PRELIMINARY ECOLOGICAL APPRAISAL & PRELIMINARY BAT ROOST ASSESSMENT OF:

MINCARLO
CARN THOMAS
ST MARY'S
ISLES OF SCILLY
TR21 0PT

Client: Mr & Mrs Lishman

Our reference: BS24-2019

Report date: 2nd December 2019

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REPORT ISSUED IN ELECTRONIC FORMAT ONLY

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Contents

Non-Technical Summary

- On the 2nd December 2019, the Isles of Scilly Wildlife Trust (IoSWT) conducted a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of Mincarlo, Carn Thomas, St Mary's, Isles of Scilly, TR21 0PT (BS24-2019), for which there is a proposal to replace the existing scantle roof tiles (both aspects) to the main building of the property, including the roofs and vertical fascias of the 3 west-facing dormer windows with modern slate.
- This report outlines the findings of the PEA and PRA assessment and provides advice based on the surveys' conclusions.
- During the PRA an external/internal inspection of the building was undertaken (where accessible).
- All areas could be accessed and evaluated for roost potential and for evidence of bats.
- No evidence of nesting birds was found.
- No vegetation of conservation interest was found in the immediate surrounding habitat.
- No mammal droppings were found during the inspection.
- The immediate habitat surrounding the proposed development suggests limited opportunity for bats to feed. However, commuting opportunities that link the wider countryside and more preferred habitat are present nearby.
- The proposed development, both externally and internally presented with minimal features that bats may use as a roost.
- Therefore, the characteristics of the building and the surrounding habitat suggest negligible roost potential for bats.
- **The recommendations of this PEA and PRA suggest that no further surveys or an EPS license are required.**
- **However, re-roofing of the property should be completed before the 1st May 2020 to minimise any potential disturbance to bats if they were to choose to use the building. If this is not feasible, then work should not be started until October 1st 2020 and completed on, or before May 1st 2021.**
- **As long as the timings and other recommendations given in this report on reasonable avoidance measures and enhancement options regarding bats are adhered to, there should be no further ecological constraints to this proposal.**

1.0 Introduction

1.1 Survey and reporting

This report details the results of a preliminary ecological appraisal and a preliminary bat roost assessment of Mincarlo, Carn Thomas, St Mary's, Isles of Scilly TR21 0PT. The survey, carried out on 2nd December 2019, was undertaken in order to inform proposals to replace the existing scantle roof tiles (both aspects) to the main building of the property, including the roofs and vertical fascias of the 3 west-facing dormer windows with modern slate.

1.2 The application site

The property is located along the north coastal strip of Hugh Town, St Mary's (National Grid Reference SV9062910720) on a small headland at the eastern end of Town Beach. The application site is comprised of a large, detached townhouse that has been extended extensively to the rear with an approximate west/east aspect (see Photo 1). The footprint of the proposed development is approximately 278m^2 and the sites total footprint approximately 1,916m^2 (see Figure 1).

1.3 Details of proposed works

It is proposed to replace the existing scantle roof tiles (both aspects) to the main building of the property, including the roofs and vertical fascias of the 3 west-facing dormer windows with modern slate.

Figure 1.

Photo 1.

2.0 Methodology

2.1 Preliminary Ecological Appraisal - Desk Study

A desk study data search was undertaken. This involved carrying out a review of the Local Records Centres (LRC) available records for bat species and publicly available datasets and citations of statutory designated sites of importance for nature conservation for sites within the zone of influence (ZOI) of the survey area (considered to be a maximum of 2km in this case). The desk study was also undertaken to identify habitats and features that are likely to be important for bats and assess their connectivity through the use of aerial photographs.

2.2 Preliminary Bat Roost Assessment

The Preliminary Bat Roost Assessment comprised a survey of the building for bats, signs of bats and features potentially suitable for use by roosting bats, and an assessment of the surrounding habitat in terms of its suitability for commuting and foraging bats.

The survey consisted of a ground based inspection and a detailed search of the interior and exterior of the building (from ground level), looking for bats and/or evidence of bats including droppings (on walls and windowsills and in roof and loft spaces), rub or scratch marks, staining at potential roosts and exit holes, live or dead bats and features, such as raised or missing tiles, potentially suitable for use by roosting bats. Binoculars, a ladder and a high-powered torch were used as required.

2.3 Classification of building

The building was classified according to its suitability for use by roosting bats. The classification was dependent on a number of factors including:

- Bats and/or signs of bats;
- External and internal features potentially suitable for use by roosting bats (e.g. raised or missing tiles, gaps behind fascia boards etc);
- Setting;
- Night time light levels;
- Disturbance levels;
- Proximity of suitable foraging habitat and commuting routes (e.g. ponds, streams, woodland, large gardens, hedgerows).

The categories used to classify buildings and the survey effort required to determine the presence or absence of bats (as per the Bat Conservation Trust's Bat Survey Guidelines[1], referred to by Natural England in their standing advice to planning officers) are described in Table 1 (see below).

