Preliminary Bat Roost Assessment

Site – Toat Farm, Itchingfield, RH13 0PB

Client – Mark Alford Design

Revision – v1

Author – Alex Rosenfeld (*QCIEEM*)

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Contents

Summary

Mark Alford Design has commissioned a Preliminary Bat Roost Assessment and Ecological Impact Assessment for proposals at Toat Farm, Itchingfield, RH13 0PB *(grid refence: TQ12292907, hereafter referred to as 'the site'*).

The proposals are for the conversion of a barn to a habitable living space.

A Preliminary Bat Roost Assessment was carried out on the 27th November 2024 by Alex Rosenfeld (*QCIEEM)*.

The proposals area consists of an open sided barn with concrete parking area. The wider landholding consists of well-tended grass garden, with shrubs, a pond, woodland and mature trees. A period farmhouse sits in the middle of the site.

The site offered **'moderate' value** for roosting bats within the barn (B1). The main house (B2 - to be unaffected by works) is of **'high' value** to roosting bats. The wider site is of **'moderate' value** to foraging and commuting bats.

The site lies within the 12.0km buffer zone of The Mens SSSI, SAC (8.8km southwest).

The site boundaries offered some '**low' value** for reptiles and amphibians.

The site is of '**low / negligible**' **value** to GCN.

The site is of '**high' value** to nesting birds.

Due to the barn's value for roosting bats, a series of 2no. bat emergence surveys are required to establish exactly if and how bats are using the building. The bat surveys are to be undertaken between mid-May – September (inclusive) with at least one survey undertaken between May – August (inclusive). The surveys must be undertaken at least 2 weeks apart from each other.

When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon designated sites, habitats or protected species in accordance with planning policy and once enhancements are considered, would result in a minor gain of onsite ecology. The proposals would therefore accord with the relevant Local Plan Policies.

1.0 Introduction

1.1 Mark Alford Design has commissioned a Preliminary Bat Roost Assessment and Ecological Impact Assessment at Toat Farm, Itchingfield RH13 0PB (*grid refence: TQ12292907, hereafter referred to as 'the site'*). The proposals are for the conversion of a barn to a habitable living space.

1.2 A Preliminary Bat Roost Assessment was carried out on the 27th November 2024 by Alex Rosenfeld (*QCIEEM* with 5 years' experience).

1.3 The following ecological impact assessment report has been completed by Alex Rosenfeld (*QCIEEM)*. The purpose of the assessment has been to identify whether any potential impacts upon protected species, habitats or designated sites might occur, and to propose mitigation or avoidance measures where necessary.

1.4 Based on the results of the appraisal, recommendations for potential ecological enhancements have been provided.

Site Description and Surrounding Area

1.5 The proposals area (redline boundary) consists of an open sided barn with concrete parking area. The wider landholding (blueline boundary) consists of well-tended grass garden, with shrubs, a pond, woodland and mature trees. A period farmhouse sits in the middle of the site.

Figure No. 01 – Site location

Figure No.02 – UKHabs Map

1.6 The site is located in the village of Itchingfield, West Sussex. It is bound to the north and south by domestic dwellings. To the east runs Bashurst Hill Road. To the west is an equestrian facility.

1.7 The wider area is rural, comprised primarily of arable fields and pasture divided by hedgerows. Pockets of woodland are present. The town of Broadbridge Heath lies 1.5km northeast.

1.8 1no. pond is located onsite. 19no. ponds were noted within a 500-meter radius of the site (Appendix 2).

Proposals

1.9 The proposals are for the conversion of a barn to a habitable living space.

1.10 The barn offers '**moderate**' **value** to roosting bats. The surrounding garden is of '**moderate**' **value** to foraging and commuting bats.

2.0 Scope of Assessment

1. *Categorise habitats present on the site;*
2. *Identify habitat which may have potential for protected species;*
3. *Identify whether any signs of protected species are present on-site;*
4. *Recommend whether further surveys are required, or whether there are any relevant constraints with regards to protected species;*
5. *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;*
6. *Provide recommendations as to how the site and proposals could be enhanced with regards to protected species and habitats.*

2.1 The assessment and appraisal are considered relevant for a maximum of 18 months due to the possibility of changes in the habitats on-site and scope of proposals. Should alterations to the proposals or site occur, the ecologist should be consulted to confirm that the appraisal is still valid.

3.0 Planning Policy and Legislation

National Planning Policy

3.1 The National Planning Policy Framework (NPPF) 2023 sets out the government planning policies for England and how they should be applied. 'Chapter 15: Conserving and Enhancing the Natural Environment' states that development should be 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

3.2 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

3.3 The current Local Plan is subject to Regulation 19. Therefore, The Horsham District Planning Framework (Horsham District Council, 2015 - 2031) was used to appraise the proposals.

