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Inspection & Assessment in relation to Bats & Breeding Birds

October 2023

Alick's House
Glovers Brow
Knowsley
Kirkby
L32 2AF

National Grid Ref: SJ 40263 99671



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Executive Summary

As part of an ongoing planning application regarding Alick's House in Kirkby, Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in August 2023. The survey was commissioned by Architectural Emporium Ltd on behalf of their client Mr Ross Boyd; proposals are understood to involve the erection of a single-storey extension adjoining the main dwelling with an outhouse.

Detailed methods, findings, conclusions and recommendations are presented throughout the report; however, the reader should be aware of the following **Key** points:

Bats: Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by **Appendix I**, B1 at Alick's House is determined to offer '**None**' bat roost suitability whilst B2 presents '**Low**' bat roost suitability in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), warranting the requirement for further survey effort at the site before an impact assessment can be concluded.

Table 7.1. Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees where other methods such as PRF inspection are not possible, but unlikely to give confidence in a negative result). To be used in tandem with Table 7.2.

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
May to August (structures)	May to September ^a , with at least one of surveys between May and August ^b	May to September ^a , with at least two of surveys between May and August ^b
No further surveys required (trees)		

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.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).

It is recommended that a single dusk emergence or dawn re-entry survey is conducted at B2 during the active season of bats (May – August, extending into September), in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence / re-entry.

Breeding Birds: No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as barn owl, and no further surveys or recommendations are necessary in relation to specially protected birds. In relation to common birds, no evidence of breeding birds was encountered within the buildings, with each building considered unsuitable for use by urbanised bird species. While evidence of nesting wood pigeon was observed within the larch tree onsite, this is not to be affected by the proposed works. As such, no further surveys or recommendations are necessary in relation to common bird species.

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Appendix II: Biodiversity Enhancement: General Recommendations

1.0 Introduction & Reasons for Survey

- 1.1 As part of an ongoing planning application Alick's House in Kirkby (see **Figure 1.1**), Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in August 2023. The survey was commissioned by Architectural Emporium Ltd on behalf of their client Mr Ross Boyd; proposals are understood to involve the erection of a single-storey extension adjoining the main dwelling with an outhouse.

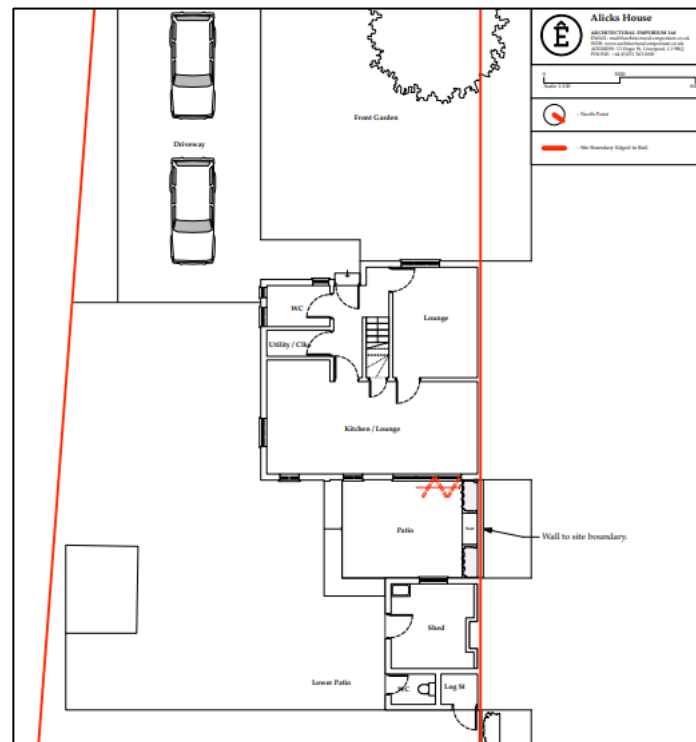


Figure 1.1 – Existing plan of Alick's House (© Architectural Emporium Ltd)

- 1.2 The aim of the survey was to ascertain if the surveyed building was of value to bats whilst an assessment for birds was also carried out. If any potential roost features (PRFs) were found to be suitable for bats, or signs of use were observed, 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 (extending into September).
- 1.3 If additional surveys are required following the initial site visit, this report will outline the details of those further requirements.
- 1.4 If it was determined that bat(s) or their roost / place of rest / shelter will be subsequently impacted by the works then a European Protected Species Mitigation Licence (EPSML) would be legally required to proceed with the development.
- 1.5 If evidence indicated breeding birds may be impacted by proposals, tailored recommendations would be made accordingly, species pending.
- 1.6 As part of the local authority's planning policies and obligations to the Planning Framework, ecological surveys are generally required prior to planning permission being granted where protected / priority habitats and species are, or may be present, that could be affected by the proposals for which the application seeks consent. Where more detailed surveys are recommended by the ecologist, following an initial daytime investigation, then Local Planning

Authorities (LPA), on the advice of their ecological advisors, will not grant permission until such time that all relevant information is gathered.

