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Tyrer Ecological Consultants Ltd, Formby Business Centre, 42 Duke Street, Formby, L37 4AT

Inspection and Assessment in Relation to Bats and Birds

January 2021

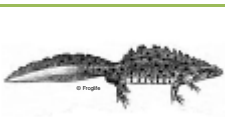
55 Mellor Brow

Mellor

Blackburn

BB2 7EX

National Grid Ref: SD 64610 30971



55 Mellor Brow, Mellor, Blackburn, BB2 7EX
Inspection & Assessment in Relation to Bats and Birds

Document Title	Inspection & Assessment in Relation to Bats & Breeding Birds
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Executive Summary

As part of a proposed planning application in relation to 55 Mellor Brow, Tyrer Ecological Consultants Ltd carried out a daytime inspection and assessment in relation to bats and breeding birds in January 2021. The survey was commissioned by LMP Architects and proposals are understood to involve demolition of an existing garage, alongside an extension to the residential property with internal modifications.

The following key ecological features and associated recommendations have been identified:-

Bats: The existing residential dwelling (B1) has been concluded to possess less than low (i.e. negligible) bat roost suitability. A total of three restricted crevices have been identified across aspects of the property (see Figure 7.1), which are limited in extent, and by the presence of cavity wall insulation. *Merely as a precautionary measure, it is recommended that the identified limited gaps are first investigated by an appropriately licenced, professional ecologist to establish absence prior to the commencement of works.*

Breeding Birds: The presence of common breeding birds associated with buildings, scrub and trees is considered likely during the nesting season (March-August inclusive); one historic nest to the eastern gable attributed to House Martin (*Delichon urbicum*) was confirmed at the time of the survey. *It is therefore recommended that any destructive/clearance works are undertaken outside the nesting season unless it can be conclusively demonstrated by a professional ecologist that nesting birds are absent.*

<p>Biodiversity Net Gain: A series of biodiversity enhancement measures are recommended within Appendix II which entail recommendations with respect to landscaping and the provision of wildlife boxes.</p>

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1.0 Introduction & Scope

- 1.1 As part of a proposed planning application in relation to 55 Mellor Brow, Tyrer Ecological Consultants Ltd carried out a daytime inspection and assessment in relation to bats and breeding birds in January 2021. The survey was commissioned by LMP Architects and proposals are understood to involve demolition of an existing garage, alongside an extension to the residential dwelling with internal modifications (see Figure 1.1).
- 1.2 As part of the Local Authority's Planning Policies ecological surveys are generally required, particularly where a specially protected species is or may be present and could be affected by the proposals for which the application seeks consent.

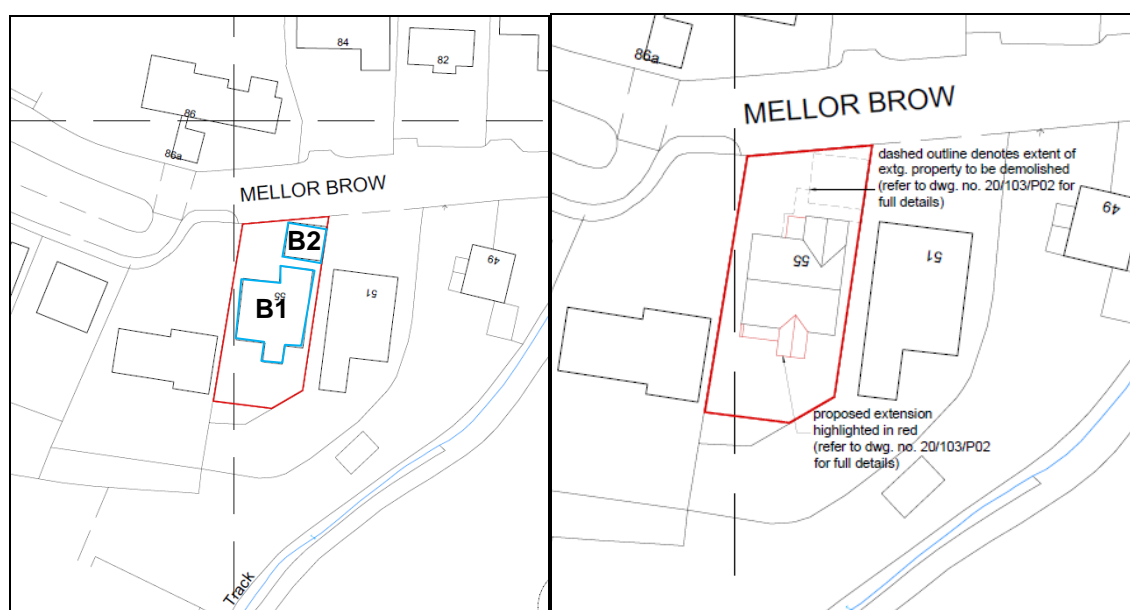


Figure 1.1: Location plan with positions of B1 and B2 (left) and proposed block plan (right) (LMP Architects)