2.4 Surveyor details

The survey was undertaken by Darren Mason BSc of the Isles of Scilly Wildlife Trust. Darren has undertaken professional Bat Licence Training to permit him to undertake professional surveys and is currently gathering sufficient 'working hours' to achieve a Natural England Class Level 2 licence.

Table 1 – Description of the categories used to classify a building's bat roost potential and the survey effort required to determine the likely presence or absence of bats

	Roost status	Description	Survey effort required to determine the likely presence or absence of bats
Bat Roost Potential	High	Numerous features potentially suitable for use by roosting bats, optimal or good quality bat foraging habitat nearby and good habitat connectivity. Alternatively, a building with fewer features potentially suitable for use by roosting bats and optimal foraging habitat nearby.	Three dusk emergence and/or pre-dawn re-entry surveys between May and September. Optimum period May – August. Two surveys should be undertaken during the optimal period and at least one survey should be a pre-dawn survey.
	Moderate	More than a few features potentially suitable for use by roosting bats, good foraging habitat nearby and limited habitat connectivity. Alternatively, a building with a few features potentially suitable for use by roosting bats but optimal foraging habitat nearby.	Two or three dusk emergence and/or pre-dawn re-entry surveys between May and September (but only if features will be affected by the proposals).
	Low	Only a few features potentially suitable for use by roosting bats but good bat foraging habitat nearby. Alternatively, a building with more than a few features potentially suitable for use by roosting bats but sub-optimal foraging habitat nearby and limited habitat connectivity.	One or two dusk emergence and/or pre-dawn re-entry surveys between May and September (but only if features will be affected by the proposals).
	Negligible	Very few features potentially suitable for use by roosting bats and / or in an area (such as a densely populated urban area) which has limited habitat connectivity and poor foraging habitat.	No further surveys required.

Table 1. Categorising and classifying a building's bat roost potential

1 Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust

3. Results

Preliminary Ecological Appraisal

3.1 Pre-existing information on bat species

The desk study showed that no species of bat had previously been recorded within the building. A data search of LRC records for bats revealed information on 6 species of bat recorded within the 2km ZOI of the site. The species conclusively identified were Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*) and Brown Long-eared Bat (*Plecotus* auritus) both UK Biodiversity Action Plan (BAP) priority species, the rare Nathusius Pipistrelle (*Pipistrellus nathusii*) and records for both Leisler's Bat (*Nyctalus leisleri*) and Whiskered Bat (*Myotis mystacinus*). Several bat roosts are known to exist within the 2km of the proposed development, with 2 known roosts within 500m of the property.

3.2 Statutory and non-statutory sites

In addition, the desk study revealed the presence of the following statutory designated sites within the 2Km ZOI of the site:

i.) **Peninnis Head SSSI –** Lying 735m due south of the proposed development is Peninnis Head SSSI. The site designated primarily for its maritime heathland, maritime grassland and scrub habitats together with good populations of a number of rare plant and lichen species, in addition to its significant quaternary geomorphology.

ii.) **Lower Moors SSSI –** Situated 406m due east-south-east lies Lower Moors SSSI. A topogenous mire that has a range of wetland habitats supporting a diverse range of wetland wildflower species, including the Nationally Scarce Tubular Water-dropwort (*Oenanthe fistulosa*). The site also holds locally important populations of Royal Fern (*Osmunda reglis*) and Southern Marsh Orchid (*Dactylhoriza praetermissa*) and is particularly important feeding for passage and wintering birds including Corncrake (*Crex crex*) and Spotted Crake (*Porzana porzana*).

iii.) **Higher Moors & Porth Hellick Pool SSSI –** 1.4km east of the proposed development is Higher Moors SSSI. A topogenous mire designated for several rare and notable plant species) including; Bog pimpernel (*Anagallis tenella*), Star Sedge (*Carex echinata*) and Marsh St John's-wort (*Hypericum elodes*).

iv.) **Porthloo SSSI –** Situated 717m north-east of the proposed development lies Porthloo SSSI designated for its geology, particularly for its Quaternary sediments in the cliffs that show changes in the climates and environments of the Quaternary period in Scilly.

