Enhancement</u>.



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Appendix 1: Legislation Bat and Bird Species Bats

All bat species and their roosts are legally protected in the UK. All bats are listed as European protected species of animals in the European Union's Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the Habitats Directive. This Directive is implemented in the UK by The Conservation of Habitats and Species Regulations 2010 (better known as the Habitats Regulations).

There is also some protection for bats and roosts in England and Wales under the Wildlife & Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000). For practical purposes, the protection of bats and their roosts now falls mostly under the Habitats Regulations.

In summary, it is an offence to

- Deliberately, capture, injure or kill a bat.
- Deliberately, disturb in a way that would significantly affect their local distribution or abundance, or affect their ability to survive, breed or rear young.
- Damage or destroy a roost (this is an 'absolute' offence).
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.

('Deliberately' may be interpreted as someone who, although not intending to injure, kill, etc. performed the relevant action, being sufficiently informed and aware of the consequences their action will probably have.)

A person who needs to carry out actions that would result in an offence being committed should apply for a derogation licence from Natural England. They have powers to grant Habitats Regulations derogation licences in certain circumstances, for certain reasons and with certain terms attached, so that the licence holder remains within the law. Application for a derogation licence should be made in plenty of time, and the services of a bat expert utilised in making the application. It is an offence to make a false statement to obtain such a licence.

This information is not provided as legal advice and before making decisions relating to the law a qualified legal representative should be consulted.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare. In addition to the protection afforded to all wild birds, rarer or particularly vulnerable species listed on Schedule 1 of the 1981 Act, such as the barn owl, receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless



disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

If nests, whether completed or in the process of being built, are found on site, any works with the potential to damage or destroy the nest, eggs or young birds, must stop until the birds have completed breeding. This includes any activity that could potentially cause an adult bird to desert the nest resulting in death or egg failure. Nesting sites should be inspected only by experienced ecologists.

Any disturbance of a breeding bird listed on Schedule 1 is an offence, regardless of whether this impacts upon the breeding attempt. These nests can only be visited by an ecologist with a licence for the specific species concerned.

Birds may nest on machinery or scaffolding and other temporary site structures. If this happens the equipment cannot be used until the birds have finished nesting and such areas may need to be sealed off to prevent disturbance.

Breaking the law can lead to fines of up to £5000 per offence and potential prison sentences of up to six months. Vehicles implicated in an offence can be compounded and both the company, and/or the individual(s) concerned, can be held liable.



Appendix 2: Bat Scoping Triggers.

A Bat Survey is ordinarily triggered when there is to be:

Conversion, modification, demolition or removal of buildings (including hotels, schools, hospitals, churches, commercial and derelict buildings) which are:

- Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams.
- Buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water.
- Pre-1960 detached buildings and structures within 200m of woodland and/or water.
- Pre-1914 buildings within 400m of woodland and/or water.
- Pre-1914 buildings with gable ends or slate roofs, regardless of location.
- Located within, or immediately adjacent to woodland and/or immediately adjacent to water.
- Dutch barns or livestock buildings with a single skin roof and board-and-gap or Yorkshire boarding if, following a preliminary roost assessment, the site appears to be particularly suited to bats.
- At the behest of the LPA / County Ecologist.
- Further details of other triggers can be found below.

Development and Planning Trigger for Bat Surveys

Development and planning trigger list for bat surveys, which can be adapted to local circumstances (taken from the Association for Local Government Ecologists (ALGE) template for biodiversity and geological conservation validation checklists 2007, available from http://alge.org.uk/publication/index.php).

- (1) Conversion, modification, demolition or removal of buildings (including hotels, schools, hospitals, churches, commercial premises and derelict buildings) which are:
 - Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams;
 - Buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water;
 - > Pre-1960 detached buildings and structures within 200m of woodland and/or water;
 - > Pre-1914 buildings within 400m of woodland and/or water;
 - > Pre-1914 buildings with gable ends or slate roofs, regardless of location;
 - Located within, or immediately adjacent to woodland and/or immediately adjacent to water;
 - Dutch barns or livestock buildings with a single skin roof and board-and-gap or Yorkshire boarding if, following a preliminary roost assessment, the site appears to be particularly suited to bats.
- (2) Development affecting built structures:
 - Tunnels, mines, kilns, ice-houses, adits, military fortifications, air-raid shelters, cellars and similar underground ducts and structures; unused industrial chimneys that are unlined and brick/stone construction;
 - > Bridge structures, aqueducts and viaduct (especially over water and wet ground).
- (3) Floodlighting of