- 1.3 The aim of the inspection was to ascertain if the buildings and associated features are of value to important taxa, notably including bats and breeding birds. If the building were found to be suitable for bats or signs of use was located then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August. If bat/s or their roost/place of rest/shelter is subsequently affected by the work, then a European Protected Species Mitigation Licence (EPSML) would be required to proceed with the development.
- 1.4 The optimum time to investigate buildings for evidence of a bat roost is May – August, however that is not to say they cannot be inspected and assessed outside of that time and frequently the results can be conclusive, which can save time and expense for planning applicants, but it should be borne in mind that equally the inspection can be inconclusive.
- 1.5 In addition to bats the site was assessed for its potential to offer nesting provision for breeding birds; if the survey results indicate that such species may be affected by the proposals then recommendations would be made accordingly.
- 1.6 If additional surveys are required following the initial site visit the report will outline the details of those further requirements.

2.0 Legislation & Policy

- 2.1 All British bats and their **roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species (amendment) (EU exit) Regulations (2019). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2019 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Use of Buildings by Bats

- a) Summer breeding roost.
- b) Hibernation.
- c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species (amendment) (EU exit) Regulations (2019) (Regulation 41) the term roost is not used but refers to “*a breeding site or resting place of such an animal*” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

- 2.3 All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected under the Wildlife & Countryside Act 1981 (as amended); birds listed on Schedule 1 e.g. Barn owls (*Tyto alba*) are afforded a greater level of protection. Where nesting birds are present, then work should be timed outside of the main nesting season (March – August) so as to avoid disturbance.

Policy

- 2.4 The National Planning Policy Framework (NPPF) has replaced the existing Planning Policy Guidelines. (PPG's) In relation to wildlife PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF in relation to species and habitats are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development. The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation.

This is supported by a guide to good practice entitled 'Planning for Biodiversity and Geological Conservation: Building in Biodiversity' in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependant upon built structures for survival and that roosts can be easily incorporated into existing and new developments/conversions to benefit these species.

When determining planning applications, Local Planning Authorities should aim to conserve biodiversity by applying the following principles:

“If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.”

- 2.6 Further to mitigating / compensating for the loss of biodiversity, LPAs should also aim to enhance existing biodiversity and provide clear and measurable net gains. Paragraph 174 of the NPPF states the following:

“To protect and enhance biodiversity and geodiversity, plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

- 2.7 Policy CS152 of Blackburn’s Core Strategy mirrors this and gives that: *“1. The Borough’s ecological assets will be protected, enhanced and managed with the aim of establishing and preserving functional networks which facilitate the movement of species and populations.”*

- 2.8 Guidance for Local Authorities: Extract from Office of the Deputy Prime Minister: Circular 06/2005

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.”

- 2.9 Figure 2.1 below provides a useful and indicative visual representation of how ecological issues are dealt with in the context of the planning process.