3.4 The Horsham District Planning Framework sets out the existing planning policies for development in the district in relation to biodiversity. Those of potential relevance to this assessment are highlighted in the table below:

Policy Reference	***Policy Text***
Policy 25: The Natural Environment and Landscape Character	*The Natural Environment and landscape character of the District, including the landscape, landform and development pattern, together with protected landscapes and habitats will be protected against inappropriate development. The Council will support development proposals which:* *1. Protects, conserves and enhances the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintains settlement separation.* *2. Maintain and enhances the Green Infrastructure Network and addresses any identified deficiencies in the District.* *3. Maintains and enhances the existing network of geological sites and biodiversity, including safeguarding existing designated sites and species, and ensures no net loss of wider biodiversity and provides net gains in biodiversity where possible.* *4. Conserve and where possible enhance the setting of the South Downs National Park.*
Policy 26: Countryside Protection	*Outside built-up area boundaries, the rural character and undeveloped nature of the countryside will be protected against inappropriate development. Any proposal must be essential to its countryside location, and in addition meet one of the following criteria:* *1. Support the needs of agriculture or forestry;* *2. Enable the extraction of minerals or the disposal of waste;*

	3. *Provide for quiet informal recreational use; or* 4. *Enable the sustainable development of rural areas.* *In addition, proposals must be of a scale appropriate to its countryside character and location. Development will be considered acceptable where it does not lead, either individually or cumulatively, to a significant increase in the overall level of activity in the countryside, and protects, and/or conserves, and/or enhances, the key features and characteristics of the landscape character area in which it is located, including;* 1. *The development pattern of the area, its historical and ecological qualities, tranquillity and sensitivity to change;* 2. *The pattern of woodlands, fields, hedgerows, trees, waterbodies and other features; and* 3. *The landform of the area.*
Policy 31: Green Infrastructure and Biodiversity	*Development will be supported where it can demonstrate that it maintains or enhances the existing network of green infrastructure. Proposals that would result in the loss of existing green infrastructure will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss and ensures that the ecosystem services of the area are retained.* *Development proposals will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. The Council will support new development which retains and /or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity through the creation of green spaces, and linkages between habitats to create local and regional ecological networks.* *Where felling of protected trees is necessary, replacement planting with a suitable species will be required.* *Particular consideration will be given to the hierarchy of sites and habitats in the district as follows:* 1. *Special Protection Area (SPA) and Special Areas of Conservation (SAC)* 2. *Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)* 3. *Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs) and any areas of Ancient woodland, local geodiversity or other irreplaceable habitats not already identified in i & ii above.* *b) Where development is anticipated to have a direct or indirect adverse impact on sites or features for biodiversity, development will be refused unless it can be demonstrated that:* 1. *The reason for the development clearly outweighs the need to protect the value of the site; and,*

	2. *That appropriate mitigation and compensation measures are provided.* *Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a HRA to determine the need for an Appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan.*

- The Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act 1981 (as amended);
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Protection of Mammals Act 1996.

3.7 All species of bat and their roosts are protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981. It is an offence to intentionally kill, injure or handle a bat, to possess a bat (live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

3.8 All UK bird species are protected against disturbance whilst occupying a nest under the Wildlife and Countryside Act 1981. Developments that could predictably disturb, kill or injure nesting birds could result in an offence. Furthermore, a number of bird species are targets of UK and Local Biodiversity Action Plans and listed as Species of Principle Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.

3.9 All other mammals receive general protection against cruelty, inhumane killing or injuring under the Protection of Mammals Act 1996.

4.0 Methodology

Desktop Study

4.1 'Magic' Maps was consulted for information pertaining to priority habitats, statutory designated sites and permitted European Protected Species Mitigation Licences (EPSML's) within a potential zone of influence of the development site.

4.2 The following potential zones of influence have been used when identifying designated sites in the local area: Local Nature Reserves (LNRs), National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) were searched for within a 2.0km radius of the site, and internationally designated sites including Special Protection Areas (SPAs), potential Special Protection Areas (pSPAs), Ramsars (Wetlands of International Importance) and proposed Ramsars (pRamsar) within a 10km radius of the site. Special Areas of Conservation (SACs) and possible Special Areas of Conservation (pSACs) within a 12km radius of the site, to account for the potential presence of SAC's designated for their bat interest, in accordance with recent guidance (SDNP, 2020).

4.3 Due to the scale and scope of proposals, a biodiversity record centre was not considered necessary.

4.4 A search was carried out to identify features of ecological interest in the area, such as water bodies and ancient woodland.

4.5 The report is written based on the following guidance:

- CIEEM Guidelines for Ecological Report Writing 2017 (CIEEM, 2017)
- CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018)
- Surveys have been carried out following the guidance sources set out in CIEEM's Good Practice Guidance for Habitats and Species (CIEEM, 2021), which include:

o CIEEM Guidelines for Preliminary Ecological Appraisal, Second Edition (CIEEM, 2017)

o CIEEM Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. Second Edition (CIEEM, 2017)

o Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023)

Site Visit

4.7 A site visit was conducted on 27th November 2024 during suitable conditions (9ºc, no rain with 100% cloud cover and a westerly breeze). Habitats were recorded broadly according to the UK-Habs Classification System as described within the UK Habitats Manual v2.01 (UKHab Ltd 2023). All habitats present on-site were recorded on a UKHab map (*Figure No. 01 – Site Habitat Plan*).

