

**Bat and Bird Surveys for
Shenstone Property Limited.
Properties at north side,
176 Birmingham Road,
Shenstone Wood End,
LICHFIELD,
Staffordshire,
WS14 0NX.**

**Map Ref SK 1102 0134
1st February 2024.**

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Natural England License Number 2016-23395-CLS-CLS

Natural England Bat Low Impact Class License

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Summary.

- **There is no evidence of bats using the garage or single storey dwelling extension as a place of shelter.**
- **There are no roosting opportunities for bats in the garage or the single storey dwelling extension.**
- **There is no evidence of birds using the garage or the single storey dwelling extension for nesting. There is a nesting opportunity in the open store to the side of the garage.**
- **A new roosting opportunity for crevice dwelling bats should be created by installing an integrated bat box into one elevation of the new dwelling.**
- **New nesting opportunities for birds can be created by installing two concrete bird boxes into the new dwelling.**
- **A method of working should be put in place with contractors to ensure that in the event of bats being found they will not be injured.**

Introduction.

An inspection and building survey for bats was requested by C T Planning, on behalf of their client, Shenstone Property Limited. The survey was to be undertaken in relation to the submission of a planning application to Lichfield District Council to demolish the existing garage and single storey extensions to 176 Birmingham Road and replace them with new dwellings. The property was visited on the 31st January 2024.

Temperature; 4°C

Wind; 1-2 Beaufort scale.

Cloud; 8/8



Legislation concerning bats.

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 and Habitats Regulations 2010 (better known as the Habitats Regulations) implements the Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora. All bats are listed as 'European protected species of animals'

Under Regulation 41 of the Conservation of Habitats and Species Regulations 2010 it is illegal to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species (EPS),
- Deliberately disturb wild animals of an EPS (affecting ability to survive, breed or rear young) – disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young,

- Deliberately disturb wild animals of an EPS (impairing ability to migrate or hibernate) – disturbance of animals includes in particular any disturbance which is likely to impair their ability in the case of hibernating or migratory species to hibernate or migrate,
- Deliberately disturb wild animals of an EPS (affecting local distribution and abundance) – disturbance of animals includes in particular any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong,
- Deliberately disturb wild animals of an EPS (whilst occupying a structure of place used for shelter or protection) – intentionally or recklessly disturb any wild animal while it is occupying a structure or place which it uses for shelter or protection,
- Damage or destroy a breeding site or resting place of a wild animal an EPS.

Under the Wildlife and Countryside Act 1981 (as amended) it is legal to:

- Recklessly or intentionally kill, injures or take any wild animals included in Schedule 5.
- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection,
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.

Legislation concerning birds.

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended). Under this legislation it is an offence to:

- kill, injure or take any wild bird
- take, damage or destroy the nest of any wild bird while it is in use or being built
- take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

Methodology for bats.

The building surveys have been undertaken in accordance with Bat Surveys for Professional Ecologists- Good Practice Guidelines, 2016, the Bat Conservation Trust. Surveys of the buildings were undertaken during the daytime to look for evidence of bats using the buildings, or likely roosting sites. The evidence of bats using a building as a place of shelter can include bat droppings, grease marks, urine stains or actual bats. This evidence is then considered when planning evening emergence counts and activity surveys, using bat detectors. These surveys provide evidence of where bats are roosting and activity across the site by foraging or commuting bats.

The Bat Surveys for Professional Ecologists- Good Practice Guidelines, 2016, specify that emergence surveys are undertaken dependent upon the roost potential of the buildings on the survey site, as set out below;

Roost potential.	Number of surveys.
High.	3
Low to moderate.	2
Low.	1

The surveys are started at sunset, with bats emerging from roosts at different times, dependent upon the species, and continued for two hours. Emergence surveys can only be undertaken from the beginning of April to the end of September when bats are active. The optimum period of undertaking surveys is the beginning of May to the end of August. Their emergence is dependent upon the weather, the bats only leaving their roost on warm nights when there will be sufficient insect prey around to make flight worthwhile. While bats will emerge in light rain and moderate winds, the surveys would not be undertaken when there is heavy rain and/or strong winds as this would not provide reliable data upon which to base the conclusions of the surveys. Mild weather in April and October will produce bat activity, particularly providing information on forage areas, commuting routes and pre-maternity group roosting.

Any trees on site are surveyed following the methodology set out in the Bat Tree Habitat Key, Henry L Andrews et al 2013, which produces a key for identifying Potential Roost Features in trees and their likelihood of being used by bats. Trees on any site being surveyed will have Potential Roost Features identified from ground level surveys and highlighted in the report.

Bat records and habitats.