- 1.7 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019) the site visit also aims to identify enhancement opportunities for biodiversity in line with national and local planning policy.

2.0 Protected Species & Their Requirements

Bats

- 2.1 All British bats and their **roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2019) (EU Exit). 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 Regulation 7 of the Regulations, and therefore has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Uses of Buildings by Bats

- a) Summer breeding roost (May-August)
- b) Hibernation roost (October-March)
- c) Transitional or temporary roost (other months)

- 2.3 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 Regulations (2019) (EU Exit) (Regulation 43 (d) 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.*

Birds

- 2.4 All wild birds, no matter how common, their eggs, young and nests, whilst being built or occupied, are protected under both the Wildlife and Countryside Act (WCA 1981) and Natural Environment and Rural Communities Act (NERC Act 2006). Birds listed on Schedule 1 of the WCA 1981, for example barn owl (*Tyto alba*), are afforded a greater level of protection and are protected also from disturbance.
- 2.5 Any work that would damage an occupied nest, eggs or young of breeding birds must be avoided; any damage to nests that may occur as a result of the development should be outside of the main breeding bird season (March – August). On occasions nests can become unoccupied during the breeding season but the status of the nest(s) should be determined by a suitably experienced ecologist before any damage takes place.

Policy

- 2.6 Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) states:

When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity 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;*

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

- 2.7 The Knowsley Borough Council supports this in Policy CS8: Green Infrastructure of their adopted local plan core strategy, which states:

“Approach to Green Infrastructure and New Development

6) New development must be served by Green Infrastructure to meet the needs of residents and the local environment, in a manner which will:

- a) Contribute to the creation of a high quality residential environment;*
- b) Provide access to high quality open space for leisure and recreational purposes;*
- c) Seek to protect, maintain and where possible enhance biodiversity within and around new developments according to their designation and significance to provide space for nature; and*
- d) Provide adequate mitigation and/or, as a last resort, compensation for Green Infrastructure or biodiversity loss, in circumstances where harm resulting from the development is otherwise unavoidable.”*

3.0 Bats in Merseyside

- 3.1 Up to nine bat species have been recorded in Merseyside most of which use built structures, notably occupied residential properties, for roosting. The most frequently encountered species is the common pipistrelle bat (*Pipistrellus pipistrellus*) and its abundant status in Merseyside is reflected throughout the UK.
- 3.2 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). Some species are, however, subject to a greater level of protection, for example barn owl, which is listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), with nests of birds from these species being protected from disturbance as well as destruction.

4.0 Survey Methodology

- 4.1 As part of the Inspection & Assessment in relation to Bats & Breeding Birds report, a desk-top and field-based study is conducted. Methods for both components of the appraisal are given below.

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 2.0 kilometres 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 particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSMLs) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.
- 4.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2022/23) to help establish past use of the land and 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.
- 4.4 A commercial data request to the Local Environment Records Centre serving the area – in this case Merseyside Biobank – has not been sourced and is justified through application of the following recent guidance:

1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states:

“It is generally expected that a desk study, including a data search, will be a key part of the ecological surveys or reports produced to inform a planning application. Freely available web-based sources of data and contextual information should always be used; 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.*

*iii) In some cases for Preliminary Roost Assessments of buildings in **low impact / small-scale scenarios**, such as an extension to a residential property, loft conversions (full or partial), installation of Velux/dormer windows, single modern agricultural or similar building conversion or demolition; however, it should not be assumed that data searches are never required for such scenarios and this must be judged on a case by case basis and justified accordingly.*

2) The Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) also states:

“Very occasionally it might be possible to carry out a robust PEA without obtaining LERC/NBDC/CEDaR data; this will usually only apply to low impact or small-scale projects

(e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis."

- 4.5 As exemptions as made **bold** above can be applied at Alick's House in this case, whilst following best practice, it is considered unnecessary to conduct a commercial data request following the desk study effort and daytime assessment at this time, which offers a proportionate level of survey effort. If, however, a data search is considered necessary by the Local Authority advisory body to inform the ecological impact assessment following any further surveys recommended in this report, a proportionate data search should be commissioned with results interpreted into the conclusions and recommendations of a re-issued / updated report.

