



**Eagle House**

**Port Talbot**

**Bat and Nesting Bird Survey Report**

**August 2021**

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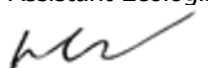
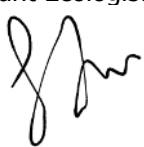
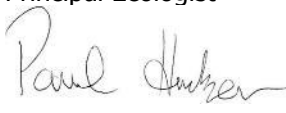
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## DOCUMENT CONTROL

| Eagle House, Port Talbot<br>Preliminary Bat Roost and Nesting Bird Assessment |                |                                                                                                                              |                                                                                                                               |                                                                                                                                    |
|-------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Revision                                                                      | Date           | Prepared by                                                                                                                  | Checked by                                                                                                                    | Approved by                                                                                                                        |
| 1.0                                                                           |                | Ffion Jones<br>Assistant Ecologist<br>    | Harri Williams<br>Assistant Ecologist<br> | Paul Hudson MCIEEM<br>Principal Ecologist<br> |
| Eagle House, Port Talbot<br>Bat and Nesting Bird Survey Report                |                |                                                                                                                              |                                                                                                                               |                                                                                                                                    |
| 2.0                                                                           | 03 August 2021 | Harri Williams<br>Assistant Ecologist<br> | Ffion Jones<br>Assistant Ecologist<br>    | Paul Hudson MCIEEM<br>Principal Ecologist<br> |

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# Acer Ecology

## Summary

|                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brief and Site Location                                         | This report presents the findings of a bat and nesting bird survey of a commercial building and an outbuilding known as Eagle House, Talbot Road, SA13 1DH (Ordnance Survey Grid Reference: SS 7681 8961).                                                                                                                                                                                                                                                                                                                      |
| Proposed Works                                                  | Plans comprise the demolition of the commercial building and outbuilding, and the construction of 20 affordable housing apartments in its place.                                                                                                                                                                                                                                                                                                                                                                                |
| Survey Methodology                                              | The survey comprised the following: <ul style="list-style-type: none"><li>• A preliminary bat roost assessment of the buildings searching for signs of bats and nesting birds;</li><li>• One dusk emergence survey of the buildings; and</li><li>• One dawn re-entry survey of the buildings.</li></ul>                                                                                                                                                                                                                         |
| Results of Preliminary Bat Roost Inspection                     | No signs of bats were found during the internal and external inspection of the commercial building. No signs of bats were found externally on the outbuilding.<br><br>The site is within a low-quality area for foraging and commuting bats.                                                                                                                                                                                                                                                                                    |
| Suitability of the commercial Building to Support Roosting Bats | Both buildings have moderate suitability to support roosting bats. Details of the features which led to this assessment are set out in Section 3.2 of this report and shown in the corresponding photographs. Justification for this assessment is provided within Section 4.2.                                                                                                                                                                                                                                                 |
| Results of Dusk Emergence and Dawn Re-entry Surveys             | No bats emerged from or interacted closely with either of the buildings during the surveys.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Evidence of Nesting Birds                                       | A large amount of historic pigeon guano and defunct eggs were found in loft void four to the northern end of the commercial building. However, no nests active or defunct were found during the survey. Furthermore, it appears that old access points that the birds may have used has been blocked.                                                                                                                                                                                                                           |
| Requirements for Additional Survey                              | None required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Predicted Impacts of Development on Bats and Nesting Birds      | Based on the conclusion that bats are highly unlikely to be using either building as a roost site, no negative direct or indirect impacts on bats are anticipated.<br><br>Old evidence of feral pigeon nesting was recorded in roof void 4 including piles of guano and defunct eggs, however, it appears that old access points have been blocked up. No evidence of current nesting was recorded during the surveys, and so no negative direct or indirect impacts to nesting birds are anticipated as a result of the works. |
| 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 a bat and nesting bird survey of a commercial building and outbuilding are known as Eagle House, Talbot Road, Port Talbot, SA13 1DH (Ordnance Survey Grid Reference: SS 7681 8961)<sup>1</sup>.

