Nick Tomlinson Ecology

Old Orchard

Preliminary Bat Roost Assessment

November 2023

Nick Tomlinson
01305 773 502
07795 347 666
nick@elephantsears.org
www.nicktomlinsonecology.com

Data Table

Address of Site	Old Orchard, Whalley Lane, Uplyme, Uplyme, Devon, DT7 3UP
National Grid Ref.	SY 3263 9298
Client Contact Details	Mr & Mrs Wallis
	Address as above
Timetable of events	
Initial Survey	7th November 2023
Report Issued	28th November 2023

Executive Summary

a) The survey involved a two storey brick and block built detached building on which the external vertical surfaces have been rendered and whitewashed from ground to eaves. There is one dormer window on the rear roof pitch and two on the front pitch.

b) The proposed works are to covert the roof void to residential use, lifting the roof height in the process, and adding a two storey extension to the rear of the property. A small porch will be added in the front elevation and a single storey extension run along the south-west elevation to form a garage.

c) No evidence was found, either internally or externally, to indicate any use of the building by cavity or crevice dwelling bats and, based upon the survey work undertaken, it is not believed bats were, *at the time of the survey*, making use of the building, as either a long-term established roost or as a temporary, transitory or feeding roost.

d) Given the lack of evidence of bat use the building is classified as having *Negligible Suitability* for bats and therefore no further survey work is required and no timing constraints are placed on when the works can take place.

e) Enhancements for bats and bees, in line with the National Planning Policy Framework, are set out

1. Introduction

1.1. There are a number of factors to consider when undertaking an ecological assessment of a development proposal, regardless of the size of the proposed works.

1.2. All of the UKs bat species are afforded protection, under a number of pieces of legislation, from disturbance, injury or death and from impacts on places they use for rest or for breeding[1] (*see Appendix A*).

1.3. Mitigation for any such impact will be required and may, in some cases, require a mitigation licence[2] to be secured before the works can proceed.

1.4. In addition, where developments do not impact directly on a protected species, but do impact on biodiversity in general by, for instance, the loss of habitat through the removal of hedgerows or trees, mitigation for that loss will also be required.

1.5. Finally, the National Planning Policy Framework (*NPPF*) states that developments, regardless of scale, should not only seek to prevent damage to biodiversity but should seek to enhance it.

1.6. Local Planning Authorities (*LPA*) are expected to apply the NPPF in the exercise of their duties and to seek enhancements for biodiversity, even where protected species are not identified as being present on a site or impacted by the proposed works.

1.7. That duty is incorporated into the planning system via the need to undertaken ecological surveys to support planning applications.

[1] Typically described as a roost where referring to bats

[2] A mitigation licence allows an otherwise illegal act, such as the disturbance of a bat, or the damage, destruction or obstruction of a bat roost, to proceed and is required for works on a bat roost unless the works can be done in such a way and/or at such a time that an offence will not be committed

2. Reason for the Survey

2.1. Nick Tomlinson Ecology were commissioned (*August 2023*) to undertake a Preliminary Bat Roost Appraisal (PBRA) at *Old Orchard*, a detached property set within its own ground (*see Figures A & B, in Appendix B*).

2.2. The proposed works are to covert the roof void to residential use, lifting the roof height in the process, and adding a two storey extension to the rear of the property. A small porch will be added in the front elevation and a single storey extension run along the south-west elevation to form a garage (*see Figures C & D, in Appendix B*).

2.3. In assessing a building's potential for bats not only is the actual presence of bats, or their signs, a determining factor as to whether further survey work is required, but so is the potential for them to be present.

2.4. The purpose of the surveys was, therefore, to establish whether there was evidence of, or potential for, bats to be using the site and determine how/if they may be affected by the proposed works.

2.5. This information can then be used to inform both the planning and development processes, enabling the needs of the protected species to be taken into account together with those of the owners of the property.

3. Limitations and Restrictions

3.1. There were no limitations or restrictions were placed on the survey.

3.2. Changes to the physical nature of a building, whether due to alterations or repairs, or deterioration due to the passing of time, can result in a building becoming more suitable as a roosting location for bats.

3.3. As a result, although this survey found no evidence for use of the building by bats, *at the time of the survey*, no guarantee can be given that bats will not begin to make use of the building in the future.

3.4. In order to reflect that potential for change, the findings of this report remain valid for two years from the date of the survey. If the planned works are not undertaken within those two years then revised surveys must be undertaken to re-assess the situation with regards protected species use of the building.

