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PRELIMINARY BAT ROOST ASSESSMENT OF:

JEDI
McFarlands Down
St Mary's
Isles of Scilly
TR21 0NS

Client: Mr Randolph Hessing

Our reference: BS6-2018

Report date: 24th August 2018

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Report peer reviewed: Darren MasonDarren Mason

Report signed off: Sarah Mason 04.09.18

REPORT ISSUED IN ELECTRONIC FORMAT ONLY

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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 Jedi, McFarlands Down, St Mary's, Isles of Scilly, TR21 0NS. The survey carried out on the 24th August 2018, was undertaken in order to inform proposals for the installation of one rooflight to the front facing roof slope to provide light source for the upstairs corridor and means of fire escape.

1.2 The application site

The house is located on McFarlands Down (National Grid Reference SV9128212246, Figure 1.). The application site comprises of a semi-detached two storey house. The total area of the application site is approximately 711m^2 (red area, Figure 1).

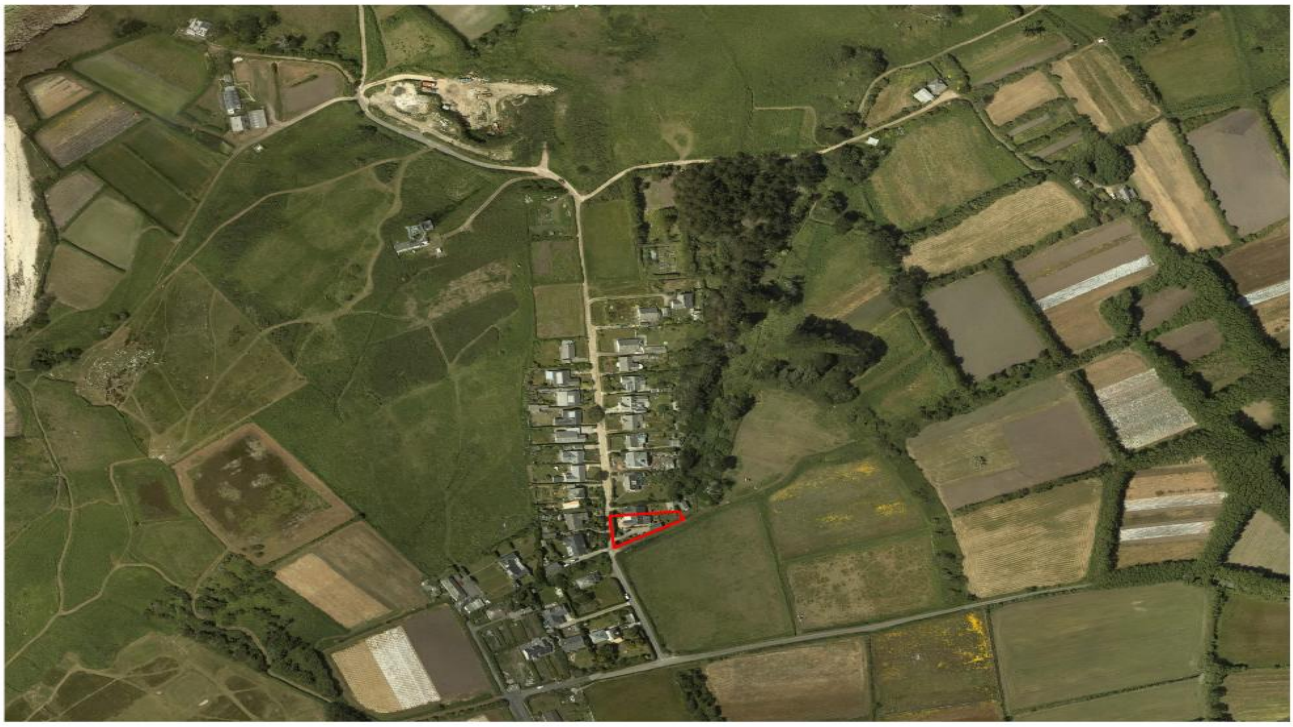

Figure 1. Location of proposed development

1.3 Details of proposed works

For the installation of one rooflight to the west facing roof slope to provide light source for the upstairs corridor and means of fire escape (see photo 1 for location).