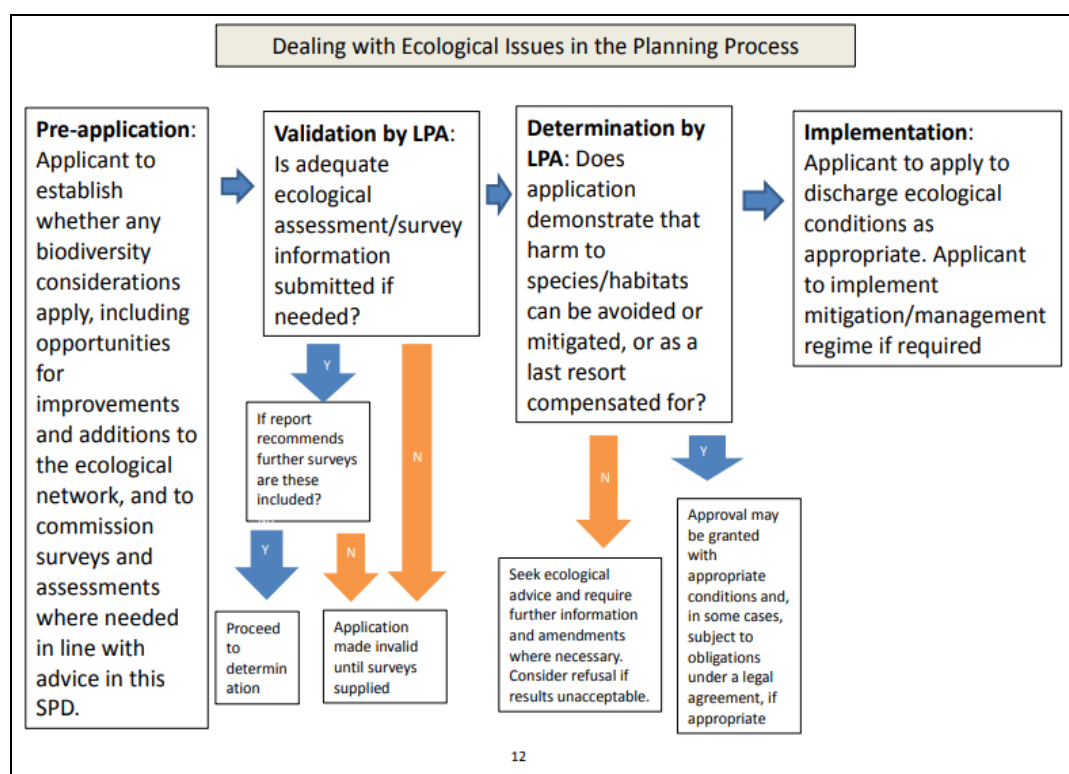


Figure 2.1: Dealing with ecological issues in the planning process (©Chorley Council et al, 2015)

3.0 Protected Species in Lancashire

- 3.1 Up to eleven bat species have been recorded in Lancashire, many of which use built structures and trees for roosting. A variety of building types and features are utilised by bat species at different times of year, ranging from occupied residential dwellings to disused barns and bridges. The most frequently encountered species is the common pipistrelle bat (*Pipistrellus pipistrellus*) and its abundant status in Lancashire is mirrored throughout the UK.
- 3.2 The number of breeding Barn owls (*Tyto alba*) within rural Lancashire is moderately high across areas of countryside where suitable environs exist; they are constantly under threat from loss of habitat and nesting opportunities.

4.0 Survey Methods

- 4.1 BCT Bat Conservation Trust 'Bat Surveys: Good Practice Guidelines' 3rd edition (2016) state:-

"The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive."

Desktop Study

- 4.2 Prior to a site visit a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations within 2.0km of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGIC – provided by Defra) was accessed to gather such information; this interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSML) to further inform conclusions concerning such species in the context of the study site and its proposed development. For additional context, a search of the planning portal for applications at the site and nearby was also undertaken.
- 4.3 Satellite imagery was reviewed using sources such as Google Earth (© 2020) to determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.

Field Survey

- 4.4 The daytime survey was conducted on 19th January 2021 when the dwelling and garage were inspected for potential places that may be of value to bats and to determine if evidence of use was present. This included an inspection of interior aspects including a basement and a loft space of B1, whilst interior elevations of B2 were not inspected. All external facets were inspected for viable ingress/egress opportunities and buildings were consequently assessed for their suitability for bats in line with the previously mentioned Bat Conservation Trust 'Good Practice Guidelines'.
- 4.5 All trees contained within the identified survey area were inspected relative to the presence of Potential Roost Features. These may include cracks, woodpecker holes, crevices and fissures; trees were similarly categorised relative to existing roost suitability in line with Collins (2016).

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- 4.6 The criteria for roost assessment is based upon the Bat Conservation Trust 'Bat Surveys: Good Practice Guidelines' 3rd edition (2016) (see Figure 4.1).

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.		
Suitability	Description	Roosting habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Communing and foraging habitats
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

^a For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

^b Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

^c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Figure 4.1: BCT guidelines extract

- 4.7 The survey was conducted on 19th January 2021 at a time when bats are outside of their main active season and in their typical hibernation season (November - March) by the following surveyor:

Table 4.1: Surveyor credentials

Name	Description
Joshua Styles BSc. ACIEEM AMRSB	Senior ecologist and botanical specialist with a FISC Level 6; Joshua Styles is an experienced ecologist with over 15 years' biological recording experience and over 5 years' consultancy experience. J. Styles is also an accredited agent on the Class 2 Natural England bat license of Kylee Wildling and somewhat experienced in the identification of various invertebrate taxa. J. Styles is also licenced to survey EPS Floating Waterplantain using destructive methods (2020-49283-SCI-SCI) and has experience across the environmental sector in research, conservation and consultancy, including a number of years involvement in peatland restoration. J. Styles also holds a Natural England Class 1 bat survey licence (2020-50830-CLS-CLS).