3.3 Habitats surrounding the application site

Mincarlo falls within the Built-Up Areas Boundaries[2] (2011) for England and Wales published by the Office for National Statistics (Geography). Mincarlo sits relatively centrally within Hugh Town but along the northern coastal edge of the Built-Up Areas Boundary. The development has no street lighting outside, the nearest being 85m south-west on Church Road, with a 2nd 135m to the south-east on Telegraph Road. The nearest potential foraging feature to the proposed development lies 30m due north-east of the proposed development consisting of a small Dutch Elm copse (*Ulmus x hollandica*) covering the eastern half of the small headland which Mincarlo occupies. The first mature garden with mixed shrubs and lawn lies 100m to the south-east and falls within a 'dark corridor' between the two streetlights mentioned above. This garden and dark corridor links Mincarlo to the Old School site at Carn Thomas, the allotments below Pilot's Retreat which links to the wetland SSSI of Lower Moors and the wider countryside to the north and east. Immediately due west for 400m and 233m east of the development are both Town and Porthmellon beaches with their associated strandlines, the latter linking the wider countryside that is dominated by small flower-farming fields bounded by mature hedgerows, interspersed with cattle-grazed pasture such as Well Field and Glandore Field to the north-east. These contiguous fields link up to the wetland SSSI of Higher Moors. This mosaic of fields and pasture is also contiguous beyond the Carn Thomas site heading due south, before reaching the open headland of Penninis Head SSSI an area dominated by dwarf shrub, scrub and coastal grassland.

In summary, the immediate habitat surrounding the complex is limited in terms of feeding opportunities, however the dark corridor to the south east of the complex and the strandlines of both Town and Porthmellon beaches to the west and east respectively may provide suitable feeding and commuting routes for bats to reach more favourable feeding habitat (more information given below). This dark corridor may be an important route for bats to utilise as it has been shown that street lighting can negatively impact upon a bats commuting and foraging routes[3]. In contrast, it has been shown that species such as Common Pipistrelle and Leisler's Bat[4] will feed around street-lighting, to take advantage of the insectivorous prey that congregates around them. However, this has been shown to be dependent on

the light emitting from the lamps, with orange sodium light (found here in this instance) having the greatest negative impact on feeding opportunities[5,6].

Though Soprano Pipistrelle have been shown to utilise more built up areas, compared to Common Pipistrelle[7] most species of bat require 'edge' habitat like hedgerows to both feed from and commute to other feeding areas[8,9,10]. This type of habitat however, is limited, particularly to the west where the landscape beyond the confines of Hugh Town is very open, which most species of bat prefer not to utilise[11], the exception being Leisler's bats which is known to commute at altitude and forage in more open areas (due to their wing shape and loading)[4]. Likewise, Whiskered bat has been shown to favour more open areas of semi-natural grassland and pasture with scattered hedgerows, or small woodland blocks[6,12,13] in which to feed. Habitat such as the Garrison to the west, the golf course to the north-east and Penninis Head to the south-east is typical examples of such habitat which both species could exploit as they fall within the typical core sustenance zones[6, 12].

In contrast, edge habitat is almost continuous to the east and north-east for at least two kilometres, providing access to a wider variety of habitats for which Common Pipistrelle are known to take advantage of[9], including the strand-line along the beaches[14] to the west and east. The former commuting routes are also important for both Soprano and Nathusius Pipistrelle as they provide feeding corridors to their preferred habitat of open water and watercourses[8,9,10] habitats such as those found at both Lower and Higher Moors SSSIs and Holy Vale. The location of Mincarlo also falls within the core sustenance zones of all three species being 1.7km, 1.5km to 3km respectively[15].

Brown Long-eared bat have been shown to prefer to feed in open canopy deciduous woodland typically located close to their roosts, which would also have larger tracts of woodland available to feed no greater than .5km away[16], making the Garrison to the west and the former school site at Carn Thomas potential sites to feed. Both sites fall within this species core sustenance zone of 1.1km[17], however the lack of trees in the immediate area of the complex may limit the sites use as a roost.

3.4 Habitats within the application site

Mincarlo is a detached property bounded to the south and east by granite stone walls. To the north the garden is bounded by the Elm copse and a large granite rock outcrop. To the west the garden is open and overlooks the harbour and beach. Within the footprint of Mincarlo lies a smaller second property, a paved

area immediately out front and informal gardens to the north. The latter comprise of a mix of open coastal grassland species including; Red Fescue (*Festuca rubra*), Cock's-foot (*Dactylis glomerata*), Common Cat's-ear (*Hypochaeris radicata*), Common Fumitory (*Fumaria officinalis*), Yarrow (*Achillea millefolium*) and Bird's-foot Trefoil (*Lotus corniculatus*). Scattered throughout are sparse and mature bushes of Bramble (*Rubus fruticosus*), Elm (*Ulmus sp.*), European Gorse (*Ulex europea*) and Tree Mallow (*Lavatera arborea*). Also scattered throughout are ornamental species including; Pittosporum (*Pittosporum tenufolium*), New Zealand Flax (*Phormium tenax*), Aeoniums (*Aeonium sp.*), African lily (*Agapanthus africanus*), Veronica sp. (*Hebe sp.*) and Hottentot Fig (*Carpobrotus edulis*). The cairns support a wealth of both saxicolous and terricolous species.

In summary, the habitat within the footprint of Mincarlo provides a limited number of species which would attract a wide variety of invertebrates which bats can feed on. However, the Dutch Elm copse that forms the north-east boundary of the garden could provide some suitable foraging habitat.