A search of public records has revealed the presence of;

Eptesicus serotinus
Myotis daubentonii.
Myotis b. randtii/mystacinus.
Myotis mystacinus.
Myotis nattereri.
Nyctalus noctula.
Pipistrellus nathusii
Pipistrellus pipistrellus.
Pipistrellus pygmaeus.
Plecotus auritus.

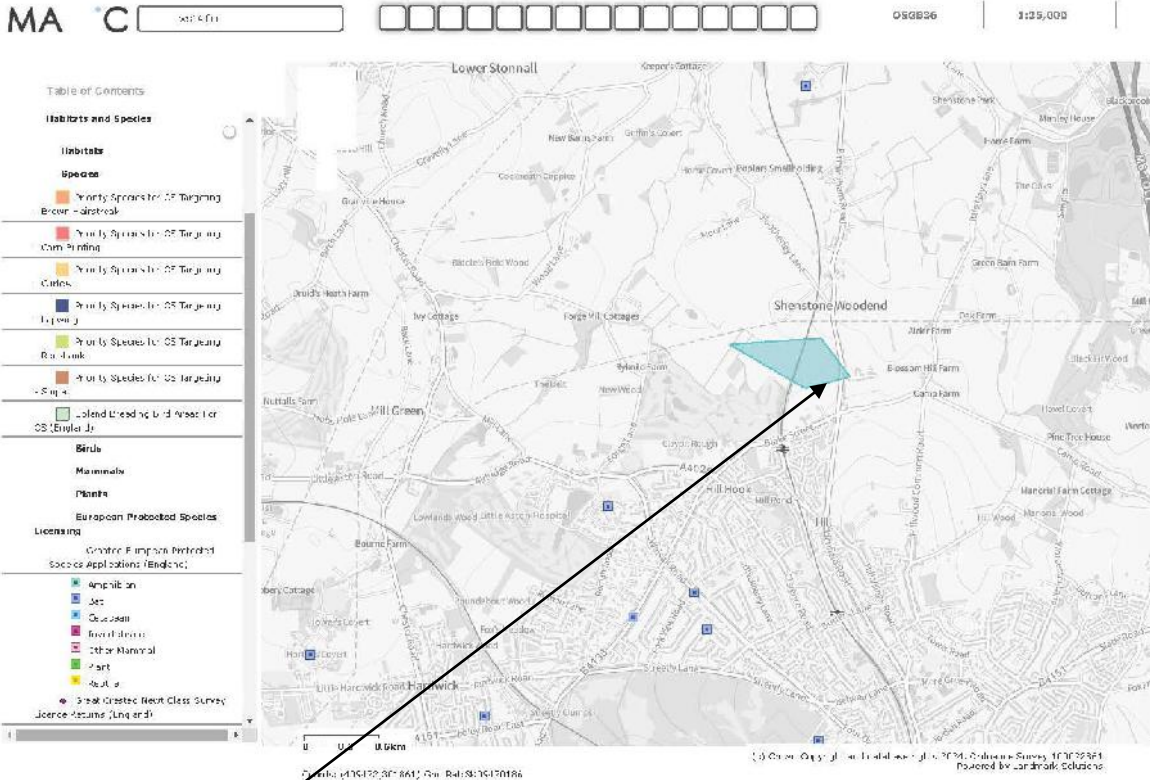
A search of the DEFRA MAGIC Dataset shows that there are no habitats adjacent to the site which of a special nature conservation status or significance. There are small areas of Deciduous Woodland to the west and southwest of the site which are on the Priority Habitat Inventory together areas of Young Trees. To the northwest is an area of Floodplain Grazing Marsh on the Priority Habitat Inventory. The development of the property will have no impact on these sites.



176 Birmingham Road.

A search of the DEFRA MAGIC Dataset shows that there have been a number of European Protected Species licenses granted for bats in the local area.

Species.	Destruction of or damage to a breeding site for bats.	Destruction of or damage to a resting place for bats.
Common pipistrelle, Brown long eared, Natterer's bats	Yes	Yes
Common pipistrelle, Soprano pipistrelle, Whiskered bats.	Yes	Yes
Brown long eared bats.	No	Yes
Brown long eared bats.	No	Yes
Whiskered bats.	No	Yes
Common pipistrelle bats.	No	Yes
Common pipistrelle, Brown long eared bats.	No	Yes
Brown long eared bats	No	Yes
Brown long eared, Soprano pipistrelle bats.	Yes	Yes



Constraints.

The building survey was undertaken in the winter when evidence of bats internally can still be seen but external evidence may be unavailable after heavy rain. surveyor does not believe that the weather masked any evidence or access points for bats. There were no constraints to the surveyor for access in the building survey for bats.

Building Survey.