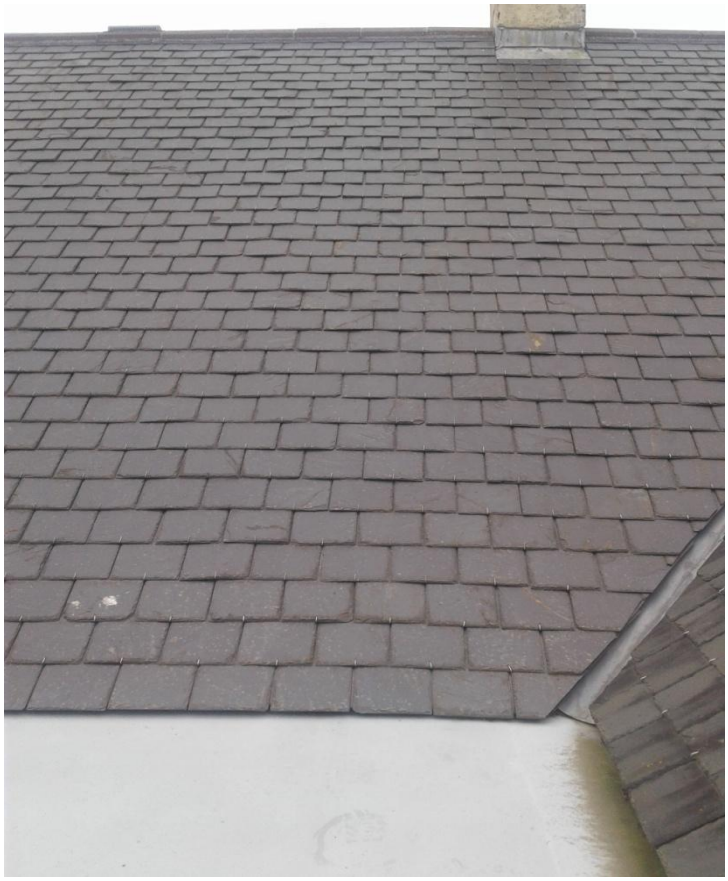

Photo. 1 West facing roof and site of the rooflight window.

2.0 Methodology

2.1 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, a search of the loft space and exterior of the buildings (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.

2.2 Classification of building

The building was classified according 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.

2.3 Surveyor details

The survey was undertaken by Darren Hart BSc of the Isles of Scilly Wildlife Trust. Darren has undertaken professional Bat Licence Training to permit him to undertake professional surveys. He is currently gathering sufficient 'working hours' to achieve a Natural England Class Level 1 licence.

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

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.

3.0 Results

3.1 Habitats surrounding the application site

Jedi is situated towards the northern tip of St Mary's and is set within a small linear development of detached dwellings at McFarlands Down. All the houses within the development are bounded by hedgerows, some with mature trees. The land immediately to the west is comprised of a very large, open field of semi-natural grassland, which backs onto open, conservation-grazed coastal headlands, which also extend to the south-west. Immediately to the north lies the coastline of St Mary's, consisting of relatively rocky beaches and sparsely vegetated very low-lying cliffs. Immediately to the east and backing onto the rear garden is a small shelterbelt consisting primarily of Monterey Pine (*Pinus radiata*), which links into the surrounding farmland. Here and continuing further south and east the habitat is well connected with many small fields bounded by hedgerows of Pittosporum (*Pittosporum tenuifolium*), small copses of English Elm (*Ulmus* procera), or small country lanes bounded by mature hedgerows. This habitat connectivity to the south and east is continuous for at least 2km, reaching as far as both wetland SSSIs.

3.2 Habitats within the application site

Jedi is bounded by well maintained hedgerows of mainly Escallonia *(Escallonia macranatha)* with mature shrubs and a small lawn at the front. The rear of the garden has a large lawn and the Escallonia *(Escallonia macranatha)* continues the length of the garden on the southern boundary and backs onto the previously mentioned pine belt.