4.8 During the survey any constraints with regard to protected species were considered; potential for impacts upon protected species even when evidence of such was not noted at the time of survey.

4.9 Points of interest for protected species have been plotted into the Site Habitat Plan and within target notes. Protected and Notable Species considered as part of this assessment include but are not limited to:

- *Bats – foraging, commuting, roosting, swarming and hibernating;*
- [redacted]
- *Dormice Muscardinus avellanarius – nesting and commuting;*
- *Great Crested Newts Triturus cristatus and other Amphibians such as Common Toads Bufo bufo – terrestrial active and hibernation habitat and aquatic habitat, including commuting;*
- *Birds – nesting, foraging and wintering;*
- *Reptiles – terrestrial active and hibernation habitat;*
- *Rare or Notable Invertebrates;*
- *Rare or Notable Plants;*
- *Water Voles Arvicola amphibius – foraging and shelter habitats;*
- *Otters Lutra lutra – foraging and shelter habitats;*
- *White-clawed Crayfish Austropotamobius pallipes;*

4.10 The structure and trees were inspected for features conducive to bat and bird roosting. The bat roost assessment was conducted following the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines (2023). Any evidence of bats such as grease marks, bat droppings, feeding remains and suitable cavities were noted.

4.11 Structures were assigned levels of bat roost suitability, ranging between negligible and high for buildings. Trees are assessed either as having no suitability, PRF-I (only able to support individual bats) and PRF-M (being able to support larger numbers of bats and therefore maternity colonies).

4.12 Due to the site visit being carried out over one day, it is possible that some signs of protected species may not be apparent within this short timeframe. This is a constraint

recognised within the Survey Guidelines and all reasonable effort has been made to identify evidence of protected species. The further revisits added certainty to the original findings.

Ecological Impact Assessment

4.13 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

4.14 Each ecological feature within the site has been considered within a defined Geographic context such as:

- International and European;
- National;
- Regional;
- County;
- District;
- Local;
- Site Level;
- Negligible.

4.15 Based upon CIEEM guidance, value was determined with reference to the following factors:

- Its inclusion as a Designated Site or other protected area;
- The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);
- The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);
- The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;
- The sites social and economic value.

4.16 Specifically in the case of bats, the impact assessment has been conducted in accordance with the recently published Bat Mitigation Guidelines (Reason and Wray 2023). Other relevant guidelines such as the Dormouse Conservation Handbook, Great Crested Newt Mitigation Guidelines and Froglife Advice Sheet for Reptiles were consulted as appropriate.

5.0 Constraints

5.1 During the assessment, no clear view was obtainable of the southern aspect of the barn roof. However, it was considered that a sufficient assessment was made from the obtained views to make an informed decision as to the necessity for further surveys.

6.0 Baseline Ecological Conditions

Desktop Study

Designated Sites and Habitats within 12.0km

6.1 The table below is included to allow the ecological context of the site against that of the wider area. This allows decisions regarding habitat change and protected species to be considered. The habitats of the protected sites listed below may not represent that of the site and may not be affected by proposals.

Table 1: Statutory Protected Designated Sites Within the Zone of Influence

Site Name	***Reason for designation***	***Distance from site***
The Mens SSSI, SAC	*The Mens remains as one of the most extensive examples of Wealden Woodland in West Sussex. It is important for its size, structural diversity and the extremely rich fungal and lichen floras which occur here. The wood supports a diverse community of breeding birds, and is the locality of a nationally endangered species of fly.*	*8.8km SW*

6.5 No non-statutory designated sites were noted within a 1.0km radius of the site.

6.6 The closest area of 'Local Green Space' is located 2.3km east.

6.7 As the site lies within the 12.0km buffer zone of The Mens SSSI, SAC all impacts upon bat flightlines and commuting routes must be assessed.

6.8 Due to the nature of the proposals, the LPA will not have to consult with Natural England.

Habitats

Desk Study

6.9 Within 1.0km of the site there are Priority Habitats of Deciduous Woodland and Traditional Orchards. A section of deciduous woodland lies at the western edge of the site, away from the works area.

Site Assessment

6.10 The site is given over to the following habitats.

U1b5 – Building

6.11 The barn is of redbrick and timber construction with a concrete floor. Internally, the rafters and joists were of timber. The roof is laid with clay tiles. No internal roofing membrane was noted on the eastern half of the barn. The western half of the barn had an internal roofing membrane. A plastic gutter ran along the edge of the roof.