Preliminary Roost Assessment

3.5 External

Mincarlo is a detached 2-storey house built at the turn of the last century, which has had extensive development to the rear of the main building that includes both a two-storey and single storey extension. The main house is built from 'worked' granite blocks, rendered with cement on the whole of the north and part of the east elevation. The modern extension at the rear is block built and smooth-rendered. The roof of the main building is of a 'half-hipped' type construction with an east/west aspect and a pitch of approximately 30^0. The rear extension is part 'half-hipped' in construction and part flat-roofed. The hipped sections have a north/south aspect and a pitch of approximately 30^0. The roof of the single-storey extension is built in a 'skillion' style with a southern aspect and a pitch of 10^0. The hipped roof sections of the extensions at the rear have a modern slate covering and fibreglass (flat roofed section), whilst the remaining house (the proposed development) still maintains its original 'scantle' tiles. The whole of the western aspect has had a skim of cement covering all the tiles, whilst the eastern aspect has had numerous repairs, particularly in the north east corner. All sloping roofs are capped with glazed concrete tiles. The western aspect of the main house has three dormer windows with roofs with a north/south aspect each with a pitch of approximately 30^0. These are clad on either side with vertical 'scantle' tiles and tied into the

main roof with lead flashing. There is also a dormer window on the eastern aspect with a flat roof construction of fibreglass and clad in single fibre-cement board. The rear extension is tied into the main building via valleys of lead flashing. Wooden fascia and soffit boards clad the eaves of the west and east aspects. Wooden fascia is present on the northern aspect, with vertical tiles replacing the fascia on the south-east aspect only. The western aspect has a large wooden porch with a flat fibreglass roof. There are also two floor - roof bay windows, with flat fibreglass roofs which are wooden clad between the ground and first floor windows. The windows are a mix of single and double-glazed, with both wooden and uPVC frames.

The proposed development has negligible features potentially suitable for roosting bats, primarily due to a skim of cement over the whole of the western aspect roof, the well constructed flat roofs above the porch bay windows and rear dormer of the first floor. The vertical tiling of the dormer windows are all well mortared, whilst the wooden fascia and soffits are tightly bound against the exterior of the building. Only one potential feature was identified at the south-eastern eaves where a gap was present between the soffit and fascia. However, the presence of the electrical junction box and wiring would likely prevent a clear pathway to and from this feature (see photo 2).

Photo 2.

3.6 Internal

The internal roof space of Mincarlo is of a queen post and collar beam type construction with exposed purlins and rafters. The roof space above the collar beam section along the full length of both aspects is filled with loft insulation, limiting the loft space to the 'hipped' sections only. Access along the full length of the eastern aspect was possible, but the loft space on the western aspect was limited to the south-west and north-west corners only. Throughout the space the backs of the 'scantle' tiles were revealed along with the battens the tiles sat upon. No roof felt was present along the full length of the eastern aspect, however some areas were covered with hardboard. Above the bay windows on the western aspect some breathable membrane was present (see photo 3). In places gaps between the tiles on the eastern aspect had been filled with expandable foam (see photo 4). Throughout the survey (with lights off) only one area of natural light was seen, this being on the western aspect around the area of the right bay window flat roof. During the survey no mammal droppings were found in any of the loft sections, including the floor, the cold water tank, emersion heater and the tops of storage items (all found within the eastern aspect). Dust and cobwebs were numerous. No mortise joints were present, but 'tied-in' beams were searched for claw marks, urine and grease stains but none were recorded. The gable end rafters also sat tightly against the brickwork below (see photo 3).

Photo 3.