Field Survey

- 4.6 In context with the above, a diurnal inspection and assessment of the building in relation to bats and breeding birds was conducted on 18th August 2023 in clear conditions (15 °C), wind 2/12 (Beaufort scale), 30% cloud, by the following surveyor (see **Table 4.1**):

Table 4.1 – Site surveyor credentials

Name	Description of most relevant credentials
Miss. C. Rimmer	Graduate Ecologist with one year training and experience, currently undergoing further extensive survey training - BSc Hons in Wildlife and Conservation

- 4.7 Bat Conservation Trust (BCT) - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) states:

"The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. The question should not be whether the guidelines were followed, but whether the objectives of the survey met? Where examples are used in the guidelines, they are descriptive rather than prescriptive."

- 4.8 The bat and breeding bird surveys were conducted in tandem; the building was inspected for potential places that may be of value to bats or breeding birds, and to determine if evidence of use by either group was present; the interior was assessed with the aid of a high powered torch for evidence of bat use which mainly includes bat droppings and/or prey items, or incidental presence of live or dead animals, for example, and investigated for evidence of breeding birds which broadly involves a search for nesting materials, presence of pellets or accumulated faeces and/or dead juveniles/hatchlings, for example.
- 4.9 External elevations were investigated with the aid of high-powered torch and close focus binoculars (where necessary) for places that can be used as a roost by bats or as a means of ingress for bats and birds leading to areas of roosting/nesting potential. These features are typically referred to as potential roost features (PRF) concerning bats. All external features were able to be surveyed without constraint.
- 4.10 The surrounding habitat was also considered in terms of general suitability for bat and bird species associated with the local habitat types.

- 4.11 Criteria for roost assessment are based upon the determinants given in the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023): (see **Figures 4.1-4.2** below).

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.		
Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible*	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).	Habitat that could be used by small numbers of bats as flight-paths 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 with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is 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 flight-paths 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 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 ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths 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.

Figure 4.1 –BCT guidelines extract in relation to bat roost potential in structures

Table 4.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.	
Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

Figure 4.2 –BCT guidelines extract in relation to bat roost potential in trees

- 4.12 An assessment of the site was conducted when birds are within their breeding season (this is typically March – August inclusive). Trees were inspected for evidence of birds known to be present within the local area, encompassing both common and species protected under legislation, for example on section 41 of the Natural Environment Rural Communities Act 2006 (NERC Act) or on the Local Biodiversity Action Plan (LBAP).
- 4.13 Additional to the site's capacity to support common species of bird, the area was subject to an assessment for capacity to support specially protected species such as barn owl, a species protected under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended).
- 4.14 The results, conclusions and recommendations are based on a number of factors i.e.
- Practical experience of surveyor,
 - Knowledge of bat/bird species relevant to the site location and geographical range,
 - Nature of immediate/surrounding habitat in relation to foraging/commuting,
 - Presence/absence of roost potential,
 - Value of roost potential – if present.
- 4.15 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, the Director of Tyrer Ecological Consultants Ltd, and her assessment is consistent with that of the surveyor Miss. C. Rimmer

5.0 Limitations

- 5.1 The survey was conducted in August, which is towards the end of the breeding season, however, is still considered within the main active season, when evidence of bats most apparent at this time of year. Survey timing is therefore not considered a constraint in this instance.
- 5.2 The survey took place within the breeding bird season (typically March – September inclusive) at a time when evidence of breeding birds is most apparent. Survey timing is again not considered a constraint in this instant.
- 5.3 No internal access to the main dwelling (B1) was possible during the survey; despite this the surveyor is confident that sufficient information was gathered during the external assessment with which to definitively categorise the buildings potential in relation to roosting bats. Furthermore, no works are directly proposed at this structure, and it will not be significantly impacted due to the development which incorporates a single storey extension.
- 5.4 In considering all survey constraints, whilst it is accepted that there were access issues, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

6.0 Desk Study Results

- 6.1 The application site is situated to the east of Glovers Brow, approximately 1.3 kilometres north of Kirkby town centre and 11 kilometres north of Liverpool City centre (see **Figure 6.1** below).