6.12 No internal roof space existed.

6.13 The main house (to be unaffected by works and outside the redline boundary) was of redbrick construction with hanging tiles. The roof was laid with clay tiles, and two redbrick chimneys were noted. Overall, this habitat was of '**negligible'** ecological value.

U1b6 – Other Developed Land

6.14 A tarmac driveway ran from Bashurst Road up to the house.

6.15 The hardstanding by the barn was of various construction types. The majority of the area was of compressed, crushed aggregate. A smaller section of concrete was also present. A flagstone path ran from the driveway to the rear (south) of the barn. Overall, this habitat is of '**negligible'** ecological value.

G3c, 32 – Other Neutral Grassland with Scattered Trees

6.16 The majority of the wider landholding consisted of well-tended grassland of low species composition. Species included grasses such as perennial ryegrass (*Poa annua),* red fescue (*Festuca rubra*) and other species including daisy (*Bellis perennis*), dandelion (*Taraxacum sp.*) and self-heal (*Prunella vulgaris*).

6.17 Within the grassland was a series of mature trees, species included English Oak (*Quercus robur),* beech (*Fagus sylvatica) and silver birch (Betula pendula).* Overall, this habitat was of '**site' value** only.

W1g – Other Broadleaved Woodland

6.18 The western end of the site was designated as Priority Habitat – Deciduous Woodland. This habitat comprised of species including birch (*Betula pendula*), beech and English Oak. The trees all appeared to be mature and semi-mature. Overall, this habitat is of '**Local' value.**

6.19 Within the garden lay areas of shrub including Mexican orange blossom (*Choisia ternata)* and ornamental roses *(Rosa sp.*). Overall, this habitat was of '**site' value.**

7.0 Protected Species Assessment

Bats

Desk Study

7.1 1no. granted European Protected Species Licence is noted within a 2.0km radius of the site (1.5km to the southeast). The licence (Case Reference: 2015-8372-EPS-MIT) regarded the destruction of a resting place for BLE (*Plectorus auritus)* and common pipistrelle (*Pipestrellus pipestrellus)*. It was active until 2020.

7.2 NBN Atlas states there are records of Common and nathusius's pipistrelle (*Pipistrellus pipistrellus* and *Pipistrellus nathusii*), serotine (*Eptesicus serotinus*), soprano pipistrelle (*Pipestrellus pygmaeus*), Bechstein's (*Myotis bechsteinii*) and western barbastelle (*Barbastella barbastellus*) within a 2km radius.

Site Assessment - Buildings

7.3 No signs of bat were noted during the assessment.

7.4 The roof of the barn (B1) contained many areas of lifted and cracked tiles which were of value to roosting bats. Some small areas of the roof were covered in moss which could reduce the potential for bats to enter the crevices. However, there were sufficient gaps not covered in moss to still create suitable entry and exit points.

7.5 The western half of the roof had an internal roofing membrane to the roof tiles which would increase the potential for bats as it creates extra opportunities for bats to roost.

7.6 The eastern half of the roof had no internal membrane but more lifted and cracked tiles, all of value to roosting bats.

7.7 The gabled ends of the barn appeared to be well sealed between tile and timber sides.

7.8 Internally, the wooden rafters provided some potential roosting spots, however the constant stream of light into the barn almost nullifies the value of this feature.

7.9 The site lies within the 12.0km buffer of The Mens SAC which is considered of value for foraging and commuting barbastelle and Bechstein's bat. It is considered the barn onsite could provide roosting value to barbastelle bat.

7.10 Overall, the barn was of '**moderate' value** to roosting bats.

7.11 The main house (B2) was of '**high' value** to roosting bats. Multiple areas of lifted and cracked roof tiles were noted. In addition to multiple areas of lifted hanging tiles. The main house is not to be affected by works and outside of the redline boundary.

Foraging and Commuting

7.12 The wider land holding contained several mature trees, in addition to an area of woodland at the western end of the site. The location of the site means there is very limited light pollution, increasing the value of the area to bats.

7.13 The woodland at the rear of the site is connected to other treelines and woodlands within the wider area. The grassland is of lower value to bats due to its well-tended nature but is surrounded by good foraging and commuting habitat. Overall, the wider landholding is of '**high' value** to foraging and commuting bats. No commuting or foraging areas are to be removed.

Birds

Desk Study

7.14 Numerous bird species are present in the local area, including those which utilise garden and hedgerow habitats. Species which could utilise the hedgerow and shrub to nest include song thrush (*Turdus philomelos),* blackbird *(Turdus merula)*, wren (*Troglodytes troglodytes*) and robin *(Erithacus rubecula).*

Site Assessment

7.15 An old swallow nest was noted within the barn during the bat roost assessment. There is a low potential for species such as hose sparrow (*Passer domesticus)* to build a nest within the guttering, although disturbance within the area is probably too constant.

7.16 The wider landholding is of '**site' value** to nesting and foraging birds. The trees and shrubs provide numerous nesting opportunities for a variety of cavity and open nesting species.