The site is situated within the boundary of Neath Port Talbot County Borough Council.

### **1.2. Site Description**

The commercial building and outbuilding are situated in a built-up area of Port Talbot, approximately 0.8km to the north of the town's large industrial zone and 2km to the east of the coast. To the north and east of the site is a residential zone comprising housing and commercial properties, and 0.1km to the west is Port Talbot Parkway Station.

The location of the site is shown on Plan 1: Location Plan.

### **1.3. Proposed Works**

Plans comprise the demolition of the existing commercial building and outbuilding, with the construction of 20 affordable housing apartments in its place.

Existing and proposed plans can be found in Drawing 1: Development Proposals.

### **1.4. Legislation and Planning Policy**

#### **1.4.1. Bats**

All UK species of bat are protected species. Their breeding sites or resting places<sup>2</sup> (roosts) are fully protected under the Wildlife and Countryside Act 1981<sup>3</sup> (as amended) and the Conservation of Habitats and Species (Amendment) (EU Exit) [CHSAEU] Regulations 2019<sup>4</sup>.

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

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<sup>1</sup> Latitude and Longitude: 51.591841882217196, -3.7796550712620536

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

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

<sup>4</sup> <https://www.legislation.gov.uk/ukdsi/2019/9780111179512>

## 1.4.2. Nesting Birds

All wild British birds (whilst building nests, nesting and sitting on eggs) and their nests and eggs, (with certain limited exceptions<sup>5</sup>) are protected by law under Section 1 of the Wildlife and Countryside Act 1981<sup>6</sup> (as amended) and the Countryside and Rights of Way Act 2000<sup>7</sup>. Some species, such as barn owls (*Tyto alba*), are listed in Schedule 1 and have additional protection from disturbance during the breeding season as do their nests, eggs and dependent young.

## 1.5. Survey Scope

The survey comprised the following:

- A preliminary bat roost assessment of the buildings searching for signs of bats and nesting birds;
- One dusk emergence survey of the buildings; and
- One dawn re-entry survey of the buildings.

## 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.

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<sup>5</sup> Details of the exceptions are available at <https://bit.ly/2KiQTFH>

<sup>6</sup> <https://www.legislation.gov.uk/ukpga/1981/69>

<sup>7</sup> <https://www.legislation.gov.uk/ukpga/2000/37>

## 2. Methods

### 2.1. Desk Study

Maps and aerial photographs of the site and surrounding area, including existing habitats, were assessed. A search for statutory and non-statutory conservation designated sites for bats within 10km was undertaken using NRW Geographic Information System (GIS) dataset. A 2km search was undertaken for all other statutory and non-statutory conservation designated sites.

A local planning portal search was undertaken looking for other sites within the same postcode area which have had bat surveys submitted as a part of their planning applications.

### 2.2. Field Study

#### 2.2.1. Daytime Internal and External Inspection

A systematic search of the exterior and interior of the commercial building was undertaken looking for features that bats could use for entering/exiting and roosting<sup>8</sup>. The outbuilding was inspected externally only. In addition, a search was made for the presence of bats or evidence of bat use, such as droppings, feeding remains, urine staining, scratch marks and the remains of dead bats. The survey was undertaken on 30<sup>th</sup> April 2021 by Paul Hudson<sup>9</sup> MCIEEM (NRW Licence Number: S088190/1) and Ffion Jones<sup>10</sup>.

A high-powered torch (Clulite), an endoscope (Ridgid Micro CA-300), binoculars and a ladder were available for use, as appropriate during the survey.

#### 2.2.2. Assessment of Bat Roost Suitability

The value of the site for bats (and any potential roost sites therein) was assessed, in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2016) (see Appendix 2). The assessment was based on the relative abundance and quality of potential roost sites, and the habitat features within both the site and the surrounding landscape suitable for roosting, foraging and commuting bats.