3.5. In addition, if, at any point during any of the works, bats, or signs of bats, such as droppings, are found, all work on the area the bat, or droppings, were found in must cease, the area in which the animals have been found made secure, with care taken not to injury the animals when replacing material, and a suitability experienced ecologist engaged. Works must not re-start until the ecologist has had time to assess, and resolve, the situation.

4. *Survey Method*

4.1. The survey reported on in this report was undertaken in line with survey guidelines in place at the time of the survey[3].

4.2. The survey was were undertaken by Nick Tomlinson, of Nick Tomlinson Ecology. Nick has over 20 years of experience undertaking ecological surveys and holds Natural England Class Licence CL19 and CL20[4]. A brief biography is given in Appendix C.

4.3. The PBRA took place on the *7th November 2023.* The weather on the day of the survey was dry, sunny, with some scattered cloud and an occasional light breeze and showers.

4.4. Equipment used (as required) included binoculars, bat detector (Elekon Batscanner), head torch, high powered torch (350 lumens), endoscope, camera (with x260 zoom function) and mirrors (flat and telescopic).

2.1. A **Desk Study** was undertaken involving:

2.1.1. As the property lies within Devon, but within 1km of the Dorset border a data search was undertaken through both the Devon and the Dorset Environmental Records Centres and through the Devon Bat Group. This would identify any previous records associated with the property and also any known roosts in the area. This adds to the overall interpretation of the site and also puts any findings in context.

2.1.2. A review, using Natural England's MAGIC[5] interactive mapping system, to determine if there were any protected sites, designated for bats, within 2 km of the site, and if any European Protected Species Licences had been granted within that radius.

2.2. A **Physical Survey** of the building was undertaken:

2.2.1. Internally, where appropriate, looking for evidence of use by bats. The kind of evidence searched for included the actual presence of bats, feeding signs (such as insect wings), or bat droppings, any of which would indicate the use of the site by bats. Whilst the internal surveys were underway a bat detector (Elekon Batscanner) was carried to alert the surveyor to the ultrasonic calls of any bats present[6].

2.2.2. Externally, where the surfaces of the buildings were checked for potential access points, e.g. cracks, gaps etc. All surfaces were checked, either directly or through binoculars, for signs that might suggest the use the buildings by bat, including droppings stuck on surfaces, worn or stained gaps or smoothed surfaces surrounding gaps.

[3] Collins, J. (ed) (2023) **Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)**. The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6