The grassland also provides foraging value for species such as robin, starling (*Sturnus* vulgaris) and a range of thrushes such as blackbird.

Reptiles

Desk Study

7.17 There are multiple records of reptiles within a 2.0 km radius of the site.

Site Assessment

7.18 The land within the redline boundary was of '**negligible' value** to reptiles as it consisted solely of hard surfacing.

7.19 The wider landholding was of '**low' value** to reptiles due to the well-tended low-sward height grassland. Ariel imagery shows the majority of the immediately surrounding landholdings are either horse paddocks or well-tended gardens, habitats of little value to reptiles.

7.20 The works area is of no value to reptiles and no areas of value to amphibians will be affected.

Amphibians

Desk Study

7.21 There are no records of GCN (Great Crested Newts - *Triturus cristatus)* within the immediate surroundings recorded as part of nearby developments, nor are there any GCN survey or licence returns (positive or negative). No amphibians were noted during the survey.

7.22 1no. pond is located onsite. 19no. ponds were noted within a 500-meter radius of the site.

Site Assessment

7.23 There is a '**low** 'potential for amphibians to be present on site. Similar to reptiles, the surrounding land use of closely mown paddocks and gardens reduces the potential for amphibians to access the site.

7.24 19.no ponds were noted within a 500-meter radius of the site. However, there appears to be little connectivity between them.

7.25 The works area is of no value to amphibians and no habitats of value to amphibians will be affected by works. The wider site being of low-sward height grass also devalues the potential for amphibians to approach the works area.

7.26 A large pile of wood chippings and grass clippings was stored against the western end of the barn which could provide good hibernating value should it be left undisturbed.

7.27 The potential for GCN to be present is **highly unlikely.**

[redacted]

Other

7.30 No potential for or evidence of any other protected species such as rare plants was recorded. There is good potential for hedgehogs *Erinaceus europaeus* to forage in the grass garden given its size and the surroundings. No impacts upon other protected species are considered likely and have not been assessed further.

8.0 Evaluation of Impacts and Mitigation

Designated Sites

Potential Impacts

8.1 The site lies within the 12.0km buffer of The Mens SSSI, SAC. In the absence of mitigation, the works could affect commuting and foraging corridors for bats in the surrounding area through noise, vibrations, light spill and loss of habitat. However, due to the scope and scale of the proposals it is considered no impacts will be had so long as the mitigation and avoidance measures for bats (paragraph 8.7 – 8.9) are followed.

Avoidance, Mitigation and Compensation

8.2 See bat mitigation section below.

Habitats

Potential Impacts

8.3 The proposals shall only affect hard surfaces. No other habitats are to be affected.

Avoidance, Mitigation and Compensation

8.4 Ensure all materials and plant machinery are stored and operate within exiting hard surfaces. All soft ground should be avoided.

8.5 All hazardous chemicals should be stored on existing hard surfaces away from soft or open ground. Refuelling should be undertaken in a designated area on existing hard surfaces. Spill kits should be provided in case of emergency.

Bats

Potential Impacts

8.6 The barn is of '**moderate' value** to roosting bats. In the absence of mitigation, there is potential a bat could be harmed or killed during works. This would constitute an offence under the Wildlife and Countryside Act 1981 (As Amended).

Avoidance, Mitigation and Compensation

8.7 A series of 2no. bat emergence surveys will be required to establish exactly if and how bats are using the barn. The results of the surveys will inform any further necessary mitigation.

8.8 The bat surveys are to be undertaken between May – September (inclusive) with at least one survey undertaken between May – August (inclusive). The surveys must be undertaken at least 2 weeks apart from each other.

8.9 Works shall be designed to minimise disturbance of any bats which might use the surroundings. No external lighting shall be installed other than minimal downlighting of entrances and the access drive. Such lighting must strictly accord with the BCT/ILP Guidance Note 08/23, with minimal illumination of the boundary vegetation in particular (taken to be no more than 0.2 lux other than for emergency lighting). Construction phase lighting shall not be used.

8.10 Trees and hedges to be retained must be protected in accordance with British Standard 5837:2012.

Nesting Birds

Potential Impacts

8.11 No vegetation is currently scheduled for removal. If proposals change, this could lead to the destruction of a nest. This would constitute an offence under the Wildlife and Countryside Act 1981 (As Amended).

Avoidance, Mitigation and Compensation

8.12 Should proposals change to include vegetation, tree, hedge or shrub removal, works shall be carried out outside of nesting season (March-August inclusive) and in any case shall be preceded by a check to ensure no nests are present. If this is not possible, a more detailed inspection shall be undertaken by a suitable qualified ecologist and dependent on the results of this, monitoring would be necessary by the ecologist to confirm no nests are present or likely to be concealed.

8.13 Any active nests must be granted a 5.0 m buffer from any works, until such time that the chicks within have fledged and the nest is no longer in active use.