Figure 6.1 – Location of the application site (red boundary) within the landscape (© Google Earth Pro 2023)

- 6.2 The application site consists of a semi-detached plot with a driveway and a large garden to the rear. Based on historic imagery and mapping, the current dwelling appears to have been in place since at least the 1920s, with the associated shed having been added simultaneously. The area in the vicinity of the site has remained analogous since this time, with no large scale developments visible either on satellite imagery or on Knowsley Council's 'Search Planning Applications' online tool.
- 6.3 The immediate environment (0.5 kilometre radius) is suburbanised within Kirkby, with extending residential development to the east and south in the form of semi-detached housing and associated gardens. Conversely, to the direct north and east are expanses of agricultural land and associated ecological features such as hedgerows and ditches; semi-natural environments within the town are limited to occasional urban parks such as Mill Dam Park and Rainbow Park, as well as water bodies such as Simonswood Brook.
- 6.4 The extending environment (2.0 kilometre radius) is broadly similar to that of the immediate with the continuation of urbanisation to the south and agricultural land to the north. The urban sprawl of Kirkby continues along Glover's Brow, with a train line intersecting the road at 0.4 kilometres from the Site. Further linear features within the landscape include the Leeds to Liverpool canal located approximately 1.0 kilometre to the west, a valuable commuting and foraging route for bats and birds; additional semi-natural environs include the River Alt, Mill Lane Pond and priority deciduous woodland.

- 6.4 Collectively, the immediate and extending ecological features should be considered moderately favourable for biodiversity, commuting pathways in the contiguous landscape leading to wider areas of natural and semi-natural habitat, with no barriers to dispersal for airborne species. The species groups most likely to exist in proximity are bats, notably the common pipistrelle which is commonly associated with roosting in residential properties, as well as bird species adapted to urbanisation, for example house sparrow and starling.

NB: *Where quality habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available and vice versa..*

- 6.5 There are no statutory designated sites within 2.0 kilometres of the application site, with the closest site being Acornfields Plantation, a Local Nature Reserve (LNR) located approximately 3.6 kilometres to the south-east.
- 6.6 Given the lack of proximity to statutory designated sites in the wider area and the small scale of the proposed works, there is no reason for Natural England to be consulted in respect of the scheme in relation to designated sites.

"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."

- 6.7 An online search of MAGiC maps revealed that no European Protected Species Mitigation Licences (EPSML) have been granted within a 2.0 kilometre radius.
- 6.8 Tyrer Ecological Consultants Ltd have previous and ongoing projects involving bats within the surrounding 2.0 kilometres area – as such, the following biological data (see **Table 6.1**) is readily available to the Ecologist from the company database – all data has been previously submitted to the LERC serving the area, which, in this case, Merseyside BioBank.

Table 6.1 – LERC submitted biological data records collected by Tyrer Ecological Consultants Ltd

Year	Distance from Site	Context (where relevant)
2018	0.5 kilometres south-west	Emergence of x3 common pipistrelle and x3 brown long-eared (day roosts)
2021	1.7 kilometres north-west	Commuting and foraging by common pipistrelle and noctule

Alick's House, Glovers Brow, Knowsley, Kirkby, L32 2AF
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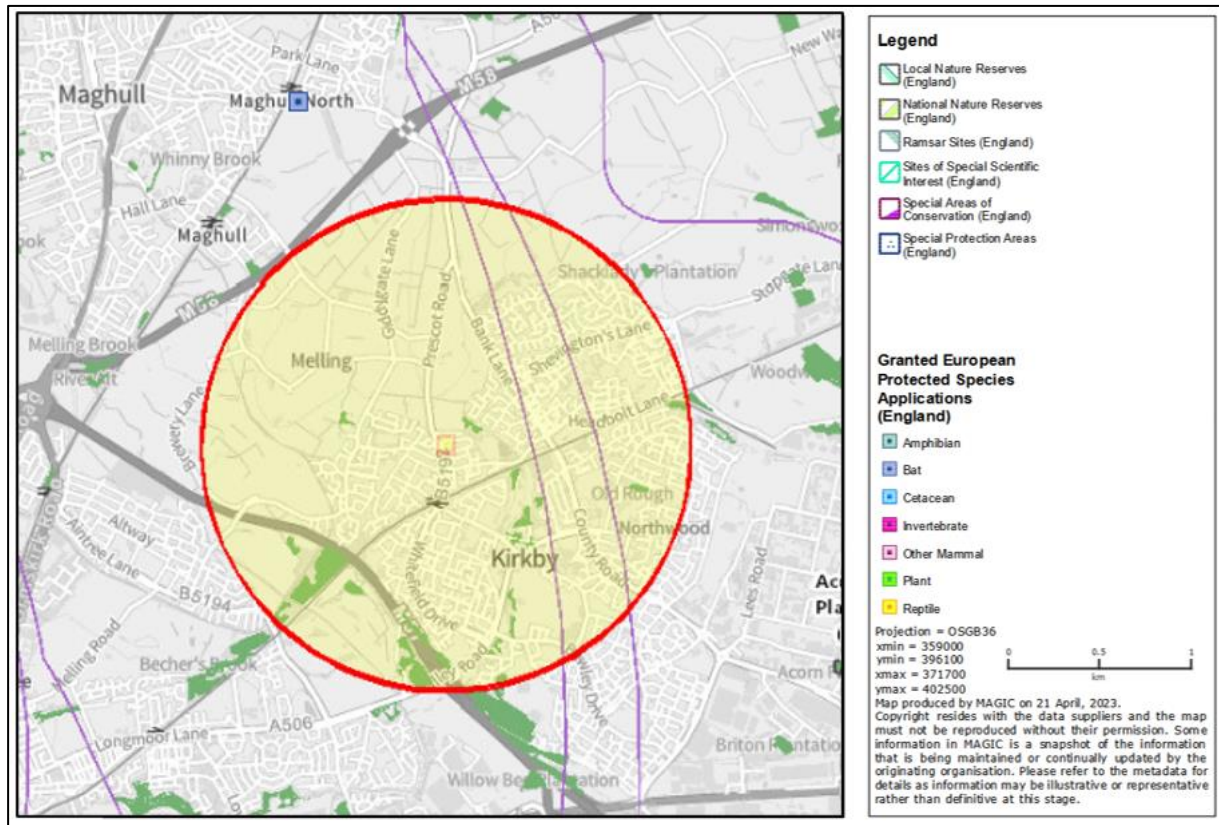