[4] Registration number 2015-12965-CLS-CLS and 2015-12966-CLS-CLS respectively

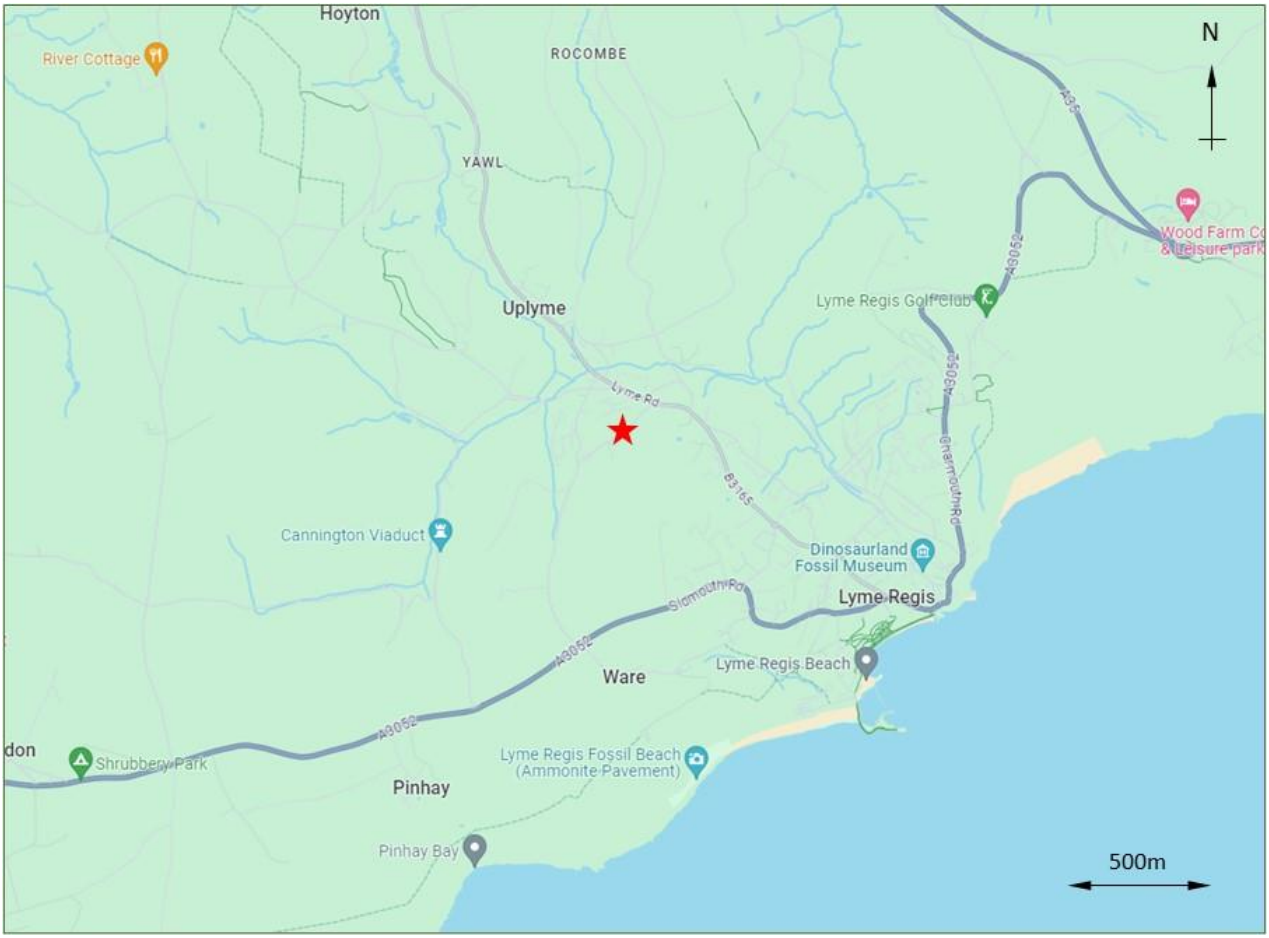
[5] **M**ulti **A**gency **G**eographic **I**nformation for the **C**ountryside, https://magic.defra.gov.uk/magicmap.aspx

[6] The detector scans all frequencies at the same time and so will alert the surveyor to any ultrasonic calls, of any frequency, that may occur due to bats being present but not visible. The detector will also alert the surveyor to any deterrents that may be in situ, including, for instance, rodent scarers which emit ultrasound that may disturb bats.

5. Desk Study Results

5.1. Site Location

5.1.1. The site (*marked with the red star in the figure below)* is located in Devon, in Uplyme, to the north on Lyme Regis.



5.1.2. The property sits on the southern edge of an urban setting, with large and well developed gardens surrounding it, forming good foraging habitat. To the south of the site is a largely arable agricultural landscape, through which the site is well connected to the coastal undercliffs (see figure below), woodland blocks and the wooded River Lim corridor, all good foraging areas (*see figure below*).

5.2. Protected Sites and European Protected Species Licence Search

5.2.1. There are no SPA[7] or Ramsar[8] Sites within 2km of the site.

5.2.2. The *Sidmouth to West Bay* SAC[9] lies within 2km of the site. Designated for its marine habitats, this sites will not be impacted by the proposed works.

5.2.3. There are two SSSI[10] within 2km of the site, *Shapwick Grange Quarry* (designated for its biostratigraphic importance) and *Axmouth to Lyme Regis Under Cliffs SSSI* (designated for its palaeontological/geological). The proposed work will not impact on any of the interest features of these sites.

5.2.4. Four European Protected Species Licences (for bats) have been granted within 2km of the site:

- 2015-14265-EPS-MIT-1 (granted in 2016) for the destruction of a resting and breeding place for **Lesser Horseshoe Bat** (*Rhinolophus hipposideros*), **Serotine Bat** (*Eptesicus serotinus*), **Common Pipistrelle Bat** (*Pipistrellus pipistrellus*) and **Brown Long-eared Bat** (*Plecotus auritus*)
- 2015-18179-EPS-MIT (granted in 2015) for the destruction of a resting place for Common Pipistrelle.
- 2018-34923-EPS-MIT (granted in 2018) for the damage and destruction of a resting place for Common Pipistrelle and Serotine.
- 2015-6791-EPS-MIT (granted in 2015) for the destruction of a resting place for Lesser Horseshoe Bat, Common Pipistrelle Bat and **Soprano Pipistrelle Bat** (*Pipistrellus pygmaeus*)

[7] Special Protection Areas (**SPA**) are protected areas for birds in the UK classified under the Conservation of Habitats and Species Regulations 2017 (as amended) in England.