- 4.8 The UK Guidelines for Accessing and Using Biodiversity Data (CIEEM, 2020) stipulates that *“In some cases, it may be acceptable to not undertake a data search with the LERC or other relevant NSS or local interest groups. For example: ii) Situations where the data search would be extremely unlikely to provide information needed to inform the assessment, due to the scale and location of the proposed development. The appropriateness of excluding a data search will need to be judged on a case-by-case basis as, in most situations, it will be essential to carry out such a search even if the development is very small or is likely to have a low impact. It can be very difficult to demonstrate that a data search would not have provided relevant information without obtaining and reviewing those data”*.

Given the nature of the proposed development and outcomes of the assessment, it has been deemed unnecessary to conduct a data search for protected species or designated sites in the vicinity. Species/habitat information relevant to the application site and its immediate environs was obtained at the time of the survey from habitat information.

- 4.9 The results, conclusions and recommendations are based on multiple factors including:
- Practical experience of surveyor
 - Knowledge of bat/bird species relevant to the site location and geographical range
 - Nature of the immediate and surrounding habitat in relation to foraging/hunting opportunities
 - Condition of the building
 - Presence/absence of a loft space
 - Presence/absence of roost/nesting potential
 - Value of roost/nesting potential – if present
- 4.10 An assessment of the buildings and developmental footprint in relation to breeding birds was conducted in tandem with the investigation for bats, when birds are outside of their main breeding season (March-August inclusive). Exterior elevations of the buildings were inspected for current or historic signs of birds that show a high dependency upon built structures, of which some of these species are in a state of decline. These might include the following:
- **Starling (*Sturnus vulgaris*):** Birds of Conservation Concern (BoCC) red status
 - **House sparrow (*Passer domesticus*):** BoCC red status
 - **House martin (*Delichon urbica*):** BoCC amber status
 - **Swift (*Apus apus*):** BoCC amber status
- 4.11 Additional to the capacity to support common species of bird for breeding purposes, the application site was also subject to an assessment for its ability to support particularly notable species. This includes specially protected species such as Barn owl (*Tyto alba*), protected under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended).
- 4.12 All aspects of the field survey were undertaken in line with government and CIEEM (2020) standing guidance during the COVID-19 pandemic.

5.0 Limitations

- 5.1 The interior elevations of the garage (B2) were not inspected at the time of the survey. However, a full external appraisal was undertaken which found no viable ingress opportunities at the structure. On this basis, the interior was not inspected in order to further limit potential contact with owners opening up the garage, in alignment with COVID guidance. An internal inspection of B1 was conducted as this structure is currently unoccupied and had not been entered for some time prior to inspection.

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Where people were met on site, a social distance of 2 metres or greater was maintained at all times.

- 5.2 It is therefore considered that there were no significant constraints that would otherwise hinder the gathering of information on which to base conclusions and recommendations.

6.0 Desk Study Results

- 6.1 The buildings and land at 55 Mellor Brow are located to the outskirts of Mellor, a rural village between Blackburn and Preston at approximately 4.75 kilometres west of Blackburn centre (Figure 6.1), whilst the site itself is a relatively small plot of land equating to approximately 0.07ha.
- 6.2 Immediately encompassing the building, the landscape incorporates agriculturally improved pasture and other permanent grasslands to the south and north, alongside a band of residential development continuing along Mellor Brow. Tree lines and hedgerows are frequent within the immediate landscape, alongside introduced shrubs as part of established gardens.



Figure 6.1: Position of the study site within the contiguous landscape (red boundary) (©Google Earth 2020).

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- 6.3 The extending habitat continues in a similar nature to that of the immediate with the addition of deciduous woodland located to the north and west, listed within the National Forestry Inventory 2014. The previously identified habitats that occur in proximity with the survey area can be considered as being of moderate value for many of the important features for which the survey was undertaken (i.e. bats and breeding birds), subject to them being present in the locality. Where good quality habitat is present close to buildings then the percentage use of those buildings, by bats/birds increases given that roost/nest opportunities are available and vice versa.
- 6.4 The survey site lies outside the Impact Risk Zones for any designated sites. Where no impact to Sites of Special Scientific Interest (SSSIs) is predicted however, Natural England issue the following advice within their standing advice on SSSI impact zones (NE, 2019): *"It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment."*
- 6.5 The desktop study found one result for an EPSML in relation to bats within a 2km radius of the study site; this is located at approximately 1.25 kilometres west and is in relation to a non-breeding roost for Whiskered, Common Pipistrelle and Soprano Pipistrelle bats.

