



Land at Rear of 40 Victoria Road,
Fleur-de-lis, Blackwood

Dusk Emergence Survey Report

September 2023

Acer Ecology

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DOCUMENT CONTROL

Land at Rear of 40 Victoria Road, Fleur-de-lis, Blackwood Dusk Emergence Survey				
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Summary

Brief and Site Location	This report presents the findings of dusk emergence surveys of Land at the Rear of 40 Victoria Road, Fleur-di-lis, Blackwood, NP12 3UG (Ordnance Survey Grid Reference centred at: ST 1548 9625).
Proposed Works	The proposed development works comprise the demolition of the existing buildings on site to make way for the construction of five new dwellings with associated parking. Proposals also comprise the construction of a road into the site. A planning application has not yet been submitted at the time of writing.
Survey Methodology	The survey involved a total of two dusk emergence surveys of the house (B1).
Results of Dusk Emergence Survey	No bats emerged from the house (B1) during the dusk emergence surveys.
Evidence of Nesting Birds	No evidence of nesting birds was found during the preliminary ecological appraisal or dusk emergence surveys of the house (B1).
Predicted Impacts of Development on Bats and Nesting Birds	Based on the conclusion that bats are unlikely to be using the house (B1) as a roost site and no evidence of nesting birds was identified, no negative impacts on bats and nesting birds are anticipated.
Licensing Requirements for Bats	None required.
Required Actions	Detailed recommendations are given in Section 6 of this report. These include precautionary methods and guidance for action to take if bats are found during the works.

1. Introduction

1.1. Brief

This report presents the findings of dusk emergence surveys of the house (B1) at Land at the Rear of 40 Victoria Road, Fleur-di-lis, Blackwood, NP12 3UG (Ordnance Survey Grid Reference centred at: ST 1548 9625¹). The house is situated within the boundary of Caerphilly County Borough Council.

1.2. Proposed Works

The proposed development works comprise the demolition of the existing house on site to make way for the construction of five new dwellings. Proposals also comprise the construction of a road into the site.

A planning application has not yet been submitted at the time of writing. The proposed development plan is provided in Drawing 1: Proposed Development Works.

1.3. Legislation and Planning Policy

1.3.1. Bats

All UK species of bat are designated as 'European Protected Species'. Their breeding sites or resting places² (roosts) are fully protected under the Wildlife and Countryside Act 1981³ (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018⁴, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019⁵.

Works affecting bats are subject to licensing procedures by Natural Resources Wales (NRW). The legal protection and licensing procedures are summarised in Appendix 1.

1.3.2. Nesting Birds

All wild British birds (whilst building nests, nesting and sitting on eggs) and their nests and eggs, (with certain limited exceptions⁶) are protected by law under Section 1 of the Wildlife and Countryside Act 1981⁷ (as amended) and the Countryside and Rights of Way Act 2000⁸. Some species, such as barn owls (*Tyto*

¹ Latitude and Longitude: 51.658674, -3.2231784 / what3words: unearthly.efficient.harsh

² Resting places are defined as 'areas that are essential to sustain an animal or group of animals when they are not active' (Anon 2007).

³ <https://www.legislation.gov.uk/ukpga/1981/69>

⁴ <http://www.legislation.gov.uk/uksi/2018/1307/contents/made>

⁵ EU Exit – The European Union (Withdrawal) Act 2018 (the EUWA) will end the supremacy of EU law in UK law, will convert directly applicable EU legislation (in particular, EU Regulations and Decisions) as it stands at the moment of exit into domestic law, and will preserve legislation previously made in the UK to implement EU obligations. The legislation will generally have the same effect that it had before the UK left the EU, unless or until it is changed by Parliament. In some cases, there may be changes in referencing and guidance as a result of secondary legislative amendments.

⁶ Details of the exceptions are available at <https://bit.ly/2KiQTFH>

⁷ <https://www.legislation.gov.uk/ukpga/1981/69>

⁸ <https://www.legislation.gov.uk/ukpga/2000/37>

alba), are listed in Schedule 1 have additional protection from disturbance during the breeding season as do their nests, eggs and dependent young.

1.4. Historic Data

A preliminary ecological appraisal was produced by Acer Ecology Ltd. (2023). Five of the six buildings on site were identified as having potential for roosting bats, although only the house is proposed for demolition. A summary of this is provided in Appendix 2. Recommendations also included undertaking a reptile survey and CEMP of the site.