[8] **Ramsar** Sites are wetlands of international importance that have been designated under the criteria of the Ramsar Convention on Wetlands for containing representative, rare or unique wetland types or for their importance in conserving biological diversity.

[9] Special Areas of Conservation (**SAC**) are protected areas for a range of species, including bats, in the UK and are designated under the Conservation of Habitats and Species Regulations 2017 (as amended) in England.

[10] Sites of Special Scientific Interest (**SSSI**) are the UK's very best wildlife and geological sites and cover a range of important wildlife habitats and species, including bats, and are notified and protected under the Wildlife and Countryside Act 1981 in England.

5.3. Data Search

5.3.1. The data search revealed no bat records associated with the building.

5.3.2. There were 18 roosts recorded within 1km of the site (nine of which relate to records over 20 years old). Two of the more recent roosts are were within 200m of the site. The following species are associated with these roosts:

Lesser Horseshoe Bat (*Rhinolophus hipposideros*)
Greater Horseshoe Bat (*Rhinolophus ferrumequinum*)
Natterer's Bat (*Myotis nattereri*)
Serotine Bat (*Eptesicus serotinus*)
Brown Long-eared Bat (*Plecotus auritus*)

Unconfirmed pipistrelle species (Pipistrellus sp)
Unconfirmed long-eared species[11] (Plecotus sp)
Unconfirmed bat species

5.3.3. **In addition** to the above species, there are flight records (eg not associated with a roost) for the following species within 1km of the site:

Noctule Bat (*Nyctalus noctula*)
Common Pipistrelle Bat (*Pipistrellus pipistrellus*)
Western Barbastelle Bat (*Barbastella barbastellus*)

Unconfirmed Myotis species (Myotis sp)[12]

2.2.3. DNA testing (through a university laboratory) is now used routinely on bat droppings to confirm species, but it is a relatively new method and many records relate to the times before such testing was widely available.

2.2.4. As a result, although sometimes it may have been possible to identify bat droppings to at least genus level (eg Pipistrellus or Plecotus), at other times it was not possible to state any more than the location is a bat roost, based on the presence of bat droppings, but the species remains unclear.

2.2.5. Roosts are, therefore, sometimes identified by the presence of droppings only, without the species being identified. Knowing the location of such roosts, however, even if the species is not known or uncertain, is still an important part of the assessment of a site.

2.2.6. Please note, if a species does not appear in the lists above that does not mean it is not in the area, it has simply not yet been recorded there.

[11] There are two species of long-eared bats in the UK and they cannot be separated based on droppings only so, where the roost is noted as a result of finding droppings, but the species cannot be confirmed (by, for instance, DNA testing of the droppings) then the roost is noted as being unconfirmed long-eared species.

[12] The Myotis genus comprise six species and they show considerable overlap in the characteristics of their echolocation calls and so can be difficult to separate based solely on a recording of those calls or droppings. Where that is the case the bat is noted as a Myotis sp but the species is unconfirmed.

6. Physical Survey Results

6.1. The building is a two storey brick and block built detached building on which the external vertical surfaces have been rendered and whitewashed from ground to eaves. There is one dormer window on the rear roof pitch and two on the front pitch.

6.2. Externally the roof comprises interlocking clay tiles which are tight fitting across most of the roof. There were a small number of places where small gaps existed but examination of these through binoculars showed them to either contain detritus, or to have moss/lichen encrustation on the tiles in front of the gap, both indicating that the gaps has not been used (as an animal crawling in and out with remove the material).

6.3. There are a small number of locations on the gable ends where, from the ground, there appears to be gaps associated with the tiles, but examination up close showed these to lead nowhere, as the upper tile met the lower tile a short distance in from the edge.

6.4. There were also a small number of place where there were gaps in the cement but examination of these shoed them to contain detritus and cobwebs, indicating they had not been used.