8.14 Should an active nest be discovered or suspected during works, all operations in the area must cease and a suitably qualified ecologist contacted for advice.

Reptiles and Amphibians

Potential Impacts

8.15 The works are limited to areas of hardstanding. No soft or open ground is due to be affected by works. When the pile of wood chippings and grass clippings stored by the western end of the barn are removed, an amphibian or reptile could be injured.

Avoidance, Mitigation and Compensation

8.16 Should the pile of wood chippings and grass clippings remain in situ until works start, they should be removed carefully using hand tools to ensure no reptiles which may be hiding are harmed. Should any reptiles be found, they should be moved to a quiet corner of he site away from works.

8.17 All materials shall be stored on hard surfaces or pallets, and any piles of timber metals etc. checked for presence of hedgehogs before removal.

8.18 In the **highly unlikely** event a GCN is discovered, all works must cease and a suitably qualified ecologist contacted for advice.

[redacted]

Avoidance, Mitigation and Compensation

8.20 Ensure all trenches and footings are covered at night and when the site is unattended or fitted with a shallow angled ramp to allow any trapped animals to escape.

Other

Potential Impacts

8.21 In the absence of mitigation there is a low risk of hedgehogs being disturbed, especially if materials are not stored properly in the garden.

Mitigation and Compensation

8.22 All materials shall be stored on hard surfaces or pallets, and any piles of aggregates, timber etc. checked for presence of hedgehogs before removal.

Residual Impacts

8.23 The overall impact of the scheme will be negligible.

9.0 Ecological Enhancements

9.1 The most beneficial enhancements would involve the following:

- Scattered fruit and seed producing trees and shrubs should be planted within the wider landholding.
- Altered management of the existing modified grassland for the benefit of wildlife, including the addition of suitable wildflower seed / plugs and an altered mowing regime which benefits floristic diversity.
- The provision of nesting boxes for a variety of bird species such as starling and house sparrow within trees and swallow boxes in a sheltered spot away from external lighting on the barn exterior.
- The creation of log and compost piles, as well as artificial hibernacula in quiet corners of the site;
- Bat boxes suitable for a range of species to be incorporated into the southern aspect of mature trees;
- Installation of invertebrate boxes in both sunny and sheltered locations to cater for a range of species.

10.0 Conclusions

10.1 The proposals area consists of an open sided barn with concrete parking area. The wider landholding consists of well-tended grass garden, with shrubs, a pond, woodland and mature trees. A period farmhouse sits in the middle of the site.

10.2 The site offered '**moderate' value** for roosting bats within the barn. The main house (offsite and not to be impacted by works) is of '**high' value** to roosting bats. The wider landholding is of '**moderate' value** to foraging and commuting bats.

10.3 As such a series of 2no. bat emergence surveys are to be undertaken to establish exactly if and how bats are using the barn. The bat surveys are to be undertaken between May – September (inclusive) with at least one survey undertaken between May – August (inclusive). The surveys must be undertaken at least 2 weeks apart from each other.

10.4 The site offers '**high' value** for nesting birds and '**low' value** for amphibians, reptiles hedgehog [redacted]

10.5 No significant effects are anticipated upon designated sites, provided the avoidance and mitigation measures stated within this report are followed.

10.6 When mitigation has been taken into account, the proposals are not considered to have a negative impact upon designated sites, habitats or protected species. Enhancements and a Biodiversity Net Gain Assessment are included to confirm how ecological gains will be achieved.

11.0 References

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13.0 Appendix A - Site Photos

Photo 1 –Barn front viewed from the north.

Photo 2 – Rear of barn viewed from southern aspect.

Photo 3 – Western end of barn with the grass clipping and woodchip pile evident.

Photo 4 – Area of lifted tile at eastern end of roof.

Photo 5 – Detail of gap in western half of barn roof.

Photo 6 - Closeup of gappy and misplaced tiles.

Photo 7 – Internal view of wooden rafters and internal membrane.