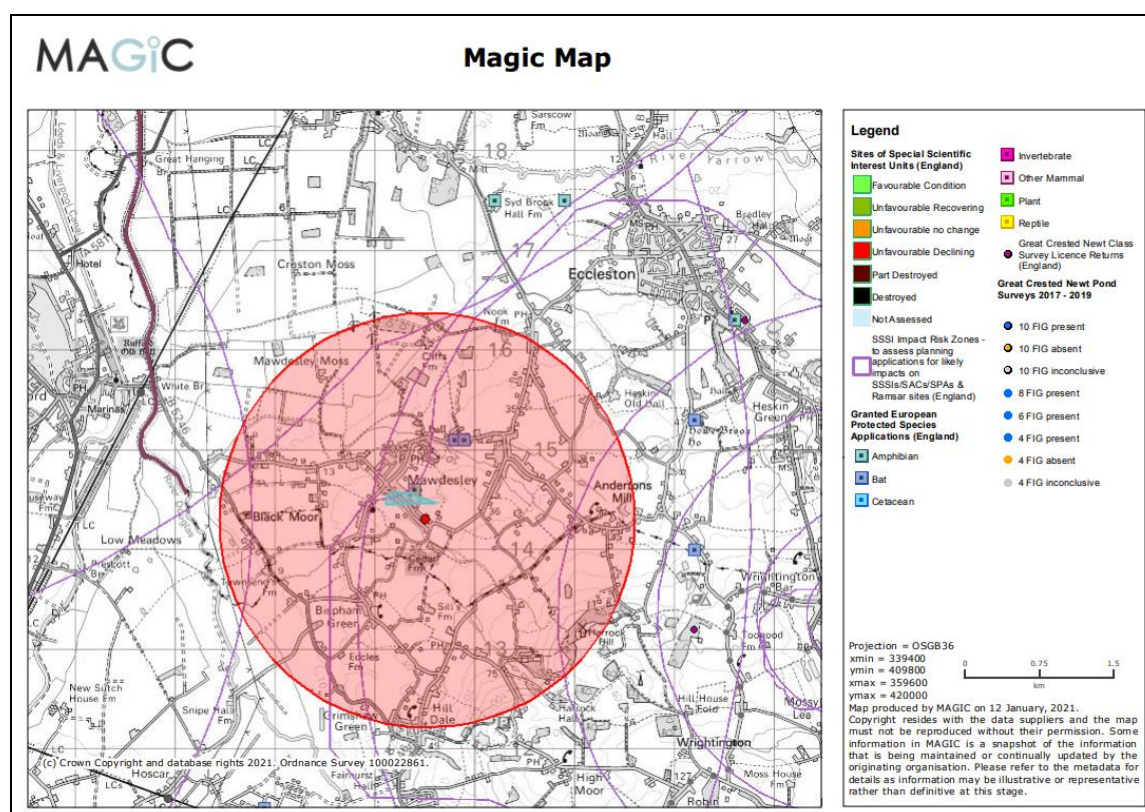


Figure 6.2: MAGiC maps output

7.0 Field Study Results

Bats

B1

- 7.1 The existing dwelling that is currently unoccupied at the site comprises a relatively modest, two storey building of brick construct with a partial render finish and pitch tile roof. The property was noted to be in a reasonable condition aesthetically at the time of the survey, whilst a loft space exists above the second storey. The total approximated dimensions of the loft space equate to 15 metres by 11 metres by 2 metres in maximum height.
- 7.2 Internal inspection into the loft space noted that the largely open space is fully illuminated with artificial lighting and with natural light from sky lighting. Furthermore, cobwebbing was found to be abundant across rafters, whilst cavity wall insulation was noted in cavity walls. Therefore, due to the occasionally disturbed and fully illuminated character of the loft space, it has been discounted for suitability respective to the preferred breeding habits of loft-dwelling bats such as the Brown Long-eared (*Plecotus auritus*). This is a species that prefers large, darkened and unrestrictive lofts which have consistent thermal qualities for breeding purposes. This however, does not preclude use on an occasional basis pending viable ingress/egress opportunities externally.
- 7.3 No evidence of loft-dwelling bats was identified upon inspection, although surrounding habitats in part represent reasonable foraging habitat for this group, with limited artificial illumination in continuing habitat to the north and south.
- 7.4 Bitumen underlining was observed to be present beneath roofing material. Where present, traditional bitumen 1F underfelt or similar underlining may improve the probability of occupancy by crevice-dwelling species of bat at roof level, such as the Common Pipistrelle (*Pipistrellus pipistrellus*), whereby bats are able to roost between external materials and underling material, provided viable external access opportunities exist. During the investigation, no evidence of crevice-dwelling bats was identified during the inspection of the property; however, this is often the case due to the cavity-inhabiting nature of this species group and absence of crevice-dwelling species cannot solely be relied upon.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony, but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