6.5. There are small areas of tile cladding above the windows on the dormers but they are tight fitting and offer no roosting opportunities

6.6. The barge boards are wooden and tightly fitting to the building offering no roosting opportunities.

6.7. Internally much of the roof void has already been converted to residential use. There are, in effect, no eaves voids as they have been boarded out as storage and there are two ridge voids, each more or less positioned above each of the dormer windows on the front elevation.

6.8. Both voids are small and the flight space in the void on the north-eastern pitch has two water tanks installed, reducing the flight space still further. The tiles are underlain with a bituminous felt and this is, itself, underlain with insulation on the void on the north-eastern pitch, presumably to prevent the water freezing.

6.9. No signs of bat use could be found in the internal spaces or on the external surfaces.

7. Discussion and Conclusion

7.1. No evidence was found, either internally or externally to indicate any use of any of the building by cavity or crevice dwelling bats. Based upon the survey work undertaken it is not believed bats were, *at the time of the survey*, making use of the building, as either a long-term established roost or as a temporary, transitory or feeding roost.

7.2. Given the lack of evidence of bat use the building is classified as having *Negligible Suitability* for bats and therefore no further survey work is required and no timing constraints are placed on when the works can take place.

7.3. As noted in Section One, in line with the NPPF, enhancements for biodiversity are required as part of the planning process therefore enhancements for bats and bees will be installed as part of the works.

7.4. Bats

7.4.1. The preferred option for bats is to install integrated bat boxes, as these are more likely to be the most effective, therefore line with the NPPF, one integrated bat box is to be installed in the location shown in Figure F, in Appendix B.

7.4.2. A number of designs, from different various suppliers, are available and two are shown in Figure E, in Appendix B.

7.4.3. The Habibat ones can be installed behind cladding and under render or integrated into a brick wall. The Schwegler[13] ones are designed to be installed behind render.

7.4.4. Other options are available in addition to the ones shown here, but it is recommended that a solution is obtained from Habibat, as they donate a portion of the costs to the Bat Conservation Trust, so bat conservation on a national level also benefits. A link to the website is given below:-

http://www.habibat.co.uk/integrated-bat-boxes

7.5. Bees

7.5.1. Two bee bricks/blocks are to be installed. Locations are not set out but bee bricks/houses should be positioned in a warm sunny spot, south facing, with no vegetation in front of the fascia. Ideally placed at least 1 metre from the ground with no upward limit.

2.2.7. Examples are shown in *Figure G, Appendix B* and they can be bought from a range of suppliers, including the Royal Society for the Protection of Birds, NHBS, Birdfood.co.uk, nestbox.co.uk and others.

[13] If the Schwegler option is followed two such tubes should be installed in each location, fastened together as indicated.

Appendix A: Legal Protection of Species in the UK

NB: This appendix serves as a brief summary of the relevant legislation and the species listed below are a sample taken from the schedules in the named Legislation. For a full listing, and full details of the protection afforded them, reference should be made to the relevant legislation.

1. European Protected Species

1.1. Annex IV(a) of the *Habitats Directive* lists a range of animals, referred to as European Protected Species afforded special protection due to their conservation status.

1.2. That protection is transcribed into domestic legislation as *The Conservation of Habitats and Species Regulations 2017*, as amended by *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, with **all species of British bat** listed on Schedule 2, as are the **dormouse**, **sand lizard**, **great crested newt**, **smooth snake**, **natterjack toad** and **otter**.

1.3. Under this legislation it is illegal to :-

1.3.1. Deliberately disturb a European Protected Species

1.3.2. Deliberately capture, injure or kill a European Protected Species

1.3.3. Damage or destroy a breeding site or resting place of a European Protected Species

1.3.4. Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead European Protected Species or any part thereof

1.4. Please Note:-

1.4.1. The concept of ***deliberate*** covers not only situations where a certain result is directly intended, but also situations where the person committing the offence knows the possible consequences of their action, but accepts them, even if not directly intended and continues with the action.

1.4.2. For the purposes of this legislation ***disturbance*** is defined as significantly affecting the local distribution or abundance of a European Protected Species, or impairing its ability to (i) survive, breed or reproduce, or to (ii) rear and nurture their young, or to (iii) hibernate or migrate.

1.4.3. Please note, the place a bat uses to breed or rest is often referred to as a ***roost***. That term does not exist in the legislation but, for the purposes of discussion, roost should be taken to represent a place a bat uses to breed or rest.

1.4.4. The offence of ***damage or destruction*** to a breeding site or resting place is considered to be an ***absolute offence***, there is no need to prove intent or that the act was deliberate.