1.5. Survey Scope

The surveys comprised two dusk emergence surveys of the house (B1).

1.6. Reporting

This report aims to:

- Outline the survey methodology used;
- Present the results of the survey;
- Provide an interpretation of the survey results;
- Determine the need for further targeted surveys on site; and
- Provide suitable recommendations in line with planning policy and wildlife law including potential licencing requirements, mitigation, compensation and enhancement measures.

2. Methods

2.1. Field Study

2.1.1. Dusk Emergence

The evening dusk emergence surveys commenced 15 minutes prior to sunset, and continued 90 minutes after sunset. The first survey was conducted on 7th July 2023 by Daisy Smith, Alice Thorne and Lucy Taylor. The second dusk emergence survey was undertaken on 5th August 2023. Surveyor details can be found in Appendix 3.

The surveyors were all equipped with Elekon Batlogger M bat detectors alongside a Nightfox Red infrared camera each supplemented with a Nightfox XB5 850nm Infrared LED flashlight. Infrared cameras were used because they are always on and not prone to distraction, and they aid in the detection of bats in low light levels from 45 minutes after sunset until 120 minutes after sunset. Video footage was subsequently viewed using VLC Media Viewer.

In accordance with Section 2.6.1 of the Bat Conservation Trust's Bat Surveys for Professional Ecologists (Collins, 2016) surveys were undertaken during nights with temperatures above 10°C at sunset. The surveys were also undertaken in the absence of rain and strong wind (5.4 m/s or greater, which is equivalent to 13 mph or Beaufort 4).

2.1.2. Survey for Nesting Birds

A visual search was undertaken for active bird nests, as well as any signs which might indicate either past or current nesting, such as guano, singing birds, birds carrying nesting material, food items, faecal sacs and calling chicks.

2.1.3. Constraints

General Temporal Constraints

An ecological survey can only identify what was present on site at the time it was conducted. However, habitat usage by species can change over time.

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3. Results

3.1. Field Study

Table 1: Summary of Conditions During Dusk Emergence Surveys

	Survey 1	Survey 2
Date	07/07/2023	05/08/2023
Sunset/Sunrise Time	21:31	20:52
Start Time	21:15	20:27
Finish Time	23:00	22:27
Start Temperature (°C)	20	16
Sunset Temperature (°C)	20	16
Rain	None	None
Wind (Beaufort scale)	1	0
Cloud Cover (Oktas)	4	3

Table 2: Summary of Dusk Emergence Surveys Results

	Survey 1: Dusk Emergence	Survey 2: Dusk Emergence
Emergences/ Re-entries	No bats emerged from or interacted closely with the house.	No bats emerged from or interacted closely with the house.
Important Commuting/ Foraging Routes	Bats regularly foraged in a north to south direction, within the garden at the front of the house. Bats frequently commuted in a west to east direction, adjacent to the northern side of the house.	Bats frequently commuted east to west along the treeline in the rear garden.
Bat Activity	Moderate levels of activity of common pipistrelles (<i>Pipistrellus pipistrellus</i>) were recorded throughout the first survey with lower levels of activity of soprano pipistrelle (<i>Pipistrellus pygmaeus</i>) recorded.	Moderate levels of activity of common pipistrelles were recorded throughout the survey.

3.2. Nesting Bird Survey

No signs of recent nests were found within or on the exterior of the house (B1) during the dusk emergence surveys.

4. Evaluation

4.1. Summary of Survey Results - Bats

The dusk emergence surveys found no evidence of bats roosting within the house (B1).

4.2. Summary of Survey Results - Birds

No evidence of past or current nesting by birds was observed during the dusk emergence surveys of the house (B1).

5. Impact Assessment

5.1. Potential Impacts of Developments on Bats

Based on the conclusion that bats are unlikely to be using the house (B1) as a roost site, no negative direct or indirect impacts on bats are anticipated.

5.2 Potential Impact of Development on Birds

Based on the conclusion that birds are not currently nesting within or on the house (B1) no negative direct or indirect impacts on birds are anticipated due to the proposed works.