The buildings to be surveyed consisted of a single storey flat roofed garage and a single storey flat roofed extension to the existing dwelling.

2020.



2024.



2020.



2024.



The properties are situated in a residential area with agricultural land surrounding the area of Shenstone Wood End. The village is situated close to the larger urban area of Little Aston and Four Oaks. The village consists of a small number of properties fronting Birmingham Road and one side road.

The results of the building survey are presented as the likelihood of bats using an area/feature;

- None.** Bats are unlikely to use the feature/area in any way.
- Poor.** Bats may use the feature/area but it is not thought to be likely.
- Possible.** The feature/area provides an area that may be used by bats but no direct evidence of occupation was found.
- Definite.** Clear evidence of the use of a feature/area as a place of shelter, such as droppings.

Garage.

This is a single storey cavity brick garage with a flat roof. The flat roof has a hot laid bitumous roofing membrane. There has been no change in bat roosting or bird nesting between 2020 and 2024.

2020.



2024.



2020.



2024.



There is a timber fascia board at the top of the brickwork with the bitumous roofing membrane laid over the top. There is no access for bats under the roofing membrane or under the fascia boards.

2020.



2024.



The garage offers no places of shelter for bats.

There is a small flat roofed store on the northern elevation that is open to weather penetration and offers no places of shelter for bats due to the weather penetration. The roof has corrugated fibre cement roof sheets with a bituminous underfelt and hard board ceiling beneath.

2020.





2024.



The store area offers no places of shelter for bats.

Bat roosting opportunities; None.

Single storey dwelling extension.

This is a single storey solid and cavity brick extension to the adjacent dwelling. There is a hot laid bitumous membrane roof covering on the extension with a feature pitched roof at the front.

2020.



2024.



The plain tiles on the front elevation feature have bonnet tiles at the hip and half round ridge tiles at the apex.

2020.





2024.





There is no access under the plain, ridge or bonnet tiles for bats. The flat roofed area behind the feature tiled area has a brick parapet with no access for bats.

2020.



2024.



The extension to the rear has a flat roof with a timber fascia and in some areas a small soffit. Water penetration has begun to rot the rear area of fascia board but there is currently no access for bats.

There is no access for bats under the rear extension flat roof.

Bat roosting opportunities; None.

Dwelling.

The dwelling has timber fascia boards and soffits above the single storey extension. There are no places of shelter for bats in the soffit areas and the proposed demolitions will not affect any places of shelter for bats. There is mortar coming loose from the bonnet tiles above that will; provide a place of shelter for bats but this area will not be affected by the proposed demolition of the single storey extension.

2020.



2024.



Birds.

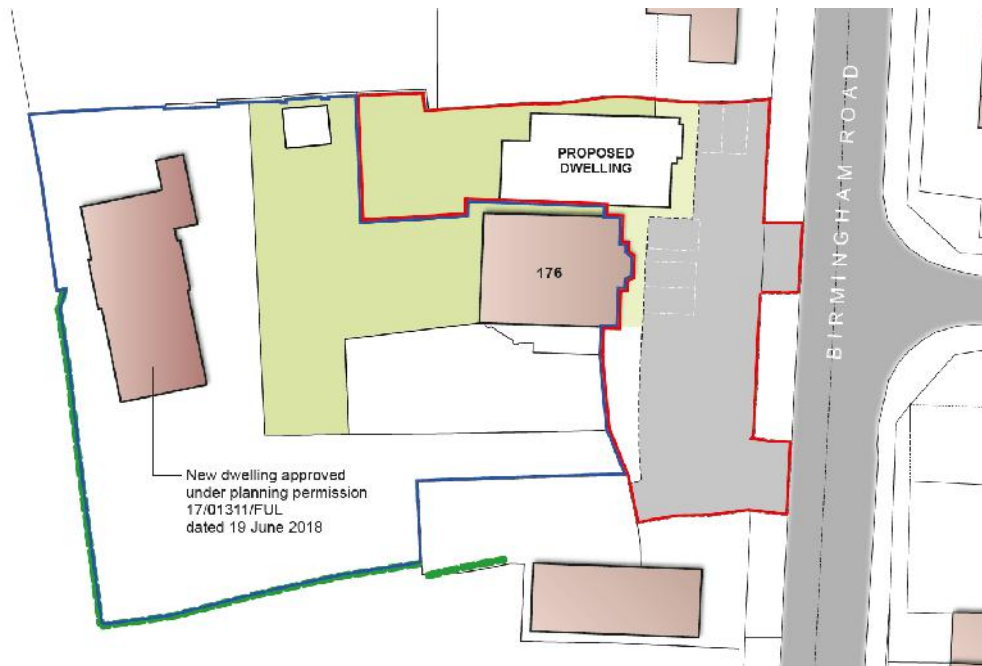
There was no evidence of birds nesting or perching in the garage or the single storey extension to the dwelling. The demolition of these areas will not affect nesting birds.