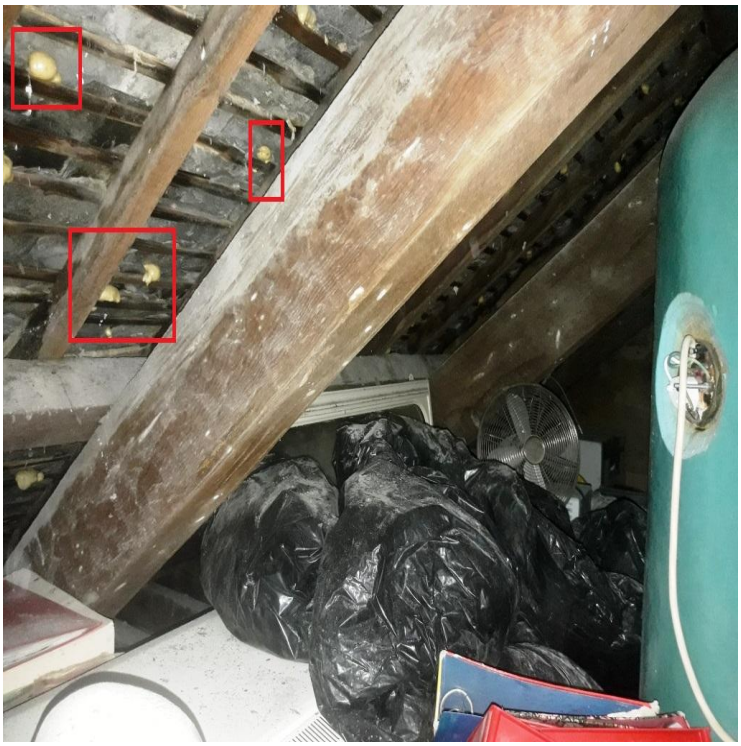

Photo 4

In summary, it has been shown that all 3 pipistrelle species of bat along with Whiskered and Leisler's bat typically roost within buildings, utilising a very wide variety of features[6,13 & 18] including, crevices, cracks, holes etc either as individuals up to several hundred at a time. Pipistrelle species have also been shown to hibernate in mass hibernacula in urban settings utilising both the interiors and exteriors of buildings of varying size and structure[19]. However, the lack of potential roosting features that would permit bats to access the building and the limited foraging habitat and lack of vegetation cover (trees) within 10m of the building decrease the likelihood of bats utilising the building.

In contrast, Brown Long-eared bats prefer to roost in roof voids that provide flight space within their chosen roost, or roofs that are divided into several smaller compartments. Brown Long-eared bats also typically roost between the joints where the rafters meet the ridge board, or along the ridge board itself[16]. The roof construction type and the lack of a clear flight-path into the loft (and within) limit the buildings potential to host this species. Furthermore, Brown Long-eared bats also show high roost fidelity where it would be expected to see concentrations of droppings, which was not found during the roost assessment.

4. Evaluation of Results

4.1 Protected sites

The proposed development falls into the SSSI Impact Risk Zones of Lower Moors, Higher Moors & Porth Hellick Pool and Penninis Head SSSIs. Impact zones are used in the assessment of planning applications for likely impacts on SSSI's, Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar Sites (England). However, the impact in this zone is for large-scale residential developments and therefore the development is not likely to impact on the surrounding SSSIs.

4.2. Ecological features of importance

To identify which ecological features are important and which could potentially be affected by the proposed project, an evaluation of their importance for example; in a geographical context, degree of scarcity or level of protected status needs to be undertaken[20]. The table below outlines those features identified as important, the nature conservation legislation relevant to those features and an assessment of the level of impact from the proposed development on those features.

Ecological Feature	Relevant Legislation	Evaluation (of importance)	Mitigation Hierarchy	Impact Level
Habitats:				
Building (roost sites)	CHSR, W&CA	Negligible	A	Low
	Impacts: **Demolition:** – None predicted as long as Reasonable Avoidance Measures (RAM) are followed (see section 5) **Construction:** – None. **Operational impact:** - None predicted. Please note a summary of criminal offences with respect to bats and their roosts. This can be found at: http://www.bats.org.uk/pages/bats_and_the_law.html			
Species:				
Bats	CHSR, W&CA	International	A, E	Low
	Impacts: **Demolition –** None predicted as long as Reasonable Avoidance Measures (RAM) are followed (see section 5) **Construction/post-construction –** None. Positive impact may result through enhancement by increased roost availability[21] **Operational impact:** - None predicted, however please note a summary of criminal offences with respect to bats and their roosts. This can be found at: http://www.bats.org.uk/pages/bats_and_the_law.html			
Key to Legislation and Mitigation Hierarchy				
CHSR – Conservation of Habitats and Species Regulations 2017[22]- http://www.legislation.gov.uk/uksi/2017/1012/made W&CA – Wildlife & Countryside Act 1981 (as amended)[23] - http://www.legislation.gov.uk/ukpga/1981/69/contents **A** – Avoid, **M** – Mitigate, **C** – Compensate, **E** - Enhancement				

Table 1.

5. Recommendations and Mitigation (bats)

The recommendations in this section are provided as information only and are the professional opinions of the author. Note; if building works are delayed for more than one year, then re-assessment may be required.

5.1 Further survey requirements

In the professional opinion of the author **no further surveys are required**. BCT guidance suggests that for buildings with negligible roost potential no further surveys are required[1]. The survey carried out to date follows this guidance, is proportionate to the scale of the development and the information provided is believed to be sufficient to inform the planning decision.

5.2 EPS Licence requirement

For any development that is likely to commit an offence (or offences) in respect to a European Protected Species (EPS) i.e. bat, or their habitat, a licence will be required (see Appendix A for details). In this instance based on sufficient survey work **no EPS licence is required**. If in the unlikely event a bat were found during the demolition phase of the project, Reasonable Avoidance Measures (RAM) must be followed and will determine any further action, such as licensing.