6. Recommendations

6.1. Licensing Requirements for Bats

A protected species licence from NRW is not required for works to the house (B1) as the bat survey results indicate a likely absence of roosting bats.

6.2. Measure to Avoid Disturbing, Injuring or Killing Bats

No evidence of any use by roosting bats were recorded on site and it is therefore highly unlikely that bats or their roosts will be affected by the works. No precautionary timing conditions on works are required. However, it is not possible to rule out bat use entirely, and there is also a risk of an offence being committed if active birds' nests are present. The following recommendations are made to minimise risks to bats and birds:

It will be clearly understood, and contractors made aware that in the event of any bats being found, the contractor must halt works. Appropriate advice will be obtained from a suitably qualified bat consultant or NRW and, if necessary, a bat development licence obtained before work can resume;

If any active bird nests are found these will be protected, along with an appropriate buffer zone of 5-10m, until the nesting is complete, and the young have fledged;

Contractors will check for the possible presence of bats on the undersides of roofing tiles, fascias, soffits and bargeboards etc. as they are lifted off. This is especially important at the outset of the works, since once the works have started, the disturbance is likely to drive any bats which are present away voluntarily; and

The services of an appropriately qualified and licensed ecological consultant will be available on an 'on-call' basis at all stages of the works to deal with any unexpected encounters with bats or nesting birds. Contact details of such will be held on site. Acer Ecology Ltd. could be retained to provide this support.

6.3. Ecological Enhancement Measures

6.3.1. Birds

One Vivara Barcelona WoodStone open nest box could be installed on the large red maple (*Acer sp.*) at the centre of site. If installed it should be located in a secluded position, ideally within dense cover and at a minimum height of 3m from the ground level and ideally orientated to face north or east. The bird box will be positioned away from horizontal branches directly below or above which could be easily accessed by cats. See Appendix 4.

6.3.2. Bats

One Vivara Pro WoodStone bat box could be installed on the large red maple tree in the centre of the site, to provide roosting habitat for bats. If installed, the bat box will be 3m above ground level, clear of obstructions such as branches. The bat box should be positioned away from horizontal branches directly below or above the bat box which could easily be accessed by cats. Where applicable, the bat boxes should utilise straps rather than nails to avoid damaging trees.

6.4. Longevity of Report

Bat Surveys for Professional Ecologists (Collins, 2016) states that the survey data should ideally be from the last survey season before a planning or licence application is submitted, although the length that survey data remains valid should be decided on a case-by-case basis and is dependent upon several factors⁹. It is considered that if development works do not begin within eighteen months (CIEEM, 2019) to two years of the date of this report, an update survey may be required in accordance with guidance in BS 42020:2013¹⁰ and CIEEM (2019), to determine if conditions and evidence of bat use has changed since described in the current report.