	\triangleright	Churches and list buildings, green space (e.g. sports pitches) within 50m of woodland,
		water, field hedgerows or lines of trees with connectivity to woodland or water;
	\triangleright	Any building meeting the criteria listed in (1) above.
(4)		Felling, removal or lopping of:
	\triangleright	Woodland;
	\triangleright	Field hedgerows and/or lines of trees with connectivity to woodland or water bodies;
	\triangleright	Old and veteran trees that are more than 100 years old;
	\triangleright	Mature trees with obvious holes, cracks or cavities, or that are covered with mature
		ivy (including large dead trees).
(5)		Proposals affecting water bodies:
	\triangleright	In or within 200m of rivers, streams, canals, lakes, reed beds or other aquatic habitats.
(6)		Proposal located in or immediately adjacent to:
	\triangleright	Quarries or gravel pit;
	\triangleright	Natural cliff faces and rock outcrops with crevices or caves and swallets.
(7)		Proposals for wind farm developments
	\triangleright	of multiple wind turbines and single wind turbines (depending on the size and location)
		(NE TIN 051 – undergoing updates at the time of writing)
(8)		All proposals in sites where bats are known to be present ¹
	\triangleright	This may include proposed development affecting any type of buildings, structures,
		features or location.
Note	s:	
1	: W	Vhere sites are of international importance to bats, they may be designated as SACs.

Developers of large sites 5-10km away from such SACs may be required to undertake a HRA.



Appendix 3: Assessing the Potential Value for Buildings Classification Criteria

It should be noted that the grading system below only reports on the situation at the time of survey; should bat activity levels change after the initial survey, or should the buildings be modified (for example if roof tiles are removed or facia boards develop cracks), the category may need revision.

Category (Potential value)	Description
Please note: Intermediate catego	ries (e.g. Low – Moderate value) may apply.
No/Negligible value	Buildings with no or very few features capable of supporting roosting bats. Often buildings are of 'sound' well- sealed structure, or have a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. Buildings without any roofs may also fall into this category.
Low value	Buildings of largely unsuitable construction, but with few features of potential value to bats (e.g. gaps above windows, apparently shallow crevices). No supporting evidence (e.g. droppings / staining) found. Buildings may be surrounded by poor or sub-optimal bat foraging habitat, as is often the case in urban-centre locations.
Moderate value	Buildings usually of brick or stone construction with a number of features of obvious potential value to roosting bats e.g. loose roof / ridge tiles, gaps in brickwork, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt.
High value	Buildings with a large number of features of obvious potential value to bats (as above). Bats may be suspected to roost within the building (at least at certain times of year), but no supporting evidence found.
Confirmed roost	Bats discovered roosting within the building, or recorded emerging from / entering the building at dusk and / or dawn. Building found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed record (as supplied by an established source such as the local bat group) would also apply to this category.



Appendix 4: BCT Emergence Survey Guideline (Collins, 2016) The full version of the 2016 BCT guidelines can be obtained via the Bat Conservation Trust <u>http://www.bats.org.uk/pages/batsurveyguide.html.</u>

Bat Emergence Survey Requirements

Extracted from - Table 7.3 & 7.1 BCT Recommended Minimum Survey

Low roost suitability	Moderate roost Suitability	High / Confirmed roost suitability
One Survey visit – One dusk or dawn re-entry	Two separate survey visits – One dusk and one dawn re-	Three separate survey visits – at least one must be a dawn re-entry and one
survey	entry survey	a dusk emergence, the other can be either.

Structures that have been categorized as low potential can be problematic and the number of surveys required should be judged on a case by case basis. If there is a possibility that quiet-calling late-emerging species are present, then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

Multiple survey visits should be spread out to sample as much of the recommended survey period as possible, it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

EMERGENCE – RE-ENTRY Survey Dates

		•
May to August	May to September	May to September
(structures)	With at least one between May	With at least two, between May and
No further survey	and August	August
required (trees)		

September surveys are both weather and location dependent. Conditions may become unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season. Multiple survey visits should be spread out as much as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more, unless there are specific ecological reasons for the surveys to be closer together (for example a more accurate count of a maternity colony is required but it is likely that the colony will soon disperse) if there is potential for a maternity colony then consideration must be given to detectability. A survey on 31st August followed by a mid-September survey is unlikely to pick up a maternity colony. An ecologist should use their professional judgement to design the most appropriate survey regime.



Appendix 5: Bat Species

1	Alcathoe	Myotis alcathoe
2	Barbastelle	Barbastella barbastellus
3	Bechstein's bat	Myotis bechsteinii
4	Brandt's bat	Myotis brandtii
5	Brown long-eared bat	Plecotus auritus
6	Common pipistrelle	Pipistrellus pipistrellus
7	Daubenton's bat	Myotis daubentonii
8	Greater horseshoe bat	Rhinolophus ferrumequinum
9	Greater mouse-eared bat	Myotis myotis
10	Grey long-eared bat	Plecotus austriacus
11	Leisler's bat	Nyctalus leisleri
12	Lesser horseshoe bat	Rhinolophus hipposideros
13	Nathusius' pipistrelle	Pipistrellus nathusii
14	Natterer's bat	Myotis nattereri
15	Noctule	Nyctalus noctula
16	Serotine	Eptesicus serotinus
17	Soprano pipistrelle	Pipistrellus pygmaeus
18	Whiskered bat	Myotis mystacinus