5.3 Mitigation – Further Action

As there is a very low risk that bats may roost within the building, prior to demolition, precautions should be taken to reduce the probability of committing an offence. If affected RAM should include:

Avoidance (A) - Bats

i. Ensure all workers on site (including sub-contractors) are made familiar with bat legislation and agree to work in accordance with and fully follow best practice measures
ii. All re-roofing work should be completed by May 1st 2020 to minimise the impacts on bats which may choose to use the site. If this timescale is not feasible then work should not commence until 1st October 2020 and completed before May 1st the following year, again to avoid the main period when bats are active and where work may have adverse effects on them.
iii. During demolition all workers should carry out careful checks of any cracks/crevices and cavities in or on the building prior to demolition. Signs of usage can include; bat droppings, discoloration or polishing of access points where bats rub against them, urine stains and a lack of cobwebs, particularly if other crevices around them have plenty.

iv. Individual bats may be found in/under; cladding, between timber boards, between corrugated sheeting, in soffit boxes, behind lead flashing and sometimes just clinging to timber beams around joins as well as others areas. If any of these are removed, please do so carefully, lifting outwardly, and checking for bats continually. If in doubt, consult a licensed bat worker.

v. In the unlikely event that a bat is found please see below:

1. At no point should a worker handle a bat. Untrained handling may cause undue stress and injury to the bat, and if bitten may expose the worker to rabies-related European Bat Lyssavirus
2. Where possible replace any covering without damaging the bat, then halt works and contact **Natural England** (Tel: 0845 601 4523), or the **Bat Conservation Trust Helpline (**0845 1300 228), or **IoSWT** (01720 422153) for advice.
3. Any bats that go to ground should be covered with a box and left alone until a licensed bat worker arrives to assess the condition of the bat
4. If the bat attempts to fly at any point allow it to do so. Preventing natural behavior will cause unnecessary stress and may cause injury. Attempt to see where bat goes. If the bat returns to the building, halt works and report the escaped bat to the local bat worker

vi. Try to minimise any dust generated from demolition works from entering off-site buildings and gardens

Enhancement (E) – Bats

The Isles of Scilly have the most westerly population of Common Pipistrelle (*Pipistrellus pipistrellus*) bats in the United Kingdom. The islands also hold small populations of Soprano Pipistrelle (*Pipistrellus pygmaeus*) and Brown Long-eared Bat (*Plecotus* auritus) both UK Biodiversity Action Plan (BAP) priority species. Recent species identified also include long-distance migrants including Nathusius Pipistrelle (*Pipistrellus nathusii*) and Leisler's bat (*Nyctalus leisleri*). Any loss of roosting, commuting or foraging sites could have a detrimental effect on these species distribution as a whole and cause a net loss in biodiversity on the islands.

Each local planning authority in England and Wales has a statutory obligation under Part 3 Section 40 of the Natural Environment & Rural Communities Act 2006[24] (NERC 2006) to have due regard for biodiversity when carrying out their functions and must contribute to achieving sustainable development by protecting and enhancing our natural environment under Section 2 of the National Planning Policy Framework 2019

(NPPF 2019)[25]. Under Section 15 paragraph 170(d) of the NPPF 2019 it states that '*all planning policies and decisions should contribute to and enhance the natural and local environment by providing net gains in biodiversity.*' Therefore, this planning application should be permitted with the following suggestions being undertaken:

i. All new roofing felt laid to be traditional Type 2 bitumen felt, as modern breathable membranes have been shown to kill bats[26].
ii. Select 10 tiles on each roof aspect (if tiles are to be used) and raise their leading edge by 25mm (using mortar) to create a wedge shaped crevice that provides access to the underlying felt, to provide potential roost space
iii. Alternatively, Erect three free-standing bat boxes developed for crevice-dwelling species (see figure 2 for examples and Appendix B for supplier details) one on the northern and southern gables ends and the third on the western aspect of the main building. These should be erected as high as possible (c 4m above the ground) and have clear access to the wall below to permit entrance into the boxes by any prospecting bat.

Figure 2. free-standing bat box examples

https://www.nhbs.com/browse/search?q=bat%20boxes&hPP=30&idx=titles&p=0&is_v=1&qtview=158636

https://www.nhbs.com/browse/search?q=bat+boxes&qtview=176916

6. Summary

It is believed that Mincarlo offers negligible roost potential and limited favourable foraging habitat immediately surrounding the development. In the professional opinion of the author **no further surveys are required and no EPS licence is required.**

However, there is always the possibility that bats may choose to use this building. Therefore, to minimise the risk of impacting on bats when they are most likely to use the building **re-roofing should only take place between 1st October and the 1st May in any year.** So long as these timings and other recommendations given in this report on reasonable avoidance measures and enhancement options regarding bats are adhered to, there should be no further ecological constraints to this proposal.

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APPENDIX A – LEGISLATION AND LICENSING

a) Legislation

All species of bats receive special protection under UK law making it a criminal offence under Schedule 5 section 9 (4) (b) and (c) of the Wildlife and Countryside Act 1981 (as amended) to *"intentionally or recklessly disturb a bat at a roost"* or *"intentionally or recklessly obstruct access to a roost" and under* Regulations 43 (1) and (2) of the Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations) to *"deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young or, affect the local distribution or abundance of the species;* or to "*damage or destroy a roost"* without first having obtained the relevant licence for derogation from The Habitat Regulations from the Statutory Nature Conservation Organisation (the SNCO – Natural England in England).