Figure 6.2 – EPSML and designated site data for the area within 2.0 kilometres of the application site (MAGiC Maps 2023)

Bats

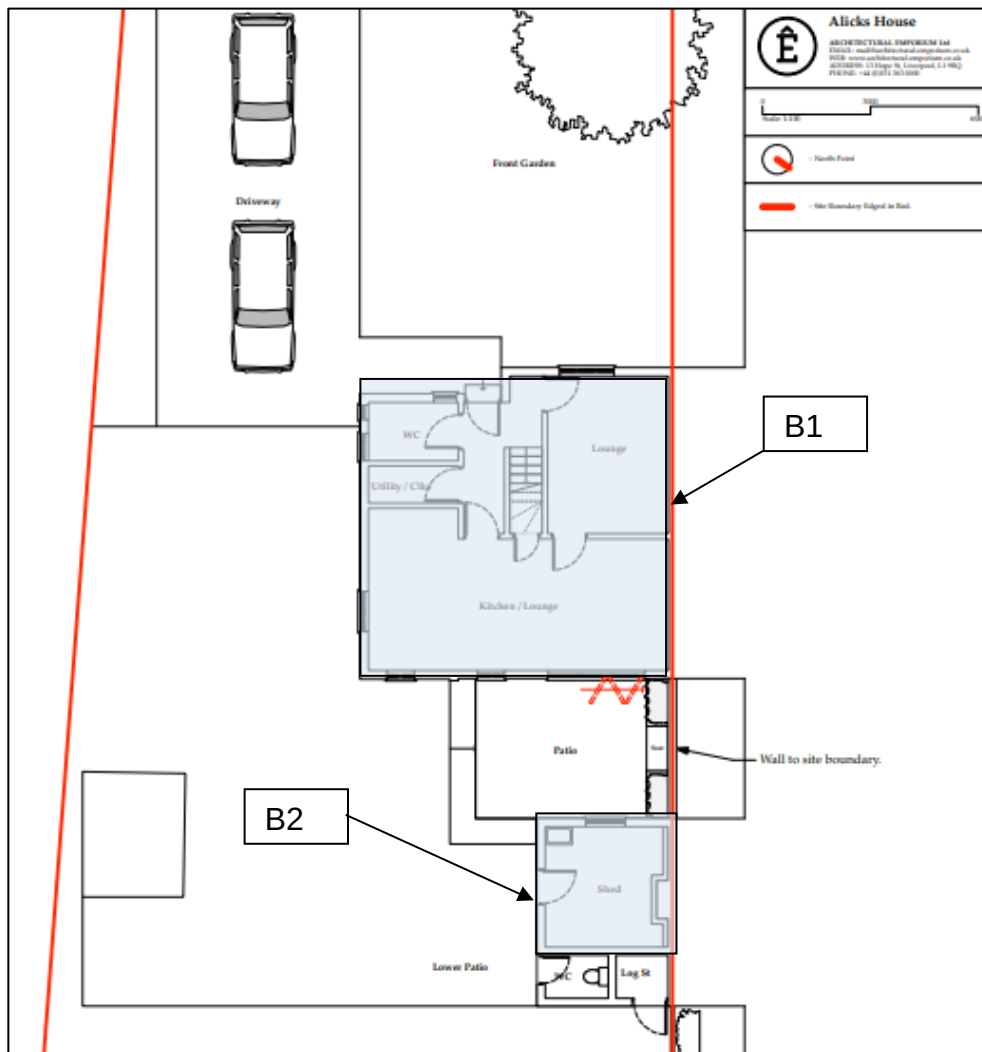


Table 7.1 – Building descriptions in relation to bats at Alick's House

B1 – Alick's House
Alick's House is a two storey, brick built, semi-detached dwelling to approximate maximum dimensions of 9.0 metres x 7.0 metres x 6.0 metres (length x width x height). The building has structural features such as UPVC doors and windows, fascia's, soffit boxes and gutters as well as stone sills and lintels. The building has a slate roof with both hipped and pitched sections which possess a skylight to the front of the property. Whilst the surveyor is not qualified to assess the structural integrity of the building, it was noted to be in a good aesthetic condition at the time of survey, with no degradation noted. Internally, no loft space is present, due to the conversion of the space; as a result, the building is considered unsuitable for breeding purposes for loft-dwelling species such as the brown long-eared bat, species which prefer open, dark loft spaces with consistent thermal characteristics. However, the building cannot be ruled out for purposes other than breeding. However, the surrounding habitat is generally considered unsuitable for this species specific foraging requirements, with an absence of favourable habitats such as woodland blocks in the immediacy. It is unknown whether a bitumastic underfelt was present; where present, underfelt or other such roof lining typically improves a buildings value to bats, notably for crevice-dwelling bats of the <i>Pipistrellus</i> genus, whereby the bats roost between the lining and the roof cover material provided external opportunities exist. NB: <i>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.</i> No Potential Roost Features (PRFs) were located on the building, with all of the structural elements noted to be tight fitting and no ingress opportunities noted, and no roof slates observed to be slipped, lifted or missing. Furthermore, the general fabric and roof of this building will not be impacted upon with the extension. Based on the above, B1 pertains to a potential bat roost suitability categorisation of 'None' in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).
B2 - Outhouse