1.4.5. The protection of a ***breeding or resting place*** applies whether it is being used or not

Appendix A: Legal Protection of Species in the UK (cont….)

2. *Wildlife & Countryside Act 1981 (as amended)*

2.1. The *Wildlife and Countryside Act 1981 (as amended)* [referred to as The Act hereafter) affords protection for European Protected Species, but only in relation to:-

2.1.1. Disturbance of a species at a site used for shelter or protection

2.1.2. Obstructing access to a place used for shelter or protection

2.1.3. Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead European Protected Species or any part thereof

3. *Wild Mammals Protection Act (1996),*

3.1. All **wild mammals** are covered by the *Wild Mammals Protection Act (1996)*, which prohibits cruel treatment, such as mutilation, kicking, beating, nailing, impaling, stabbing, burning, stoning, crushing, drowning, dragging or asphyxiation of all wild mammals.

4. *Natural Environment and Rural Communities (NERC) Act 2006*

4.1. The *Natural Environment and Rural Communities (NERC) Act 2006* sets out the responsibilities of Local Planning Authorities with regards conserving and enhancing biodiversity, which includes restoring or enhancing a population or the habitat associated with that species. Section 41 of the act lists species to which the provisions apply, which includes (but not limited to):-

Lesser horseshoe (*Rhinolophus hipposideros*)	Greater horseshoe(*R. ferrumequinum*)
Bechstein's bat (*Myotis bechsteinii*)	Noctule (*Nyctalus noctula*)
Soprano pipistrelle (*Pipistrellus. pygmaeus*)	Brown long-eared (*Plecotus auritus*)
Barbastelle (*Barbastella barbastellus*)	

5. *Mammal Society Red List*

5.1. In 2020 the *Mammal Society* produced a 'Red List' for UK mammals, identifying those most at risk, including (but not limited to):-

Greater Mouse-eared	*Myotis myotis*	Critically Endangered
Grey Long-eared bat	*Plecotus austriacus*	Endangered
Serotine	*Eptesicus serotinus*	Vulnerable
Barbastelle	*Barbastella barbastellus*	Vulnerable
Leisler's bat	*Nyctalus leisleri*	Near Threatened
Nathusius' pipistrelle	*Pipistrellus nathusii*	Near Threatened

Appendix B: Selected Figures and Photographs

The red arrows show the direction in which the photograph was taken

Figure A: *Selected photographs of the site*

Appendix B: Selected Figures and Photographs (Cont….)