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<sup>8</sup> Bats may utilise gaps 8mm by 20mm (Bat Conservation Trust, Cluster flies leaflet).

<sup>9</sup> Paul graduated with a degree in Environmental Biology from Reading University and a Postgraduate Diploma in Conservation Management from the University of East Anglia. He has worked within ecological consultancy since 2000 and has undertaken bat work since 2001. He holds licences to disturb bats in both Wales (S088190/1 valid until June 2022) and England (2018-36707-CLS-CLS valid until 2028). Further details of his qualifications and experience can be found at <http://linkd.in/19aGTf4>.

<sup>10</sup> Ffion graduated from Exeter University with a degree in Ecology and Conservation Biology in 2020 during which she studied modules on biodiversity, ecological consultancy, and conservation. She has had two seasons experience of conducting bat related survey work with Acer Ecology and has undergone training with Acer Ecology in basic bat ecology and bat survey techniques (including preliminary roost assessments and dusk emergence/dawn re-entry surveys). She is listed as an accredited agent on Paul Hudson's bat licence (S088190/1).

## **2.2.3. Dusk Emergence and Dawn Re-entry Surveys**

The evening dusk emergence survey commenced 30 minutes prior to sunset, and continued until 90 minutes after sunset.

The dawn re-entry survey commenced 90 minutes before sunrise and continued for 15 minutes after sunrise.

Six surveyors: Erika Dahlberg, Ffion Jones, Ben Livick, Tom Critchley, Robbie James and Beau Gray conducted the dusk emergence survey on the 16/06/2021. Erika Dahlberg, Ffion Jones, Georgia Morris, Megan Parker, Ben Livick and Tom Critchley conducted the dawn re-entry survey on 15th of July 2021. The surveyors were equipped with Pettersson D1000X or Elekon Batlogger M bat detectors. See Appendix 4 for details of surveyor experience.

Surveyors were positioned at viewpoints where they had good sight of all elevations of the buildings, so that all potential roosting features could be observed to detect any bat emerging from or re-entering the buildings.

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 and during mornings where the previous sunset temperature was above 10°C. 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).

## **2.2.4. 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.

## **2.2.5. 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.

### Restricted Access

Not all parts of the commercial building and outbuilding could be inspected during the preliminary roost assessment. An internal inspection of the outbuilding was not possible at the time of the survey. Additionally, gaps between roof tiles, bargeboards, lead flashing and parapets of the commercial building were not able to be inspected. Gaps between the roof tiles of the outbuilding were not able to be inspected.

## Data Search

A Local Records Centre (LRC) data search was not undertaken due to the low impact and small-scale nature of the development. Current proposals suggest no land will be lost or linear features severed. The overall impact on biodiversity is likely to be localised and of low significance. It is very unlikely that the development will have any impact outside the footprint of the works. The data search results are considered unlikely to impact on the decision-making process, and there is limited potential for key information to have been missed.

This approach is consistent with CIEEM's Guidelines for Accessing and Using Biodiversity Data (2020) which states that in low impact/small-scale scenarios such as a commercial building demolition an LRC search may not be required.

## 3. Results

### 3.1. Desk Study

#### 3.1.1. Bat Roosts Reported in Planning Applications Within the Same Postcode

The planning portal search returned no bat roost records within the same postcode area as the proposed development.

#### 3.1.2. Protected Sites

The location of protected sites is shown in Plan 2: Protected Sites.

##### Statutory Sites Notified for Bats (Special Areas of Conservation (SACs)) or Sites of Special Scientific Interest (SSSIs) Within 10km

No SACs or SSSIs that have been specially designated for bats lie within 10km of the commercial building.

##### Other Protected Sites Within 2km

There are no statutory designated sites such as SACs, SSSIs, National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) either within the proposed development site or within 2km of the commercial building.