3.3 Preliminary Roost Assessment

3.3.1 External

Jedi is a modern two storey semi-detached house with a cross gabled pitched roof. The roofs are clad with slate tiles and capped with clay ridge tiles and sealed with a plastic liner. The pitch of the taller part of the roof is approximately 30^0 (site for the new rooflight). There is also a fibre glass flat roofed section of the house on the western side of the property. The shorter pitched part of the roof contains the loft space. The house is a modern build with the lower half rendered. The gable end of the house is finished with wooden cladding as well as wooden soffit, fascia boards and box end.

The development site has features potentially suitable for roosting bats, including:

- A raised roof tile within the proposed development site (see photo 2 & 2b).
- A vent within the tiled roof (see photo 3).

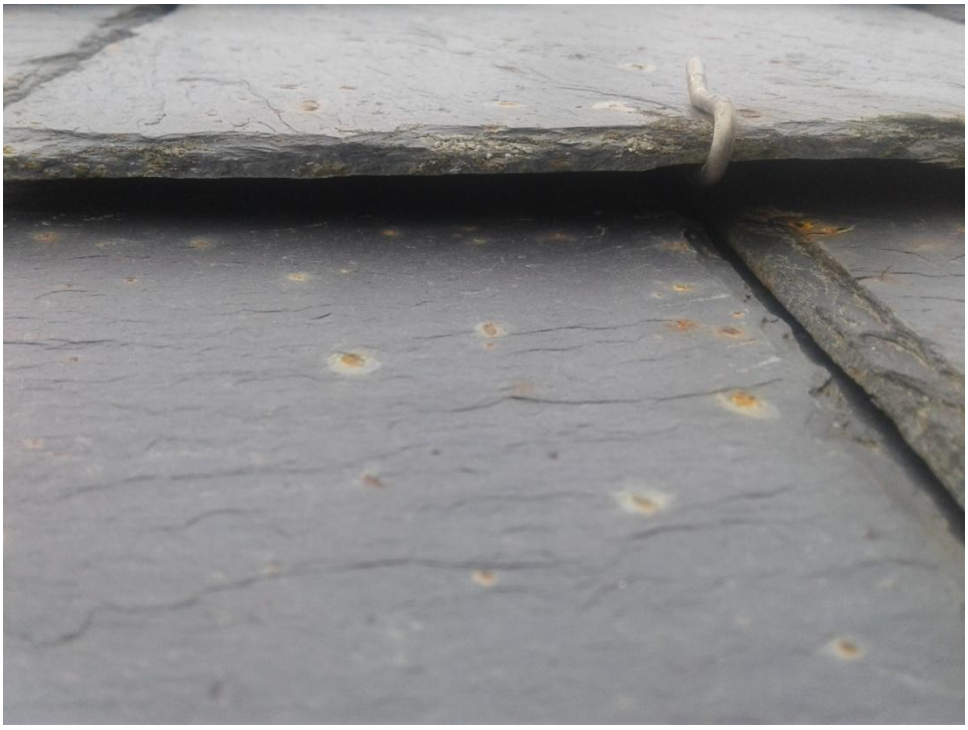

Photo 2

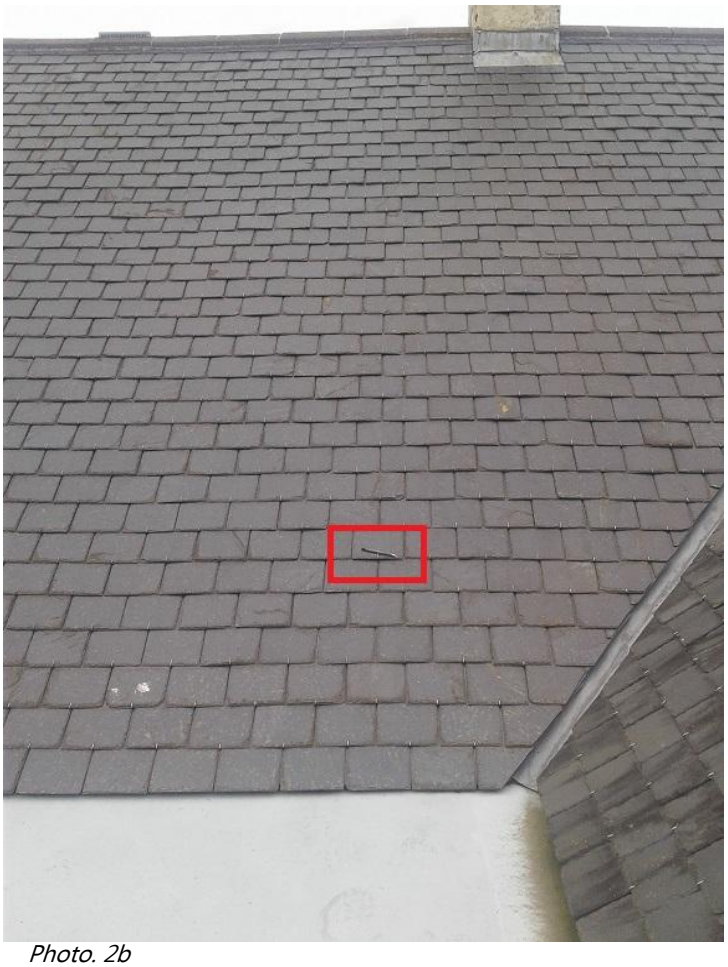

Photo. 2b

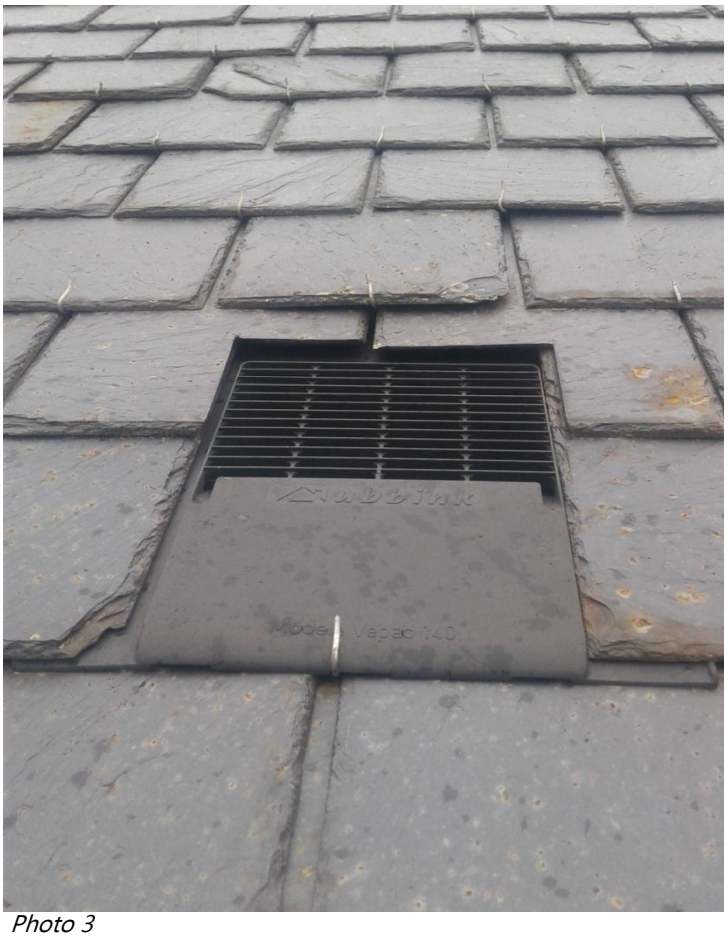

Photo 3

3.3.2 Internal

Jedi has one main loft-space. It takes up all the roof space of the smaller pitched roof and extends into part of the larger pitched roof space. Only part of the loft was boarded - the area of loft within the smaller pitched roof wasn't. The loft has collared wooden beams running east to west with wooden rafters.