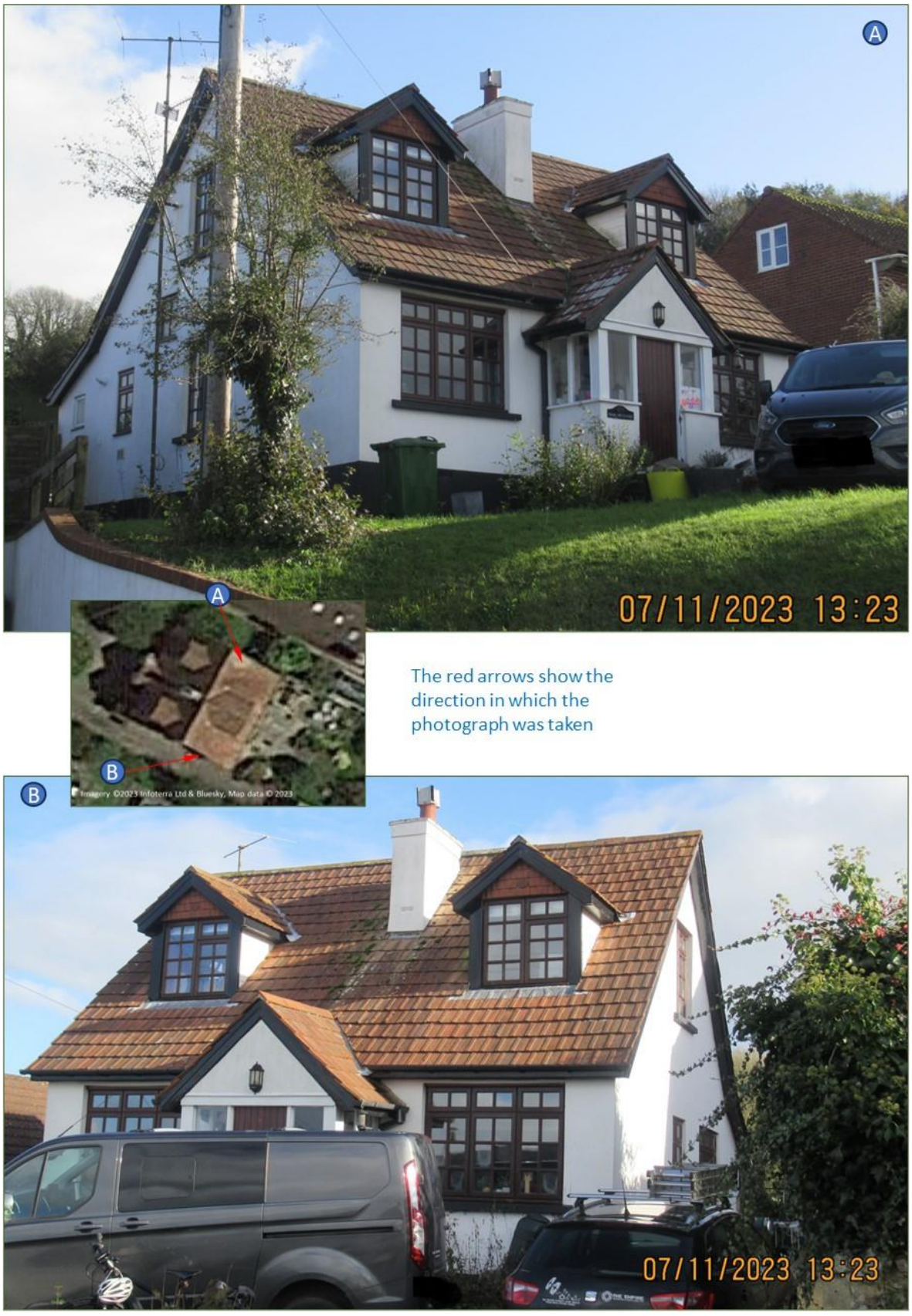


Figure B: *Selected photographs of the site*

Appendix B: Selected Figures and Photographs (Cont….)