Conclusion.

The demolition of the garage and the single storey extension to the dwelling will have no impact on a place of shelter for bats. There are no bat roosting opportunities in these areas.

There is no evidence of bird nesting and there are no places for birds to nest.

The proposal is to demolish these areas and build a new dwelling.



Should planning permission be granted there will be an opportunity to create Biodiversity Enhancements in this area.

Impacts on bats.

The demolition of the single storey parts of the property will have no impact on bats. The method of working below must be followed to ensure that the potential for disturbing or harming bats, however small, is minimized and avoided.

There is no loss of habitat from the proposed development and there will be no impact on habitat, forage or commuting routes from the proposed development.

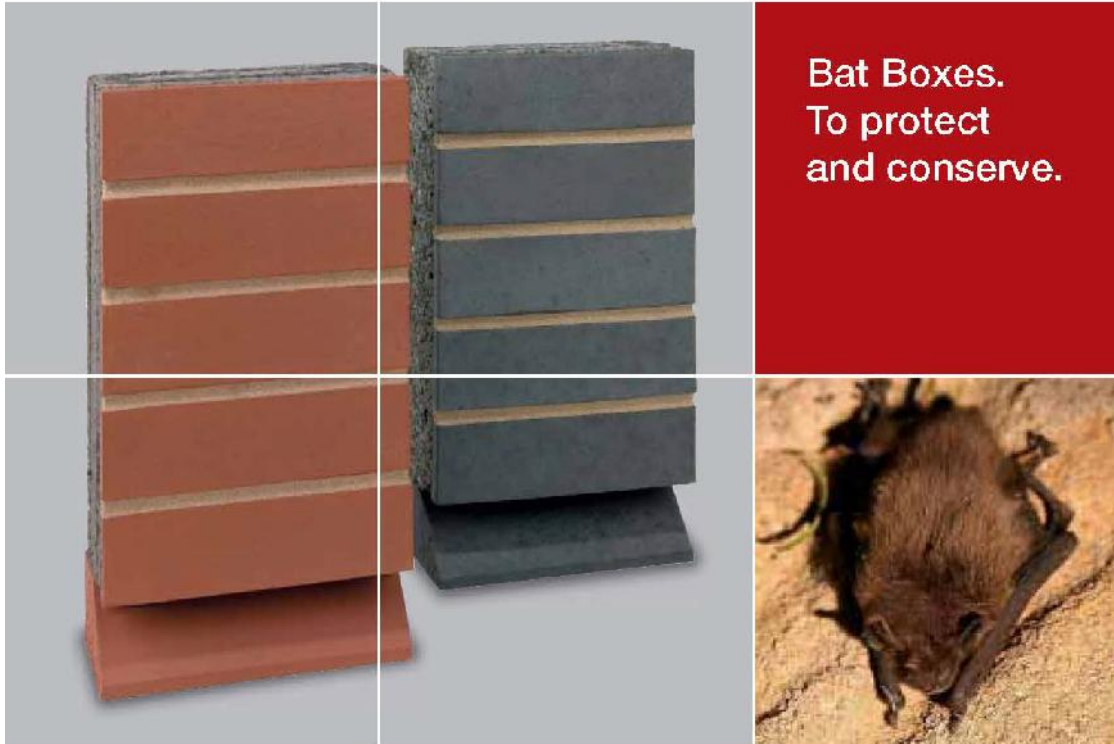
Enhancements for bats.

Records show that there are populations of crevice dwelling bats locally. New roosting opportunities for these species of bats can be created when the new dwelling is built if planning permission is granted, to meet the requirements of the National Planning Policy Framework (2023).

An integrated bat box can be installed at the gable apex of the northern elevation of the new dwelling, should planning permission be granted. These are constructed from brick or concrete blocks and are built into the outer leaf of brickwork. They can have facing bricks or be rendered. They provide no access to the cavity wall.



They are made by a number of companies including Wienerberger, Ibstock Brick, Habibat and Schwegler.



Birmingham and the Black Country
Cumbria
Derbyshire
Devon
Durham
Leicestershire
Staffordshire
Sussex

Wienerberger has worked closely with EcoSurv Ltd. to create a brand new range of eco-friendly bat boxes. Compared to existing bat boxes on the market, the Wienerberger bat box is larger and features an innovative arrowhead structure which helps maintain the bats body temperature in order for them to flourish.

The bat box is designed to encourage the most popular bats found in the UK, such as Pipistrelles, Natterers, Whistled and Brandts bats. Other bat box options are available for other breeds via special order.