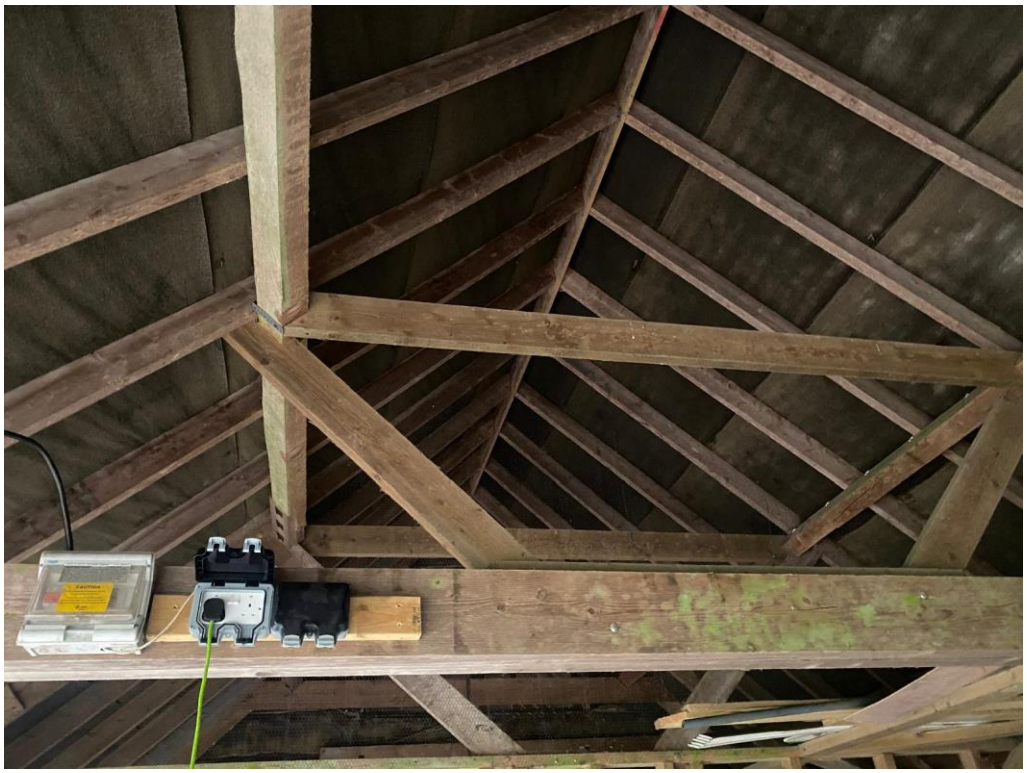
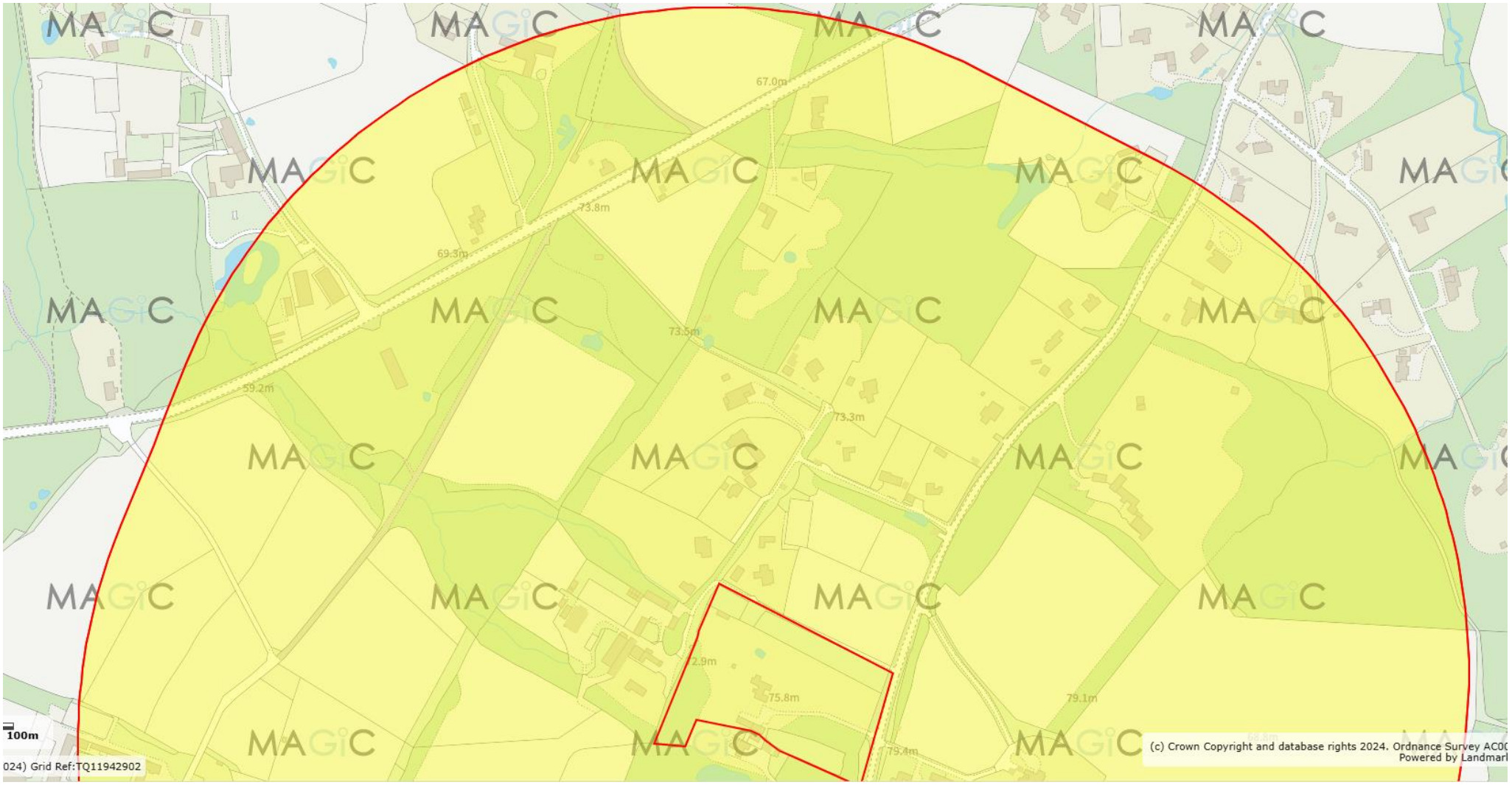