B2 is a semi-detached, brick-built, single storey shed to the rear of B1 with a pitched slate roof; it comprised of three rooms and is to the approximate dimensions of 6 metres x 3.5 metres x 3 metres. The building supports features such as timber doors, single-glazed windows and barge boards, with brick lintels and stone sills. Whilst the surveyor is not qualified to assess the structural integrity of the building, it was noted to be in a moderate aesthetic condition at the time of survey with holes and slipped roof tiles present and degradation noted to the timber elements. Internally, no loft space is present, with all rooms open to the underside of the ridge; it is thus considered that the building is unsuitable for the breeding preferences of loft-dwelling species such as the brown long-eared bat. The largest room of the shed is lined with insulation boards, while the others have no lining; bitumastic underfelt or other such roof linings typically improve a building's value to bats, notably for crevice-

dwelling bats of the *Pipistrellus* genus, whereby the bats roost between the lining and the roof cover material provided external opportunities exist.

Several PRFs are located at this building; gaps were noted under the eaves at wall plate level to all elevations and beneath both the hip and ridge tiles, while a number of lifted / damaged / missing tiles were observed primarily on the northeastern elevation. All of these potential ingress points could potentially provide crevice opportunities for low numbers of bats.

Given the presence of PRFs, B2 is duly categorised as pertaining to '**Low**' bat roost suitability in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016).

Breeding Birds

- 7.2 In relation to WCA Schedule 1 specially protected bird species such as barn owl, no evidence was found to suggest any form of site use or historic nesting and the building and wider site are unsuitable for this species breeding requirements.
- 7.3 In relation to common bird species, evidence of recent nesting was found in the form of a wood pigeon (*Columba palumbus*) nest and broken egg found in the larch tree (*Larix sp.*) to the front of the property. However, presence of birds is not considered to be likely within the building, and the aforementioned PRFs are likely too small to be utilised by urbanised bird species.

8.0 Conclusions & Recommendations

Bats

- 8.1 Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by **Appendix I**, B1 at Alick's House is determined to offer **'None'** bat roost suitability whilst B2 presents **'Low'** bat roost suitability in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) (see **Figures 8.1-8.2**), warranting the requirement for further survey effort at the site before an impact assessment can be concluded.