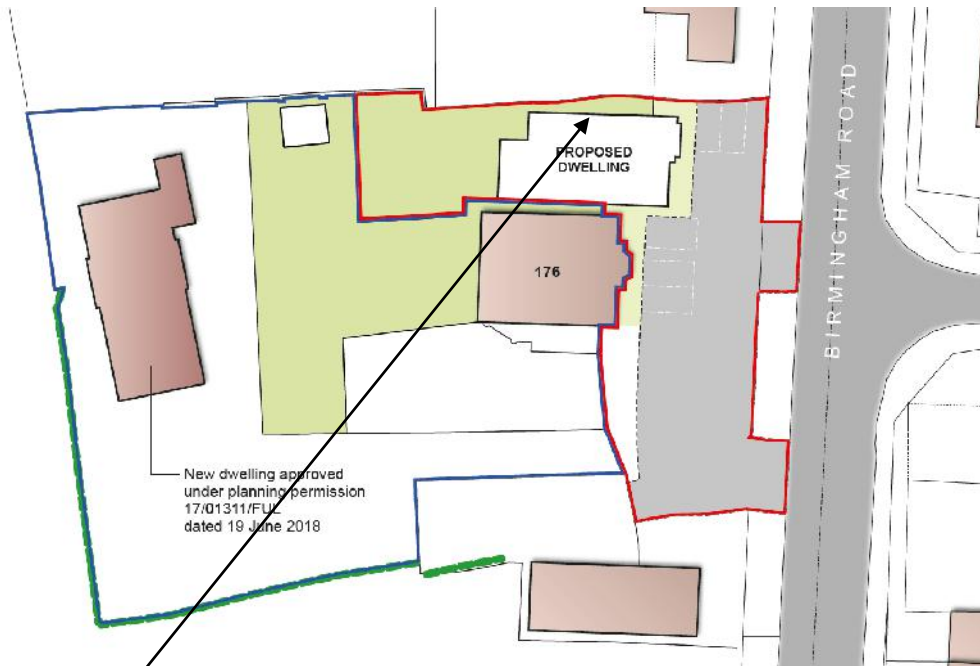
Bats are an important part of our natural landscape. The latest legislation to protect bat species and their habitats has now brought the UK in line with the rest of Europe and made bat conservation mandatory on any new building project where bats may exist.

Our bat boxes also help towards gaining additional ecological points to meet the requirements of the Code for Sustainable Homes.

Our bat boxes are currently available in Staffordshire Smooth Red and Smooth Blue but can also be manufactured to any colour in our range.

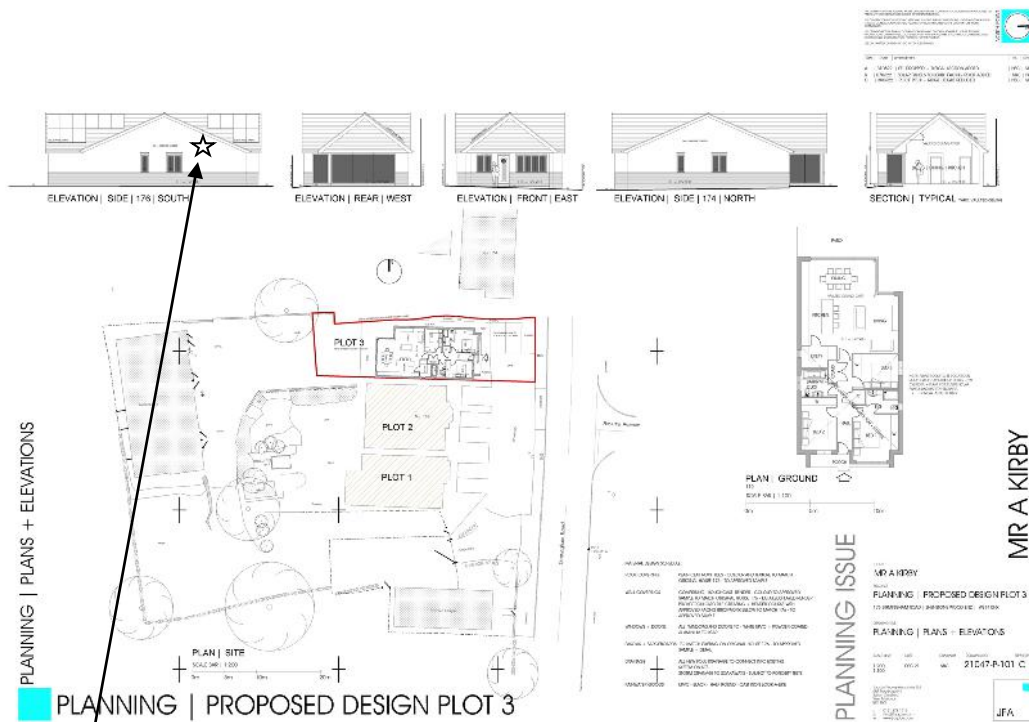
Further detailed information on Wienerberger bat boxes and bat conservation is available at www.brick.co.uk/batbox or contact Design Services on **0161 491 8200**

A location away from doors and windows has been chosen so that droppings falling from the bat box will not cause a nuisance for the occupiers.