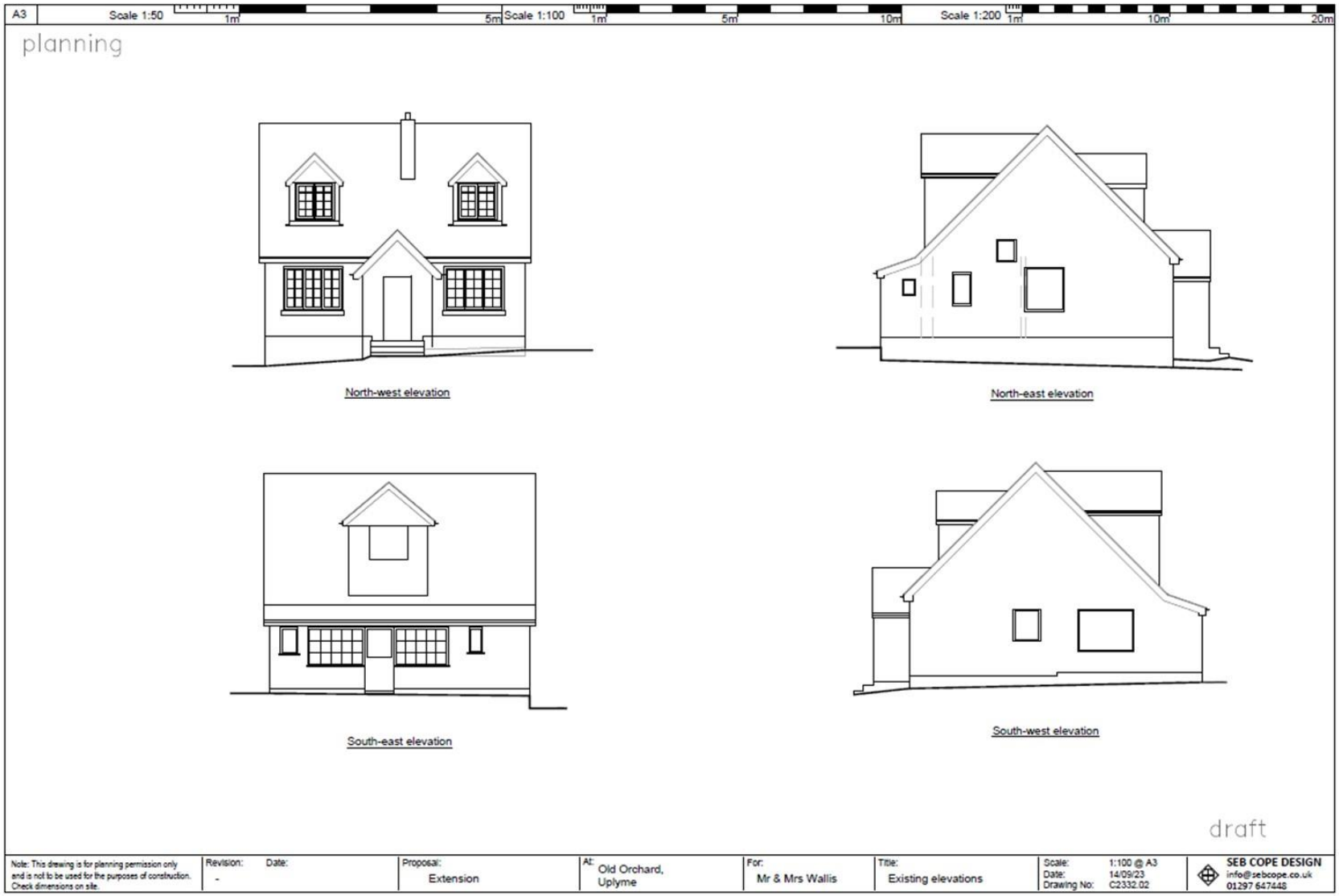


Figure C: *Existing Elevations*

Appendix B: Selected Figures and Photographs (Cont….)

Figure D: *Proposed Elevations*

Appendix B: Selected Figures and Photographs (Cont….)

Figure E: *Examples of integrated bat box to be installed as NPPF enhancement*

Appendix B: Selected Figures and Photographs (Cont….)

Figure F: *Location of the integrated bat box to be installed as NPPF enhancement*

Appendix B: Selected Figures and Photographs (Cont….)

National Trust Apex Insect House

National Trust Hexagon Insect House

Bee brick (manufactured by Green & Blue and available in multiple colours)

Bee block (manufactured by Green & Blue and available in multiple colours)

Figure G: *Examples of bee bricks and blocks to be installed as NPPF enhancements*

Appendix C: Nick Tomlinson : Short Biography

Nick's recent employment history includes one year working for the Bat Conservation Trust, seven years managing nature reserves for the Royal Society for the Protection of Birds, three years working for the Dorset Wildlife Trust, running an environmental education centre, three years working for the Somerset Wildlife Trust, running an urban conservation and community engagement project and over twenty years undertaking bat surveys to support planning applications and developments.

He has been involved with bat work in Dorset and Somerset for over 20 years and has held a scientific licence since 2001 and class licences (CL19 & CL20) since their introduction. He also holds a research project licence (current licence 2022-63263-SCI-SCI-2) since 2012, for research into bat distribution, populations and habitat use across Dorset.

Nick has held mitigation licences regarding work on both maternity colonies and day/night roosts **for Lesser Horseshoe Bat** (*Rhinolophus hipposideros*), **Whiskered Bat** (*Myotis mystacinus*), **Natterer's Bat** (*Myotis nattereri*), **Serotine Bat** (*Eptesicus serotinus*), **Common Pipistrelle Bat** (*Pipistrellus pipistrellus*), **Soprano Pipistrelle Bat** (*Pipistrellus pygmaeus*) & **Brown Long-eared** (*Plecotus auritus*).

In addition he has undertaken a large number of development projects, working through a supervised working methodology approach, rather than licensing, involving mitigation works for all the above species, including re-roofing and temporary roost exclusion, new roost creation (enhancement) and post-development surveys undertaken under method statements approved as part of the planning process within Dorset.

Nick also undertakes a number of research projects, focussed on the rarer bat species, including Bechstein's, Barbastelle and Grey Long-eared, and is licenced to undertake bat research using harp traps, mist nets and acoustic lures and is licenced to fur clip, ring and radio track bats.

He runs an ongoing training programme in Dorset, is a south west regional trainer for the Bat Conservation Trust and tutor on the Trust's Advanced Bat Survey Techniques course. He is also bat record verifier for Dorset and chair of the Dorset Bat Group.