- 7.5 External assessment found a total of three possible Potential Roost Features as mapped within Figure 7.1. These include two gaps within soffit and a singular, small gap at roof verge to the north, however, all of these were exceptionally restricted in extent, whilst, soffits are concluded to be unlikely to be utilised by bats; this is due to the large quantities of cavity wall insulation which appears to extend the entire way up into the cavity wall. Due to the highly limited character of possible PRFs and limiting factors, B1 has been concluded to possess less than low (i.e. negligible) bat roost suitability in line with standing best-practice laid out by Collins (2016). Nonetheless, a series of reasonable avoidance measures have been presented within section 8.0 to ensure no possible harm to bats and/or their roost are undergone as part of the proposed development.



Figure 7.1: Possible PRFs at B1 including gaps at soffit and a small gap at roof verge

B2

- 7.6 The small garage to the north of B1 comprises a small building of tailored stone construct with a flat roof. No loft spaces are understood to be present, whilst internal aspects were not investigated at the time of the survey (see section 5.1). The total dimensions of the structure approximate to 10 metres by 8 metres by 3.75 metres in maximum height.
- 7.7 External appraisal of the structure found all aspects to be tight-fitting, with no viable ingress/egress opportunities present across any elevation. Furthermore, no evidence of any bat species was found at the structure at the time of the survey. Therefore, on this basis, B2 has been concluded to possess negligible roost suitability in accordance with Collins (2016).

Trees

- 7.8 All trees within the survey boundary have been assessed to pertain to 'negligible' roost suitability, given the absence of viable PRFs.

Birds

Breeding birds

- 7.9 Evidence of historic nesting by birds was identified at the site in the form of a singular nest attributed to House Martin (*Delichon urbicum*) to the eastern gable of B1 (see Figure 7.2 below). Furthermore, a number of potential nesting platforms were observed across the site including introduced shrubs and tree features. The presence of breeding birds at the site within the nesting period (March-August inclusive) is considered to be likely.
- 7.10 No areas considered to be suitable for the breeding habits of any Schedule 1 WCA-listed species were identified on site and no evidence of such species was located across the full extent of the survey area.



Figure 7.2: Position of House Marten nest

8.0 Conclusions & Recommendations

- 8.1 Based on the survey results above, risks of impacts to bats can be considered highly unlikely and both buildings B1 and B2 are duly categorised as offering 'Negligible' bat roost potential in accordance with Bat Conservation Trust 'Bat Surveys: Good Practice Guidelines' (2016) (see Figure 8.1); no further surveys are required in relation to bats.

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

Figure 8.1: Bat Conservation Trust extract

- 8.2 No further surveys in the form of dusk / dawn emergence / re-entry surveys are recommended, however, despite building B1 pertaining to less than low (i.e. negligible) suitability, due to exceptionally small areas of possible potential roost features, limited in both extent and by cavity wall insulation. Therefore, it is recommended purely as a precautionary measure that prior to the removal of these identified features, they will be subject to inspection using a torch and endoscope prior to the commencement of work, to inspect the space for the presence of bats or evidence thereof; if absent, the works can proceed to completion.
- 8.3 In the unlikely event that bat(s) are found, or evidence of bat(s) during the proposed works then as a legal requirement the work at the site should immediately cease and a bat ecologist be contacted for further advice. If bat(s) or their roost(s) will be affected, then an EPSML may be required to legally commence with the works.
- 8.4 Natural England provides information and guidance about licensing and the following extract is included in that guidance:-

If you intend to apply for a licence for development you are advised to seek the guidance of a consultant ecologist. Natural England's view is that:-

A licence is needed if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under the Conservation of Habitats & Species Regulations 2017 (as amended).

If the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence being committed then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If European protected species are found, cease the work until you have assessed whether you can proceed without committing an offence. A licence should be applied for if an offence/s is unavoidable and the work should not commence until a licence is obtained.

The application should be completed by the developer and a consultant ecologist. The ecologist will need to be able to demonstrate to the satisfaction of Natural England that they have the relevant skills and knowledge of the species concerned.