Table 7.1. Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees where other methods such as PRF inspection are not possible, but unlikely to give confidence in a negative result). To be used in tandem with Table 7.2.

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
May to August (structures)	May to September ^a , with at least one of surveys between May and August ^b	May to September ^a , with at least two of surveys between May and August ^b
No further surveys required (trees)		

Figure 8.1 – Bat Conservation Trust extract on low roost suitability criteria

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.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).

Figure 8.2 – BCT extract on none roost suitability criteria

- 8.2 It is recommended that a single dusk emergence or dawn re-entry survey is conducted on B2 during the active season of bats (May – August, extending into September), in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence / re-entry.
- 8.3 If the survey confirms bat(s) or their roost(s) are found on site and will be impacted upon, then an EPSML may be required to legally commence with the proposals.
- 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, based on 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 2019 (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.

- 8.5 Where more detailed bat surveys are recommended by the Ecologist, following an initial daytime investigation, then Local Planning 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 2019 (as amended). 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.
- 8.6 Installation of overly harsh artificial lighting as part of any development that exceeds current levels may have a negative impact upon foraging / commuting bats in the landscape, subject to their presence, particularly if increased light spillage occurs in areas of that are currently free from illumination. A bat-sensitive lighting plan is therefore recommended in order to avoid potential impacts to bats that may use the surrounding treelines. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information (see **Table 8.1** overleaf):

Table 8.1 – Extract from *Bats and Artificial Lighting at Night*, BCT (August 2023)

Appropriate luminaire specifications: Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt
- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

Breeding Birds

- 8.7 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as barn owl, and no further surveys or recommendations are necessary in relation to specially protected birds.
- 8.8 In relation to common birds, no evidence of breeding birds was encountered within the buildings, with each building considered unsuitable for use by urbanised bird species. While evidence of nesting wood pigeon was observed within the larch tree onsite, this is not to be affected by the proposed works. As such, no further surveys or recommendations are necessary in relation to common bird species.

Biodiversity Enhancement

- 8.9 As a means of enhancement and aiding the design of the scheme in keeping with local and national planning policy considering biodiversity net-gain principles, the proposals may consider incorporating wildlife friendly provisions such as bat and bird boxes; the specifics of

the enhancement should be decided upon only after the recommended further bat surveys have been carried out.

9.0 Bibliography

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Appendix I: Site Photographs