##### Non-statutory Protected Sites

##### *Ancient Woodland Sites*

There are 11 areas of Ancient Semi-Natural Woodland (ASNW)<sup>11</sup> and two Plantations on Ancient Woodland Sites (PAWS)<sup>12</sup> located within 2km, the nearest of which lies 1km to the east of the commercial building.

##### Protected Sites Summary

Given the small scale and localised nature of the proposed development, the distance between the proposed development and any designated or non-designated sites, as well as the limited scope for impacts outside of the footprint of the proposed works, no adverse impacts to the protected sites are likely to occur. These sites are not mentioned further in this report.

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<sup>11</sup> Ancient Semi-Natural Woodland (ASNW) – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years.

<sup>12</sup> Plantation on Ancient Woodland Sites (PAWS) – sites which are believed to have been continuously wooded for over 400 years and currently have a canopy cover of more than 50 percent non-native conifer tree species.

## 3.2. Field Study

### 3.2.1. Ecological Context of Site

#### Lighting

The site is assessed as being within Zone E4<sup>13</sup> (Institute of Lighting Professionals, 2012) as it lies in a commercial area with numerous streetlights and high levels of other artificial lighting levels which decreases the quality of foraging and commuting bat habitat<sup>14</sup>.

#### Site and Surrounding Habitats

The area surrounding the site provides low-quality foraging and commuting habitat for bats, as it mainly comprises commercial and residential properties with few features where bats could forage. The ecological connectivity is low due to a lack of linear features such as hedgerows and treelines, and so bats would have limited ways to commute between the building and wider landscape. There is an area of woodland approximately 1.2km to the north-east, however this is separated from the building by a large built-up area. The commercial building is also likely to be subject to high levels of lighting and noise during the night.

### 3.2.2. Building Description from the Perspective of Bat Habitat

The table below summarises the key features of the commercial building and outbuilding.

Table 1: Key Features of the Commercial Building and Outbuilding

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Building Type | The commercial building is a two-storey stone building that has been rendered in concrete on the north-eastern elevation (Photos 1-4).<br>The outbuilding is constructed of red brick on all elevations (Photos 5-8).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Roof          | The commercial building has a complex roof shape with a mix of pitched roofs and flat roofs which join the northern body of the commercial building to the south (Photo 10). The northern body of the commercial building comprises an L-shaped pitched roof (Photos 1-2). It is constructed from concrete tiles that are generally in good condition, however the roof has some features that are lifted that bats may utilise as a roost, for example, there is a gap between the parapet on the north-western gable end of the L-shaped roof (Photo 11). Additionally, there is a lifted ridge tile adjacent to the valley of the L-shaped roof (Photo 12). The southern body of the commercial building has two intersecting pitches running on a north-east to south-west axis and the other on a north-west to south-east axis creating a cross shape. The south western pitch has a lifted ridge tile adjacent to the parapet on the commercial building (Photo 13). These pitches are constructed of slate and clay ridge tiles that are generally in good condition. Edge tiles at the eaves are impeded by close-fitting guttering on the north-western and south-western elevations. Edge tiles at the gable ends are capped by stone parapets which appear to be in good condition with no obvious cracks or crevices (Photos 1-3). The commercial building has been extended at some point on the north |

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<sup>13</sup> E4: Urban lighting zone, with high district brightness.

<sup>14</sup> Lighting can impact on bats' roosting sites, commuting routes and foraging areas.