NB: Where more detailed bat surveys are recommended, following an initial investigation, then Local Authorities on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e. by conducting dusk/dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2017. Therefore it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.

- 8.5 The presence of common breeding birds associated with buildings, scrub and trees is considered likely due to the presence of platforms in which a variety of birds can nest; furthermore, a historic nest attributed to House Martin was identified at the time of the survey. It is thus recommended that any destructive/clearance works will be carried out outside of the breeding birds season (March-August inclusive); unless a professional ecologist can conclusively demonstrate that nesting birds are absent.

Point 3.24 of the British Standards Publication 42020:2013 defines a professional ecologist as “a person who has, through relevant education, training or experience, gained recognised qualifications and expertise in the field of ecology and environmental management.”

- 8.6 To improve opportunities for bats, nesting birds, and invertebrates on site, enhancement is recommended to be incorporated into any new development as per Appendix II.

9.0 Bibliography

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Appendix I: Site Photographs



Plate 1: Character of extending land to the south



Plate 2: A view of B1 (right) and B2 (left) with indicative limited gap at roof verge highlighted



Plate 3: Rear elevation of B2



Plate 4: Eastern gable aspect with House Martin nest at apex and gap in soffit indicative



Plate 5: Interior character of loft space at B1



Plate 6: Sky light in loft space of B1

Appendix II: Biodiversity Enhancement

Enhancement

Landscaping

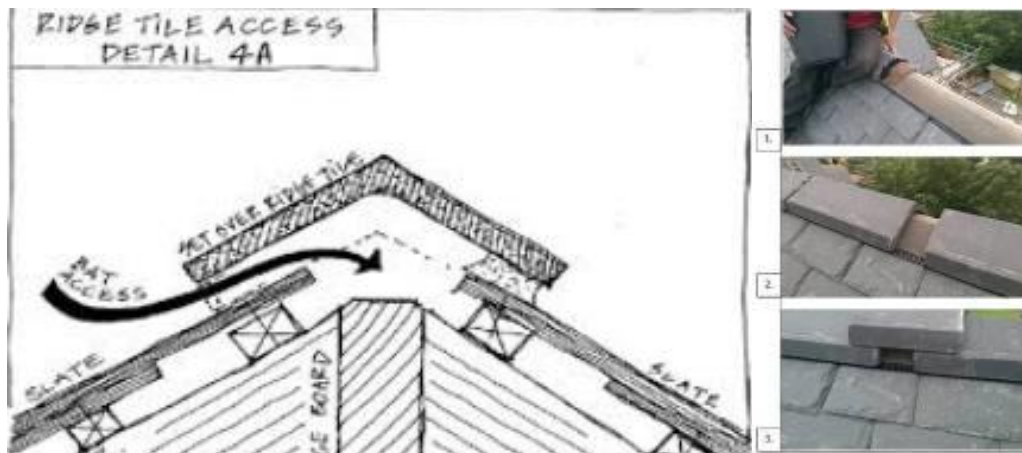
A series of trees, woody shrubs, climbers, herbaceous plants and ferns have been given within the table below which are suitable for incorporation into the scheme proposed scheme of works at the application site; the list of plants given below are readily commercially available.

	Common Name	Scientific Name	Planting Preference
Ferns	Male Fern	<i>Dryopteris filix-mas</i>	Semi-shade or shaded
	Soft Shied-fern	<i>Polystichum setiferum</i>	Semi-shade or shaded
	Maidenhair Fern	<i>Adiantum capillus-veneris</i>	Suitable for rockeries / walled gardens
	Royal Fern	<i>Osmunda regalis</i>	Full sun in moist-damp areas
Herbaceous plants	Bloody Crane's-bill	<i>Geranium sanguineum</i>	Dry soils - suitable for rockeries
	Columbine	<i>Aquilegia vulgaris</i>	Semi-shade or open areas
	English Bluebell	<i>Hyacinthoides non-scripta</i>	Moist soils in semi-shade or open areas
	Giant Bellflower	<i>Campanula latifolia</i>	Semi-shade or open areas
	Greater Knapweed	<i>Centaurea scabiosa</i>	Dry-moist soils. Suitable for borders
	Greater Woodrush	<i>Luzula sylvatica</i>	Moist soils in semi-shade or open areas
	Meadow Crane's-bill	<i>Geranium pratense</i>	Humid-moist soils. Suitable for borders
	Musk Mallow	<i>Malva moschata</i>	Dry-moist soils. Suitable for borders and rockeries
	Sea Campion	<i>Silene uniflora</i>	Dry soils - suitable for rockeries
	Stinking Hellebore	<i>Helleborus foetidus</i>	Semi-shade or open areas
Climbers	Honeysuckle	<i>Lonicera periclymenum</i>	Dry-moist soils
	Hops	<i>Humulus lupulus</i>	Dry-moist soils
	Ivy	<i>Hedera helix</i>	Dry-moist soils
	Sweet-briar	<i>Rosa rubiginosa</i>	Dry-moist soils
Woody Shrubs	Dogwood	<i>Cornus sanguinea</i>	-
	Guelder Rose	<i>Viburnum opulus</i>	-
	Hawthorn	<i>Crataegus monogyna</i>	-
	Hazel	<i>Corylus avellana</i>	-
	Holly	<i>Ilex aquifolium</i>	-
	Blackthorn	<i>Prunus spinosa</i>	-