Integrated bat box.

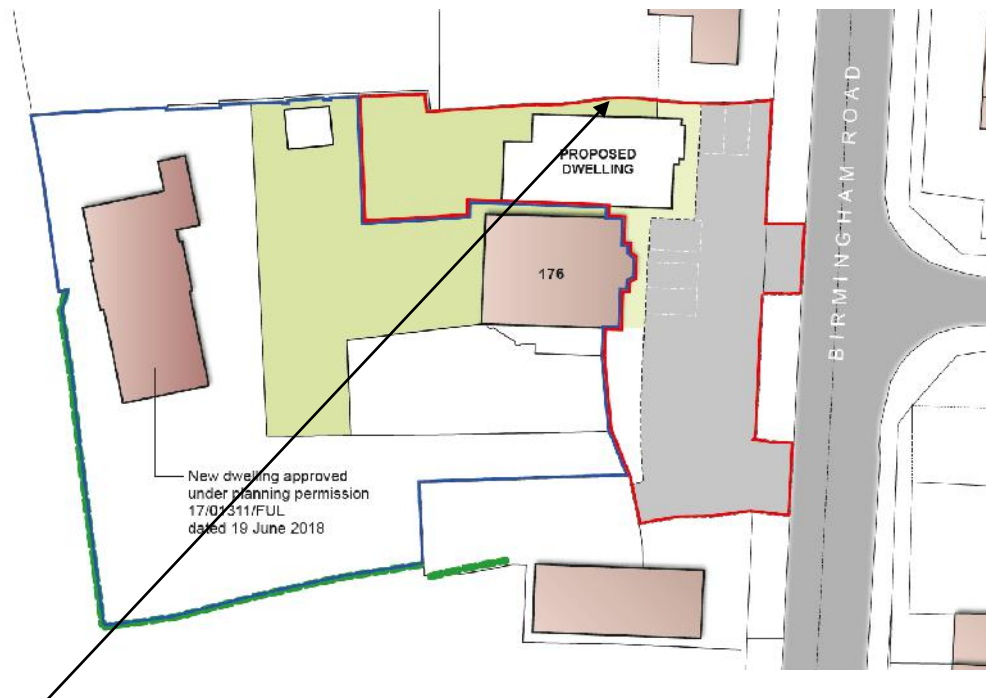
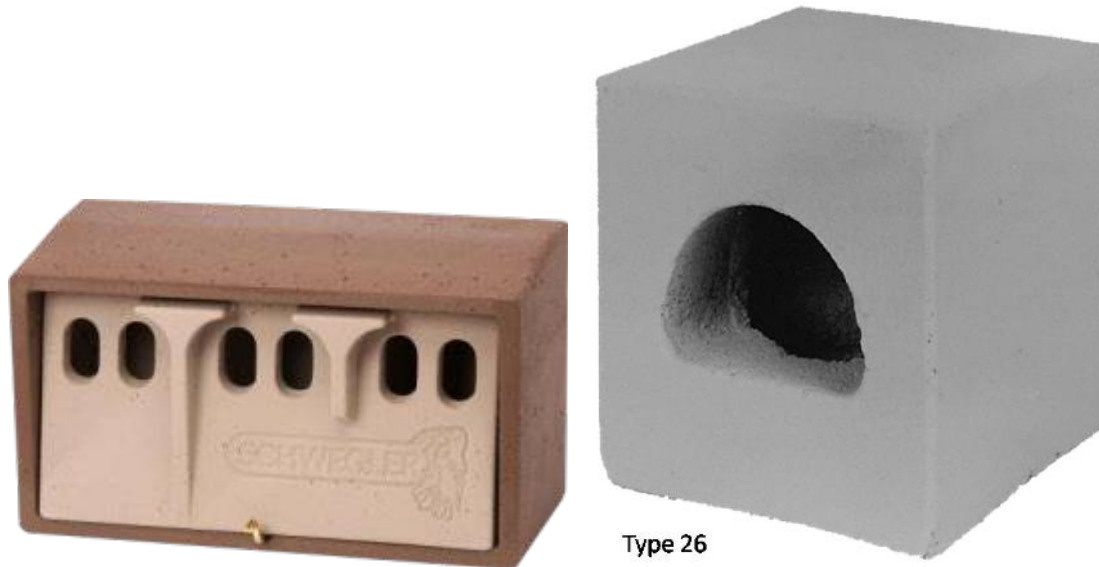
There should be no direct illumination of the new bat roosting opportunities. Lighting around the site will be by low wattage down lights at low level to provide security and safety lighting for the dwelling and service area. This lighting will be set no higher than the head height of the ground floor windows and will minimise the possible disturbance to bats in this area. Any security lighting will use PIR's to ensure they turn off automatically once the movement has ceased.