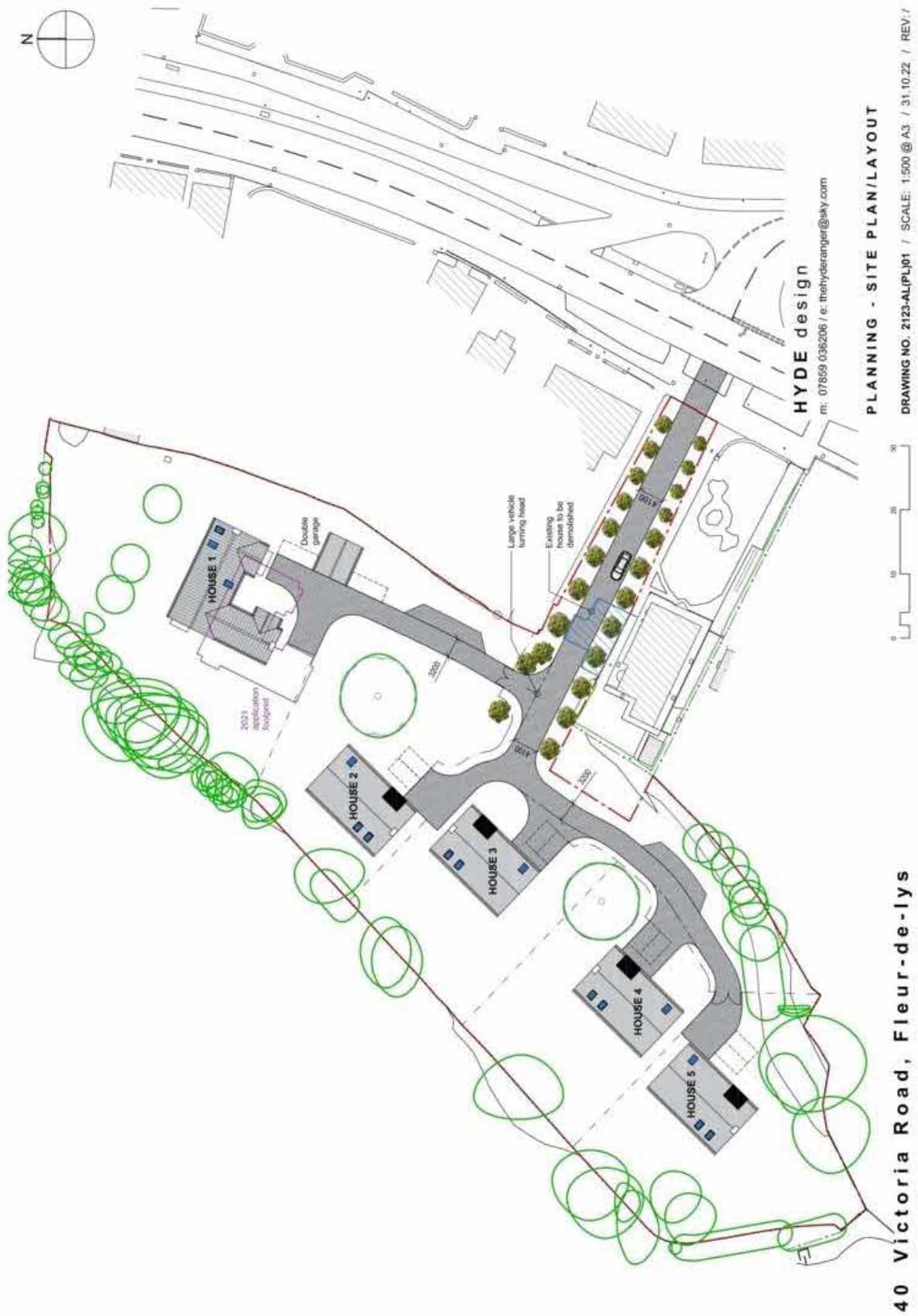
⁹ The factors identified are as follows: Were the original surveys carried out according to good practice guidelines?; Were the original surveys constrained in any way?; Do the results of the original surveys support the original conclusions and are these still relevant?; Has the nature of the site or the surrounding area changed since the original surveys were undertaken; and are additional surveys likely to provide information that is material to a decision, the design of mitigation measures, or specific advice relating to a proposed activity.

¹⁰ As set out in Section 6.2.1, Point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

7. References

- Anonymous (2007) *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*. Final version, February 2007.
- BSI (2013) *BS 42020:2013 Biodiversity – Code of practice for planning and development*. British Standards Institution, London.
- CIEEM (2019) Advice Note on the Lifespan of Ecological Reports and Surveys <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>
- CIEEM (2016) *UK Guidelines for Accessing and Using Biodiversity Data*. Chartered Institute of Ecology and Environmental Management (CIEEM).
- Collins, J (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- Eaton, M, Aebischer, N, Brown, A, Hearn, R, Lock, L, Musgrove, A, Stroud, D and Gregory, R (2014) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds* 108. December 2015. 708-746. Available online at <http://bit.ly/2h23DqV>.
- Institute of Lighting Professionals (2012) *Guidance for The Reduction of Obtrusive Light*.
- Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004) *Bat Workers' Manual (3rd Edition)*. Joint Nature Conservation Committee, Peterborough.
- Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. Natural England, Peterborough.