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|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | <p>eastern elevation, this has a pitched roof constructed from concrete tiles and ridge tiles, these are generally in good condition (Photo 4).</p> <p>The roof of the outbuilding is constructed from slate with clay ridge tiles, additionally, it is symmetrically pitched and hipped at the gable ends which creates extended eaves (Photos 6-9). The eaves are tightly fitting to the external brick walls of the outbuilding. The slate is generally in good condition, however, there is a slipped tile on the south eastern elevation (Photo 14). Additionally, the clay hip tiles are lifted on the south eastern elevation creating gaps that bats may be utilising (Photo 15).</p>                                                                                                          |
| Chimneys                         | There is a stone chimney on the south western elevation of the commercial building that is in relatively good condition with no visible cracks or crevices (Photo 16).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Lead Flashing                    | There are gaps under lead flashing at the joining of the parapets and slate roofs of the commercial building (Photo 17 and 18). There is lead flashing at the roof valley of the L-shaped pitched roof on the north western elevation—this is well sealed with no lifted areas suitable for roosting bats (Photo 12). There is lifted lead flashing on the external gable wall at the southern-eastern elevation of the commercial building (Photo 19).                                                                                                                                                                                                                                                                                                                                                |
| Soffits, Fascias and Bargeboards | The stone parapets on the commercial building are in good condition with no obvious gaps or cracks that bats could utilise. On the eastern elevation uPVC barge boards are tightly fitted to the external walls (Photo 30).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Vents                            | There is a metal vent on the south-western elevation of the commercial building, this is in good condition with gaps which are not suitable for use by bats (Photo 20). A uPVC vent is located on the north-eastern elevation of the commercial building (Photo 2).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| External Walls                   | <p>The north-western, south-western and south-eastern external walls of the commercial building are constructed of stone and mortar which are in good condition with no obvious cracks or crevices. The north-eastern elevation is rendered in concrete (Photo 2). The extensions on the eastern elevation are rendered in pebble dash on all elevations which are in good condition (Photos 4 and 5).</p> <p>The external walls of the outbuilding are constructed from red brick on all elevations, there are no obvious cracks or crevices within the brick work except for the slipped arch on the north-eastern elevation (Photo 21).</p>                                                                                                                                                         |
| Windows                          | <p>The wooden windows and doorframes are tightly fitted into their frames with no obvious gaps or crevices that bats could utilise, one of the windows on the north eastern elevation has been covered in metal barring (Photos 1-5).</p> <p>Ten windows on the eastern elevation of the outbuilding have been recently bricked up, the remaining windows have wooden frames and are covered with a metal mesh (Photos 6, 7, 8 and 9). The door frame on the south western elevation comprises a uPVC frame that is flush with the external wall, the doorway on the north eastern elevation of the outbuilding has been boarded up with wooden sheeting. However, there is a gap approximately 10cm in width between the wooden boards allowing access into the outbuildings' interior (Photo 8).</p> |
| Roof Void                        | Roof void one is approximately 3 m high, 7.5m wide by 14m long (Photo 22). Roof void two is approximately 1.5 m high, 4m wide by 6m long (Photo 23). Roof void three is approximately 3.5 m high, 6m wide by 17m long (Photo 24). Roof void four is approximately 3m high, 8m wide by 6m long (Photo 25).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Roof Lining                      | The roof voids are all lined with black bitumen felt (Photo 26).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Roof Construction                | The internal roof voids are built in a King post truss design.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Insulation of Void               | Some fibreglass insulation is present in the roof voids, particularly in roof void two (Photo 23).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Water Tank                       | There is a water tank within roof void three, it was empty and uncovered at the time of the survey (Photo 27).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extensions/Lean-tos/Attached Garage | A mono-pitched extension exists on the south eastern elevation of the commercial building. Constructed of slate on the roof which appears to be in good condition. The external walls comprise a concrete render and timber cladding (Photo 28), These also appear in good condition, except where the timber frame has pulled away from the stone external wall leaving a gap suitable for bats to utilise which extends the length of the extension (Photos 3, 17 and 28). Additionally, the extension on the north eastern elevation of the commercial building has a timber cladding feature which has suffered damage, creating a large opening in its foundation (Photo 29). |
| Security Lighting                   | There are six security lights on the commercial house on the north eastern, western and south western elevations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Photos Showing the Commercial Building and the Outbuilding and their Features