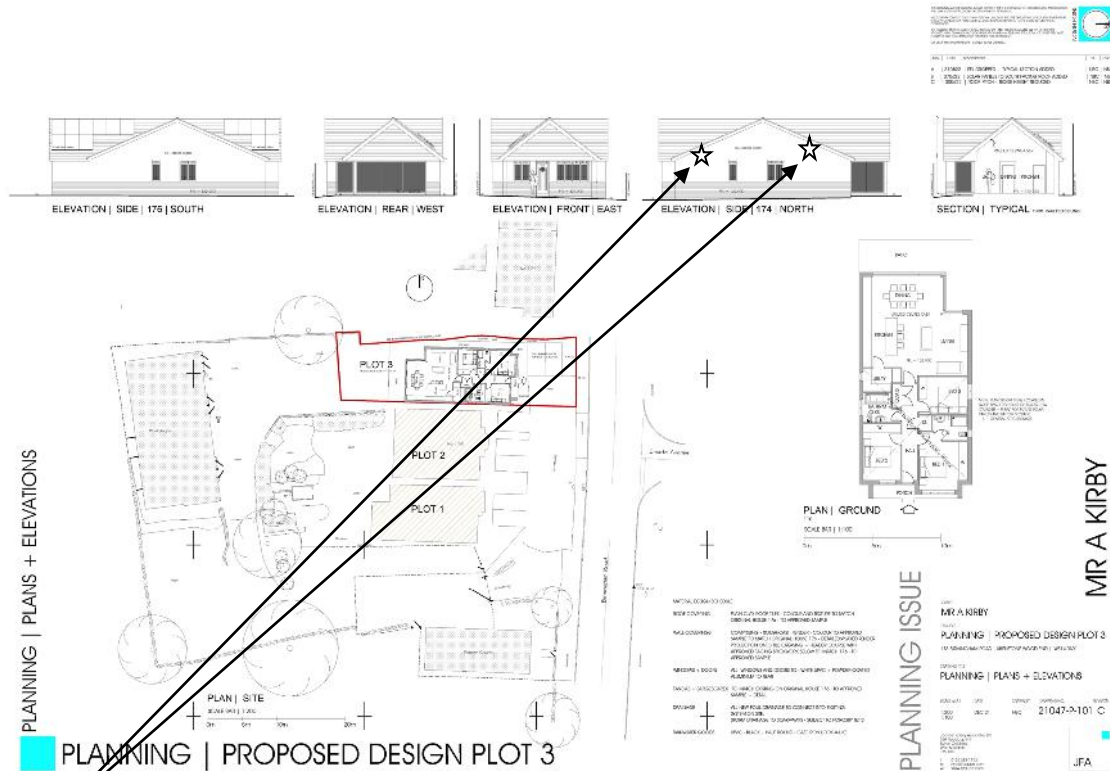
Integrated bat box.

Enhancements for birds.

New nesting opportunities for birds can be created by installing two Schwegler (or similar) concrete bird boxes in the northern elevation at the eaves. These will provide new nesting opportunities. One should be a Sparrow terrace and one a box that is less species specific.



Bird box locations.



Bird boxes.

The method of working has been set out so that it can printed and handed to contractors on site.

Method of working.

There is no evidence of bats using the buildings as a place of shelter but it is possible that individual bats may use the possible roosting sites uncovered during demolition at different times of year. Because of this possibility a method of working must be put in place when there are contractors on site. This would cover work to the roof or demolition where there was access for bats.

The common species of bats that are likely to roost in buildings of this nature and are evidenced from the regional records, are crevice dwelling bats, such as the Common Pipistrelle. These bats are small and can use accesses as little as 50mm x 20mm. when found in buildings they appear no bigger than a thumb and have dark brown fur.



It is common to find bat droppings in places used by bats. These are small and often confused with mouse droppings. It is possible to distinguish between them as mouse droppings are hard whereas bat droppings, being only insect remains, crumble when rubbed between the fingers.