Drawing 1: Proposed Development Works



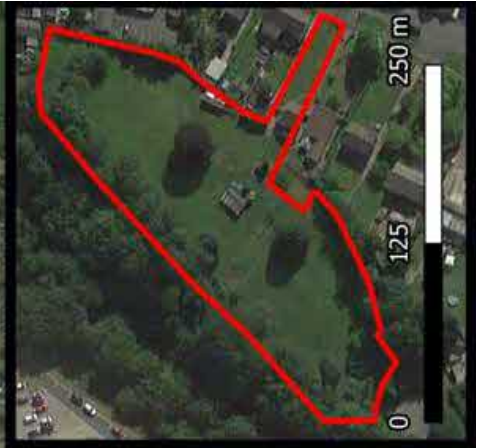
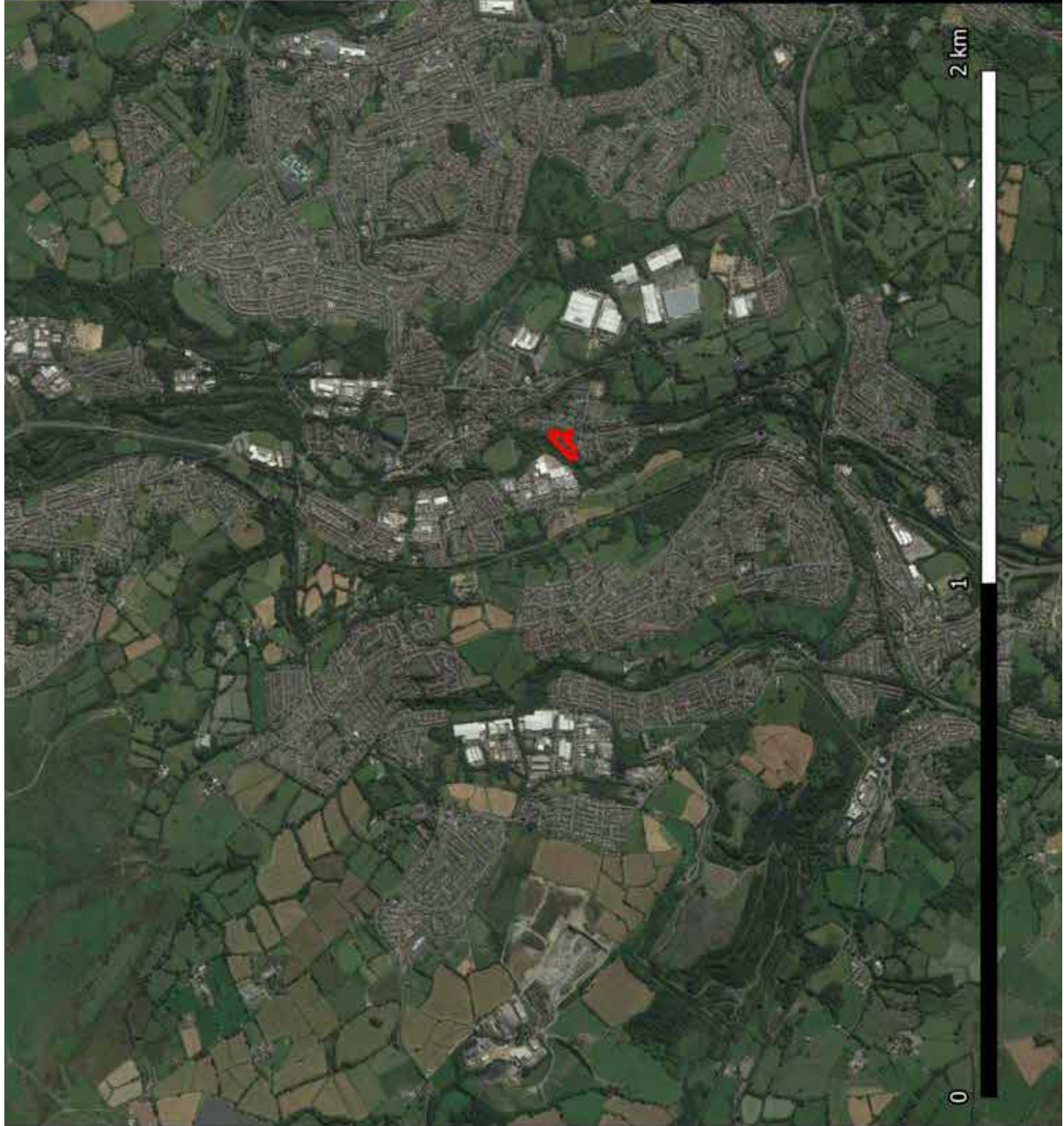
Plan 1: Location Plan