The roof is lined with a breathable membrane and most of the loft is insulated with fibreglass. There were numerous cobwebs throughout the loft and no bats or signs of bats were observed. However, some of the loft area was hard to search due to safety reasons because the floor was not boarded. A high-powered torch was used to search from distance and good views of all the beams were obtained and seen to be free of sign.

Droppings found on the floor of the loft revealed the presence of Lesser White-toothed Shrew (*Crocidura suaveolens*).

4. Assessment and recommendations (excluding bats)

4.1 Nesting birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Section 1 of this Act makes it an offence to kill, injure or take any wild bird, or intentionally to take damage or destroy the nest of any wild bird while that nest is in use or being built. During this survey, no evidence was found of nests, or breeding birds. However, if works on the roof(s) are to commence between the months of March and August inclusive, then the site would need to be checked first for nesting birds and, if any nests are found, works that would disturb the nest must be postponed until all young have fledged the nest and it is no longer in use.

5. Assessment and recommendations (bats)

5.1 Survey constraints

The survey was undertaken at a time of year suitable for undertaking preliminary bat roost assessments. Part of the loft was not able to be thoroughly searched due to safety reasons.

5.2 Further survey requirements

The value of the house for bats is considered to be 'low' (see Table 1). This assessment is based on the occurrence of the following features within or immediately adjacent to the site:

- Limited potential opportunistic roost sites for a small number of bats
- Use of breathable roofing underlay (membrane) throughout the construction
- A garden with limited foraging opportunities
- Good habitat connectivity to foraging areas, particularly further to the east and south
- The property is also known to house an existing roost in a detached building on the premises.

Therefore, to confirm whether or not the house hosts roosting bats further surveys (see below) carried out during the bat active season would need to be undertaken.

5.3 Presence/absence surveys

The Bat Conservation Trust's Bat Survey Guidelines[1] (referred to by Natural England in their advice to planning officers) state that buildings with 'low' bat suitability require one dusk emergence or dawn re-entry survey between May and September. In this case, as evidence of bats has not been recorded it is recommended to carry-out one dusk emergence survey.

The surveys should take place in the period from the 1st May to mid - September and in optimum weather conditions, in order to maximise the likelihood of recording bats, with dusk air temperatures exceeding 10^0C and not rain or strong wind.

Dusk emergence surveys should commence 15 minutes before sunset and continue for up to 2 hours after sunset.

Sufficient surveyors should be used on each survey so that all aspects of the building can be viewed at one time, therefore the area should be adequately surveyed by a single surveyor. Surveyors should be positioned no more than 50m away from the buildings with an awareness of the likely exit/access points and potential roost locations. Each surveyor should be equipped with a bat detector and recording equipment and should count and note bats and their activity in a defined area.

If no roosts are found during the presence or likely absence surveys, then no further surveys would be required.

5.4 Mitigation

In order to comply with planning policy and wildlife legislation (both domestic and European) it will be necessary to ensure that following the development the "favourable conservation status" of bats will be maintained. This means that, where a roost will be lost, appropriate mitigation needs to be provided.

If roosts are found a detailed roost characterisation survey would be required to establish how bats use the roost, the intensity of use and what features and characteristics of the roost and the surroundings are important. The information gained would allow an accurate assessment of the potential impacts of the development on bats and inform the requirement of a European Protected Species Mitigation licence, to be considered and issued by Natural England prior to the works commencing.

If roosts are found, then a data search will be required to support the European Protected Species Mitigation licence if an application is required. Information should be obtained in relation to bat roost sites or any sites of nature conservation importance designated for their bat interest within or near to the proposed development site. When requesting information, a minimum search radius of 2km from the site should be applied.

6. Summary

Jedi has limited potential roost sites for a small number of bats, in particular crevice-dwelling bats (such as Common or Soprano Pipistrelle). To assess whether bats roost in the building one dusk survey carried out between mid-May and mid-September is recommended. If bats are found to be roosting in the dwelling then, the status of the roost(s) will need to be identified. Further surveys, will then be required to inform a mitigation strategy which would need to be implemented.

Other than bats, if the recommendations given in this report regarding nesting birds are adhered to, there should be no further ecological constraints to the proposals.