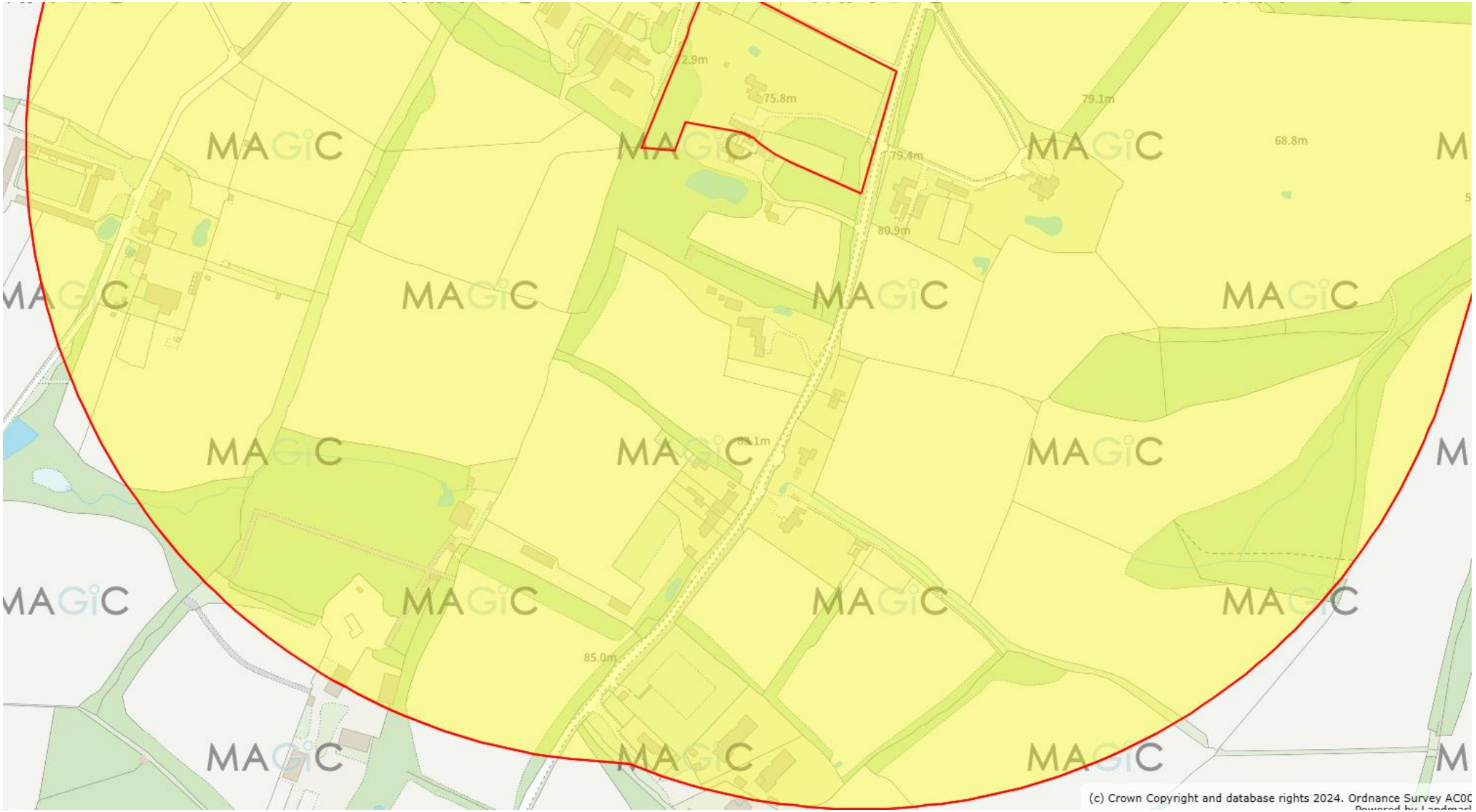
Photo 8 – Internal view of tiled roof without membrane.

Photo 9 – View of garden looking west.

Photo 10 – View of the wider site from the entrance gate on eastern boundary.

14.0 Appendix B - Pond Locations




MAGIC
72.9m
75.8m
79.1m
68.8m
79.4m
80.9m
84.1m
85.0m
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