Plate 1 – *Alick's House as seen from the southwest*



Plate 2 – *Rear elevation of the building*



Plate 3 – *Southeastern elevation of the building*



Plate 4 – *Character of the outbuilding to rear*



Plate 5 – *Additional aspect of outbuilding*



Plate 6 – *Slipped slates evident on roof of outbuilding*



Plate 7 – Gap beneath roof tiles at wall plate of outbuilding



Plate 8 – Northeastern aspect of outhouse



Plate 9 – *Interior of western portion of outbuilding*

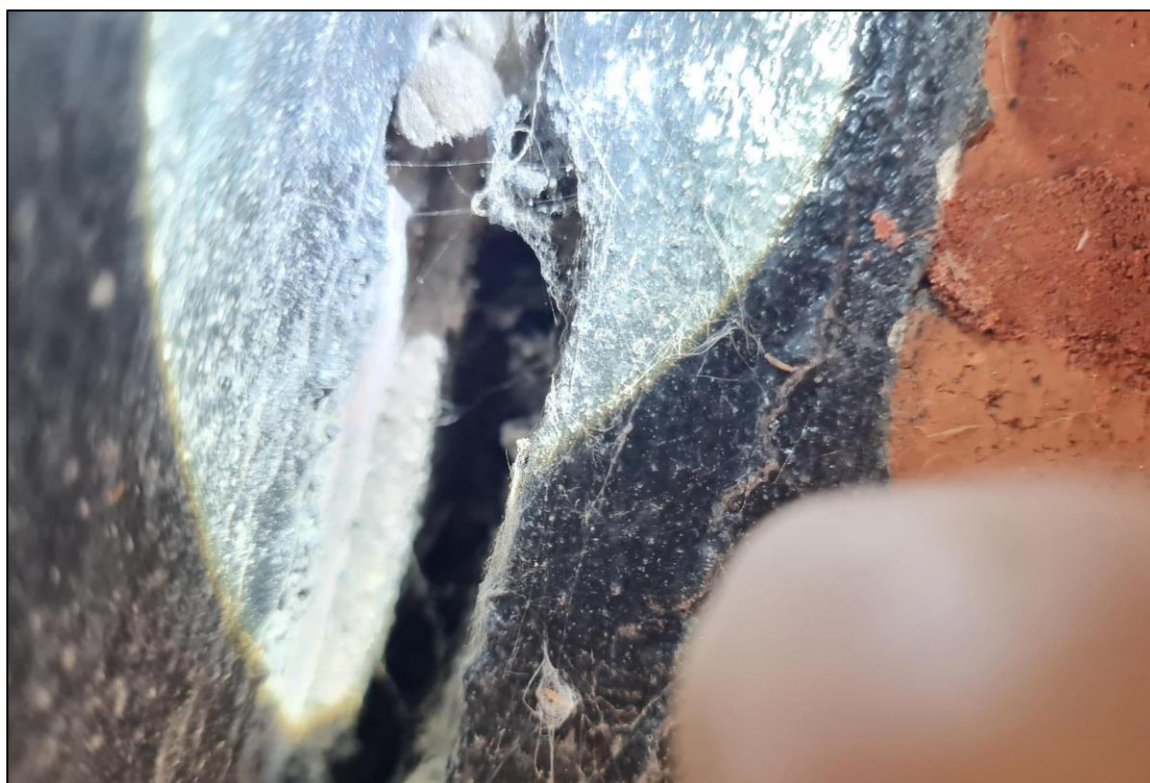


Plate 10 – *Gap underneath eaves of outhouse*

Appendix II: Biodiversity Enhancement: General Recommendations

Indicative Enhancement

Bats

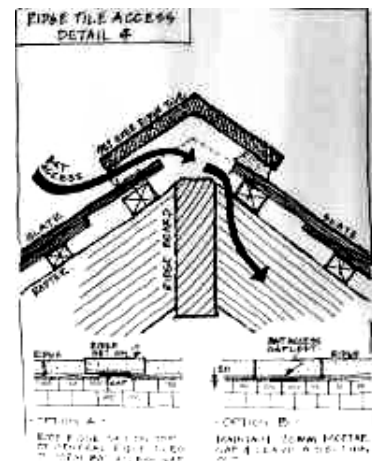
Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



Ridge access

Where appropriated, 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 instated at gable elevations, roost provision may be instated 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 may include the Eco Kent Bat Box, with more examples present online.



Breeding Birds - House Sparrow

The Sparrow Terrace has been designed to help redress the balance of falling House Sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House 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 buildings.



Breeding Birds - Other

This traditional design has proved to be highly effective in attracting Robins, as well as other small species such as Black Redstart, Spotted Flycatcher and Wren. It is designed to be installed on the walls of houses, barns, garden sheds or other buildings and should be hung so that the entrance is to one side (at an angle of 90° to the wall). The front panel can be easily removed for cleaning.

This type of box should not be made conspicuous on a tree or bush because small predators can enter through the unprotected opening. By hanging on a wall, predators won't be able to reach the box. Alternatively hide the box in Ivy, Honeysuckle or other climbing plants.



Invertebrates - Bee bricks

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used.

Available in a choice of four colours: white grey, dark grey, yellow and red.

Specification

- * Material: Concrete
- * Origin: Cornwall, UK
- * Dimensions: W 215mm x D 105mm x H 65mm
- * Weight: 2.9kg
- * Colours: White grey, yellow, dark grey and red



Native Planting and/or Landscaping

New feature landscaping should incorporate native woody plants as opposed to non-native species that are of significantly less benefit to biodiversity. Species such as Blackthorn (*Prunus spinosa*), Honeysuckle (*Lonicera periclymenum*), Rowan (*Sorbus aucuparia*), Guelder-rose (*Viburnum opulus*) and Hawthorn (*Crataegus monogyna*) are native and will provide a valuable resource for a myriad of wildlife as opposed to non-native, exotic species which are generally much less effective, particularly to pollinator groups including bees, butterflies and moths.

Suitable Trees	Suitable Woody Shrubs
English Oak (<i>Quercus robur</i>)	Hawthorn (<i>Crataegus monogyna</i>)
Rowan (<i>Sorbus aucuparia</i>)	Honeysuckle (<i>Lonicera periclymenum</i>)
Wild Service Tree (<i>Sorbus torminialis</i>)	Gelder Rose (<i>Viburnum opulus</i>)
Silver Birch (<i>Betula pendula</i>)	Elder (<i>Sambucus nigra</i>)
Ash (<i>Fraxinus excelsior</i>)	Wild Privet (<i>Ligustrum vulgare</i>)
Goat Willow (<i>Salix capraea</i>)	Blackthorn (<i>Prunus spinosa</i>)
Beech (<i>Fagus sylvatica</i>)	
Wild Cherry (<i>Prunus avium</i>)	