The word 'roost' is not used in the legislation, but is used here for simplicity. The actual wording in law is 'any structure or place which any wild animal...uses for shelter or protection' or 'breeding site or resting place'. Because bats tend to re-use the same roosts after periods of vacancy, legal opinion is that the roost is protected whether or not the bats are present at the time.

Penalties on conviction of a bat-related crime - the maximum fine is £5,000 per incident or per bat, up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

b) Licensing

In order to obtain such a licence (as set out above) the SNCO must apply the requirements of the Regulations and, in particular, the three tests set out in sub-paragraphs 55(2)(e), (9)(a) and (9)(b). These are as follows:

(1) Regulation 55 (2)(e) states that a licence can be granted for the purposes of "*preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*".

(2) Regulation 55 (9)(a) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "*that there is no satisfactory alternative*".

(3) Regulation 55 (9)(b) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "*that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*"

The licence would permit an otherwise unlawful activity to take place, and it requires of the licencee measures to ensure that negative impacts are prevented, reduced or offset, and that the favourable conservation status of the bats is maintained. **Once a licence is granted, failure to comply with its contents, including its attached Method Statement is a Criminal Offence with fines of a maximum of £5,000 per infringement.** A licensed bat consultant must be appointed to assist in the preparation and the delivery of the mitigation proposals that ensure the species protection requirements (Favourable Conservation Status 'FCS' test) can be met.

Additional information on the tests is available from the Natural England website.
http://publications.naturalengland.org.uk/publication/4727870517673984?category=12002

The ecologist is responsible for providing evidence to meet Test 3. The evidence to satisfy tests 2 and 3 is submitted on a part of the license application called the Reasoned Statement. The Reasoned Statement must be filled in by the client or their agent. Applicants often approach planning consultants, architects or similar for advice regarding completion of the Reasoned Statement.

- **Permissions**
  The development must have **full permission** before the licence application will be registered including any ecology-related conditions or reserved matters that can be discharged before the date of application.

- **Further bat surveys**
  If a full active bat season is going to pass between the granting of planning permission and the licence application period, Natural England will require **update survey(s)** (March-Aug) prior to application submission. The number of surveys required will vary by site depending on the size and complexity of the site as well as the species and roost types present.

- **Land ownership**

If mitigation, compensation or monitoring is anticipated to be on land not owned by the applicant, then written consent from the landowner will be required by Natural England. Responsibility for management and maintenance must also be agreed.

- **Commitments**

Applications should not give any commitments to undertake licensed works (or actions relating to the licence) that cannot be delivered.

- **Multi-phased projects**

If a plan is phased, Natural England will require a Master Plan with all mitigation and timetables included on it.

c) Licence timescales:

- **Licensing decision**

The licence application pack can take anywhere from **2 to 3 weeks** to produce and Natural England allow themselves **30 working days** from the date of receipt to respond to applications, a window which can be extended if further information is requested by themselves. It is important that clients, developers, contractors, agents, etc. keep this in mind when designing work timetables. Occasionally, further information will be requested by NE, which can result in additional delays; therefore application as soon as possible is advised.

- **Timing of works**

In most cases, the works most likely to affect bats (bat exclusion work, soft strip, re-roofing, ecologist-advised timber treatment, etc.) will normally be timed to avoid the hibernation and maternity periods. Thus, these works tend to be timed for either the **September-October period** or the **March-April period**. This means licence application is normally completed 3 months prior to these periods, and cannot be submitted any earlier.