The other species of bat that may possibly be found on site is the Brown Long Eared bat. These are a medium sized bat, larger than a Pipistrelle with very long ears that meet in the centre of the head. These bats may be found in crevices in the brickwork, behind ridge boards or in splits in the larger roof timbers.



Before the roof is stripped from the building all splits/mortice joints in the beams/purlins/trusses should be checked by the bat surveyor and closed off if there is no occupation. If a bat is found in the split/mortice joint then a one way gate is to be fitted to allow the bat to emerge but not return. The one way gate can then be removed after two days of fine night time weather when the bat can have left and not returned. This work must be done in the period September/October/November or March/April in any year prior to the commencement of the development. This will ensure that bats have vacated the possible roost sites before the roof is removed and before any timber treatment is undertaken.

Other methods for the work on the property are as follows.

- When tiles are removed they should be lifted away from the roof and not slid or twisted to avoid injuring any bats roosting beneath the tiles.
- Ridge tiles should be lifted without sliding so as to avoid injuring any bats roosting beneath them.
- If a bat is found under a roof tile or ridge tile, the tile should be carefully replaced and work in that area stopped until such time as a licensed bat worker can attend the site.
- The bat can then be removed to a place of safety until such time that it can be released at night.
- The demolition of any part of the building where bats could potentially roost should be by hand. This includes the removal of roof tiles, ridge tiles, soffits, gutter fascia boards and hanging tiles. If a bat is found the work should be stopped immediately and a bat worker called to come and deal with the bat. The bat should not be handled except by a licensed bat worker. Any bats found will be taken into care for release on site later dependent upon the time and weather.
- Bats discovered during the winter period will be taken into care, feed and kept healthy until they can be released on site in the Spring.
- Bats will not be released on site until evening temperatures are consistently above 6°C, at least three nights, the wind is light, and there is no rain.

- Bats taken into care over the winter will be released to the new roost opportunities in Spring if they are available using the same release criteria as above.
- Where cavities or crevices are to be filled or re-pointed, they should be checked first using a torch. If there is any doubt about whether a bat could be present the bat specialist should be called to undertake investigations and to fit a one way gate if necessary so that bats can leave the crevice but not return.

Legislation concerning bats.

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 (better known as the Habitats Regulations) implements the Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora. 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 significantly 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.

The fine for committing an offence is £5,000 per bat.

If a bat is found on site, work should stop in the area where the bat was found and the contractor should call the Bat Consultant; S. Christopher Smith 07967636115.

Breathable Roofing Membranes-Info Sheet

What are they?

- ✦ Traditional roofing felt was bitumen based
- ✦ Modern membranes are made from very fine and long plastic fibres that are spun into thin sheets. They be single ply or have various layers to provide a more complex membrane.
- ✦ They are known as Breathable roofing membranes or Vapour permeable underlay's (BRMs/VPUs)

Who Makes them?

- ✦ When most people talk about BRMs, they will call it Tyvek as this is the most famous brand name
- ✦ There are over 70 products in the UK alone, made by 20+ companies – never assume the product is Tyvek unless there is proof.



Why are they used?

- ✦ Modern houses are designed to be more energy efficient, meaning they tend to be warmer.
- ✦ Along with human activities this means increased levels of water vapour in the air
- ✦ When this passes up into the cold roof space, it forms condensation, which can lead to problems
- ✦ In the past gaps would have been left near the ridge and eaves to allow ventilation, but increased insulation often means this isn't possible. A breathable membrane aids this as it allows water vapour to pass out of the loft into the external air

Potential Problems

- ✦ There have been reports of bats becoming entangled in fibres pulled from the membranes
- ✦ Possibility of Temperature and humidity change
- ✦ Alot of membranes are white or brightly coloured

Advice

- ✦ **At present we cannot recommend specific brands that are considered safe for use in bat roosts, as such it is recommended that bitumen felt be used where possible**
- ✦ It is not against the law not to install a BRM
- ✦ If the planner insists on a BRM, suggest a dark coloured and reinforced membrane

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Bats of Britain and Europe, C. Dietz and A. Keifer, 2016.



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S.Christopher Smith MRICS MSc CEnv.

Appendix 1.

Roost Types as designated by Natural England and the Bat Surveys for Professional Ecologists, Good Practice Guidelines.

- A. Day roost: a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.
- B. Night roost: a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.
- C. Feeding roost: a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.
- D. Transitional / occasional roost: used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
- E. Swarming site: where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites
- F. Mating sites: sites where mating takes place from later summer and can continue through winter.
- G. Maternity roost: where female bats give birth and raise their young to independence.
- H. Hibernation roost: where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.
- I. Satellite roost: an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.
- J. Other – Explain what the roost type is if not one of the above (it is recognised that roost types are interchangeable and not always easy to classify according to the nuances of certain species).