**Land at rear,
40 Victoria Road,
Fleur-di-lis, Blackwood**

Location Plan

© QGIS and Google Maps data 2023



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Plan 2: Recommended Surveyor Positions



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Appendix 1: Bat Ecology and Legislation Protecting Bats and Their Roosts

Bat Ecology

There are 17 known breeding species of bat found in the UK, with additional species recorded as migrants or vagrants. All of them are small, nocturnal, flying, insectivorous mammals that are under conservation threat and many having undergone massive population declines over the last century. Some species, such as common and soprano pipistrelle are relatively common and widespread in the UK, while others, such as greater horseshoe (*Rhinolophus ferrumequinum*) bats, have an extremely restricted distribution.

Most bats will use a variety of roosts of different types throughout the year. The winter hibernation sites typically have cool, humid conditions with a stable microclimate and low levels of disturbance. Most British bats hibernate in caves or artificial structures that fulfil these requirements such as mines, tunnels and cellars. Bats emerge from hibernation around late March or early April and move into transition or intermediary roosts. Around early May, female bats gather in colonies to form summer or maternity roosts, and it is here where they will give birth between late May and early July. A colony may consist of many individuals (sometimes hundreds of bats) of mixed age and sex. Roosts may be in a variety of habitat types including tree-holes, caves, buildings and other secure crevices or internal spaces with appropriate stable temperatures and humidity. Bats may change roost locations many times during a year and colonies may split up and reform during this period. Males occupy solitary roosts in autumn, to which they attract females for mating.

Legislation

All British bat species and any place used for shelter or protection, or a breeding site or resting place (their roosts) are fully protected under the amended Wildlife and Countryside Act 1981 through inclusion in Schedule 5. The roosts are protected irrespective of whether bats are present at the time. All bats are 'European Protected Species' and fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019. These pieces of legislation make it illegal to deliberately or recklessly:

- kill, injure or capture bats;
- disturb bats;
- damage, destroy, or obstruct access to bat roosts (including sites that are currently unoccupied);
- possess or transport a bat or any part of a bat unless acquired legally; or
- sell, barter or exchange bats or parts of bats.

Disturbance is defined as that which is likely to impair bats ability:

- to survive, to breed or reproduce, or to rear or nurture their young;
- to hibernate or migrate; or
- to affect significantly the local distribution or abundance of the species to which they belong.

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Habitats Regulations Licensing

If a European Protected Species will be affected by a development, Natural Resources Wales (NRW) can issue licences under the Habitats Regulations to permit otherwise prohibited acts. Licences for certain activities can be granted providing “3 tests” are satisfied, that is:

1. the purposes of “preserving public health or safety, or for reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”;
2. there must be “no satisfactory alternative”; and,
3. the derogation is “not detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

Licences are issued by NRW, with NRW assessing Test 3, and the Local Planning Authority assessing tests 1 & 2 (where proposals are not subject to planning, then NRW alone will assess all three tests). Where Planning regulations apply, NRW will only issue a licence after determination of the planning application.

The licence application will require the production of a detailed method statement, which sets out the activities to be carried out under the licence to minimise the risk of bats being harmed during construction works, and to ensure that bats will be conserved during the development of the site. This will need to detail the mitigation proposed (such as the replacement or compensation roost), the timescale and schedule of works, the number, size and locations of bat access points to be provided, the type of materials to be used (roofing material, roof lining, fascias, soffits and bargeboards etc.), lighting proposals, action to be taken in the event bats are found during works and a post-development monitoring programme. The method statement will need to be accompanied by scaled plans and maps detailing the bat mitigation features. A cross-section of the access points and roost space is often required. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of development works. In some instances, a method statement is requested by the Local Planning Authority or Natural Resources Wales before the planning application is determined.

Environment (Wales) Act 2016

The Environment (Wales) Act 2016¹¹ dictates that Local authorities have a duty to have regard to the conservation of biodiversity in exercising their functions. The duty affects all public authorities and aims to raise the profile and visibility of biodiversity, to clarify existing commitments relating to biodiversity, and to make it a natural and integral part of policy and decision making. Part 1 Section 7 of the Act provides a list of the ‘*living organisms of principal importance for maintaining and enhancing biodiversity in relation to Wales*’. This includes seven bat species (soprano pipistrelle, barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteini*), noctule, brown long-eared, lesser horseshoe and greater horseshoe bats).