- **Other Timing**

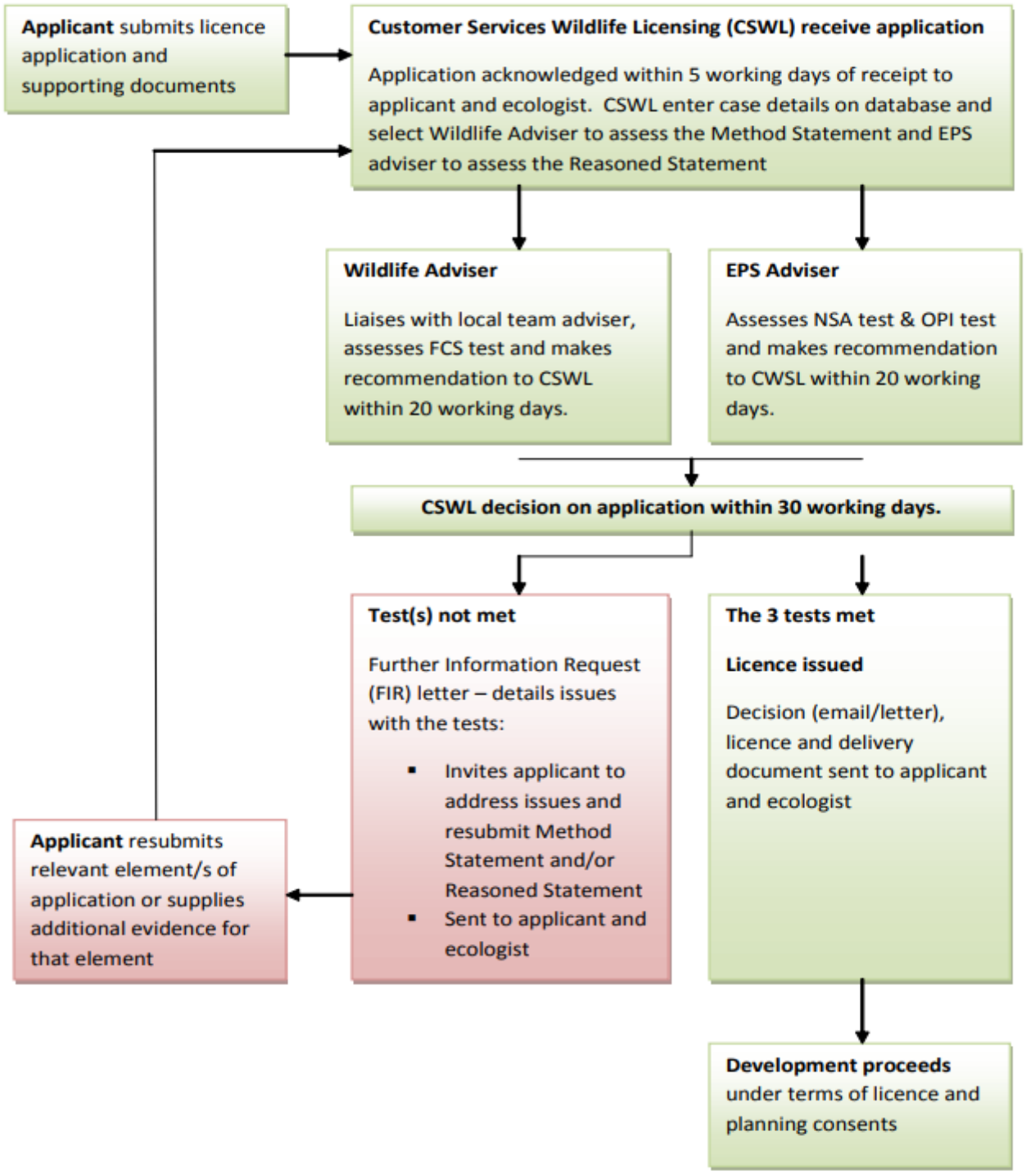
All timescales are weather-dependent (e.g. 5 days post-exclusion period extended due to inclement weather) and also may be impacted by other aspects of the project not related to ecology. In some situations license periods can be extended, but this involves more work and is not guaranteed as they must ensure that Test 3 is still met.

d) Scale of work involved:

- **Mitigation** Production and submission of the license application pack as well as the completion of the licensed works themselves are time intensive and involve inspections, exclusions, site induction and other works requiring onsite supervision such as bat roost creation, soft strip and other necessary checks under the terms of the license. Costs for materials and equipment including bat boxes, exclusion materials, lifts/scaffolding to carry out soft strips, roost construction materials, etc. needs to be considered. Costs can vary considerably by project, but the applicant should ensure provision for all aspects of the licensed works is well-budgeted.

- **Monitoring** Most mitigation schemes require some sort of post-development monitoring, the type and extent of which would be confirmed in the license method statement. A contract with the ecologist for all survey, mitigation and post-development monitoring surveys needs to be agreed for this at the application stage.

EPS Process



EPS application procedure flowchart (updated December 2011). Taken from WML-G12-EPS Mitigation Licensing – How to get a licence Version December 2013

APPENDIX B – SUPPLIERS

1. Natural History Book Service
   1-6 The Stables
   Ford Road
   Totnes
   Devon, TQ9 5LE
   Tel: 01803 865913
   Email: customer.services@nhbs.com
   Website: https://www.nhbs.com/

2. Habibat
   Tel: 01642 724626
   Email: http://www.habibat.co.uk/contact
   Website: www.habibat.co.uk

3. Dreadnought Tiles
   Dreadnought Works
   Brierley Hilly
   West Midlands, DY5 4TH
   Tel: 01384 77405
   Email: sales@dreadnought-tiles.co.uk
   Website: www.dreadnought-tiles.co.uk

4. Wildlife & Countryside Services
   Covert Cottage
   Pentre Lane
   Rhuddlan
   North Wales, LL18 6LA
   Tel: 0333 9000927
   Email: support@wildlifeservices.co.uk
   Website: www.wildlifeservices.co.uk

5. Wildcare
   Eastgate House
   Moreton Road
   Longborough
   Gloucestershire, GL56 0QJ
   Tel: 01451 833181
   Email: sales@wildcare.co.uk
   Website: www.wildcare.co.uk