Bats

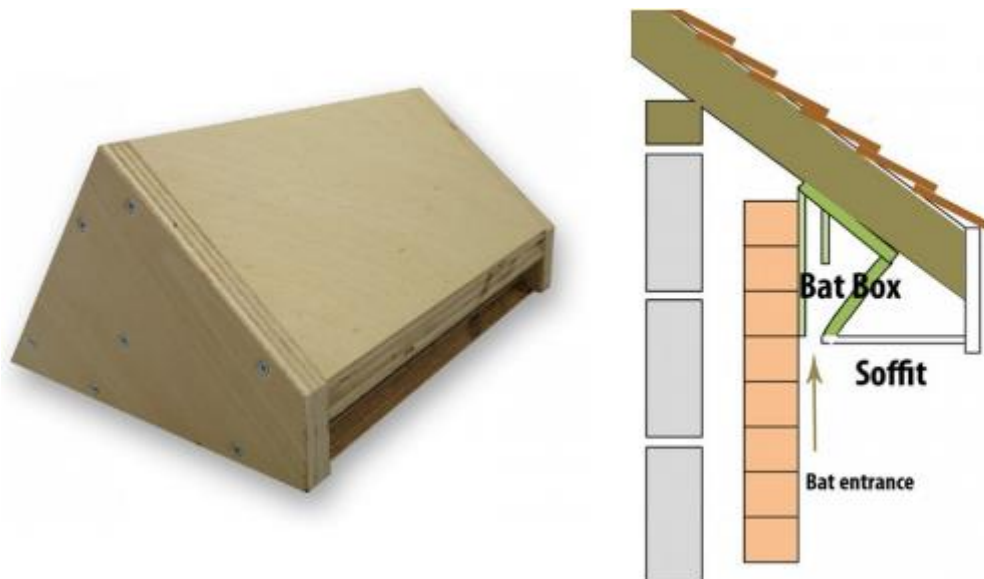
Ridge access

Where appropriate, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.



Soffit access

Where soffits are installed at gable elevations, roost provision may be installed in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees which may include the Beaumaris, low profile woodstone, or Schweglar bat boxes.



House sparrow

The 'Sparrow Terrace' has been designed to help redress the balance of falling house sparrow numbers. The current UK population is half what it was in 1980 and this is thought to be due to habitat destruction and lack of suitable nesting spaces. Sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families.

The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of agricultural buildings such as barns under eaves or overhanging roofs on a North - North East elevation

<http://www.nhbs.com/title/174850/1sp-schwegler-sparrow-terrace>



Swift

The type of entrance possessed by the WoodStone Swift Nest Box is preferred by swifts and discourages competing species such as house sparrows.

This box should be installed at least five metres above ground level , ensuring that there is unobstructed access for birds entering and leaving, preferably being placed in a sheltered locality under eaves or overhanging roofs on a North- North East elevation



<https://www.nhbs.com/woodstone-swift-nest-box>

Invertebrates

Bee and Bug Houses will provide valuable habitat on site for solitary bees and other insects. At a time when many of our native insects are struggling, this is a fantastic way to give them a helping hand. Top chambers can feature wooden nesting tubes in wooden blocks, together with bamboo tubes of various sizes. Alternatively holes can be drilled into existing timber to create novel designs - perfect for attracting ladybirds, earwigs and lacewings. Other chambers can be filled with miscellaneous items such as pine cones to provide nooks and crannies for insects, aiding to provide habitat for insects that predate natural garden pests such as aphids. Natural materials, such as straw or bark, will provide an excellent winter habitat for lacewings, ladybirds, woodlice, earwigs and many other bugs. A range of other novel ideas can be used.

For example, see link - www.nhbs.com/bee-and-bug-biome