¹¹ <http://www.legislation.gov.uk/anaw/2016/3/contents>

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Appendix 2: Suitability for Summer Roosts (Acer Ecology Ltd. (2023) Preliminary Ecological Appraisal)

Building Number	Evidence of Bats	Roosting Potential
B1	None	Moderate
B2	None	Moderate
B3	None	Moderate
B4	None	Low
B5	None	Negligible
B6	None	Moderate

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Appendix 3: Surveyor Experience

07/07/2023

Daisy Smith – Daisy graduated with a degree in Zoology from the University of Southampton. She works for Acer Ecology Ltd as an Assistant Ecologist and has undertaken numerous dusk emergence and dawn re-entry bat surveys. Further details of her qualifications and experience can be found at: <https://www.linkedin.com/in/daisy-smith-0889561b3>.

Alice Thorne – Alice is a second-year university student at the University of South Wales studying Natural History. During her degree she has undertaken a range of ecological survey techniques including grey seal population counts, bat surveys and kick sample surveys. She is in her second season of bat survey work.

Lucy Taylor – Lucy is in her second season of bat survey work. She has undertaken numerous bat surveys and received training from Acer Ecology Ltd.

05/08/2023

Anita Connors – Anita graduated from the University of South Wales with a degree in international wildlife biology. She is currently working for and receiving training from Acer Ecology and is in her first bat survey season. Full details of Anita's qualifications and experience can be found at: <https://www.linkedin.com/in/anita-connors-a2a887182/>

Caleb Davis – Caleb is currently undertaking his first season of bat dusk and dawn surveys with Acer Ecology Ltd.

James Penrose – James is Veterinary Medicine student who is undertaking his first year of bat survey work.

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Appendix 4: Vivara Barcelona WoodStone Open Nest Box

These attractive nestboxes are manufactured from WoodStone which is a mix of concrete and FSC certified wood fibres. Unlike a traditional wooden nest box, these boxes will not rot away or deteriorate and are guaranteed for 10 years. This robust material safeguards against attacks from predators such as woodpeckers, cats and squirrels, whilst also providing a well-insulated interior with a more consistent internal temperature than an ordinary wooden box. This is especially important during the breeding season and ensures that young birds have a greater chance of survival. Nesting sites have become rare for cavity nesting birds due to changes in woodland management practices, so you can provide much-needed space for rearing chicks and birds that are roosting overwinter with these durable, long-lasting nest boxes.

These open nest boxes are suitable for wrens, robins, spotted flycatchers, pied and grey wagtails, song thrushes and blackbirds, and they are available in brown, green or grey to complement both natural woodland and garden settings.

The best height for your nest box is between 1.5m and 3m high, and open nest boxes should be sited in undergrowth such as ivy to provide cover for the nest.

These nest boxes have a removable front panel for easy cleaning. Although birds will clean their own nest boxes before each breeding season, cleaning the boxes out at the end of each breeding season may encourage them to be used again in future years, as it reduces parasites. The nesting time of birds varies from species to species so we suggest you wait until October when the last of the birds will have left before cleaning. The nest may come out easily but if there are any deposits scrape them out. We recommend using hot water rather than chemicals to remove any parasites that remain.

Specification

- * Width: 19cm
- * Height: 24cm
- * Length: 17.5cm
- * Entrance hole: Open



Appendix 5: Vivara Pro Woodstone Bat Box



The Vivara Pro WoodStone Bat Box is a hard-wearing bat box. It is made from WoodStone, a mixture of wood fibres from fully certified FSC wood sources and concrete, and it is designed to last for years.

It is breathable so there will be no problems with condensation and WoodStone maintains a consistent temperature inside, providing excellent insulation for roosting bats. WoodStone also provides a rough surface which the bats can easily cling to and move around the box. The Vivara Pro WoodStone Bat Box is black with a grey front panel.

Siting - The box can be attached to either a wall or a tree and should be sited at a height of at least 3 m from the ground. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups.

Dimensions - (H) 250 x (W) 190 x (D) 165 mm, weight: 4.5 kg.

Bat Box Availability

The bat box is available from NHBS (www.nhbs.com) where it retails at approximately £20.99 including VAT plus postage costs.