Photo 1: North Western Elevation of Commercial Building



Photo 2: North Eastern Elevation of Commercial Building with Highlighted Vents



Photo 3: South Western Elevation of Commercial Building



Photo 4: South Eastern Elevation of Commercial Building and Highlighted Chimney



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Photo 5: South Eastern Elevation of Commercial Building



Photo 6: South Western Elevation of Outbuilding



Photo 7: Western Elevation of Outbuilding



Photo 8: North Eastern Elevation of the Outbuilding with Highlighted Gap in Door



Photo 9: North Western Elevation of Outbuilding



Photo 10: Flat Roof Joining the Two Main Bodies of the Commercial Building



Photo 11: Lifted Parapet on Gable End of North Western Elevation of Commercial Building



Photo 12: Lifted Ridge Tile Adjacent to Valley



Photo 13: Lifted Ridge Tile Adjacent to South Western Gable End



Photo 14: Slipped Tile on Outbuilding



Photo 15: Lifted Hip Tiles on South Eastern Elevation of Outbuilding



Photo 16: Stone Chimney on South Western Elevation of Commercial Building



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Photo 17: Lifted Lead Flashing on Joining between Parapet and Slate Roof



Photo 18: Lifted Lead flashing on Joining Between Parapet and Slate Roof



Photo 19: Lifted Lead Flashing on External Wall



Photo 20: Vent on Commercial Building



Photo 21: Slipped Arch on Outbuilding



Photo 22: Roof Void One



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Photo 23: Roof Void Two



Photo 24: Roof Void Three



Photo 25: Roof Void Four



Photo 26: Lining of the Roof Voids



Photo 27: Water Tank in Roof Void Three



Photo 28: Gap Between the Timber Feature and External Wall on Commercial Building



Photo 29: Damage in Foundation of Timber Cladding on North Eastern Extension



Photo 30: Sealed uPVC Bargeboards on Eastern Elevation of Commercial Building



### 3.2.3. Potential Bat Access Points and Bat Roosting Locations

There are a number of potential access points for bats to gain entry into the interior through gaps in the ridge tiles, under slipped slate tiles, gaps under parapets, open section of a timber feature on the north eastern elevation and gaps between the timber frame and external wall of the mono-pitched extension on the commercial building, as shown in the photos in table 1.

#### Potential Roosting Sites for Bats On Commercial Building

The following potential roost sites were recorded:

- R1 – A lifted Parapet (see Photo 11);
- R2 – Gaps under ridge tiles (see Photos 12 and 13);
- R3 – Gaps under lead flashing (see Photos 17,18 and 19);
- R4 – Gap between wooden timber and external wall (see Photo 28); and
- R5 – Open foundation in timber feature (see Photo 29).

#### Potential Roosting Sites for Bats on Outbuilding

- R6 – Gap under slipped tile (see Photo 14);
- R7 – Gaps under lifted hip tiles (see Photo 15);
- R8 – Gap in brick arch (see Photo 21); and
- Interior of the outbuilding via the gap in the doorway (see Photo 8).

## 3.2.4. Dusk Emergence and Dawn Re-entry Surveys

The results of the dusk emergence and dawn re-entry survey are summarised below.

Table 2: Summary of Conditions During Dusk Emergence and Dawn Re-entry Survey

|                            | <b>Survey 1</b> | <b>Survey 2</b> |
|----------------------------|-----------------|-----------------|
| <b>Date</b>                | 16/06/21        | 15/07/21        |
| <b>Sunset/Sunrise Time</b> | 21.35 pm        | 05.15 am        |
| <b>Start Time</b>          | 21.05 pm        | 03.45 am        |
| <b>Finish Time</b>         | 23.05 pm        | 05.30 am        |
| <b>Start Temperature</b>   | 17°C            | 14°C            |
| <b>Rain</b>                | None            | None            |
| <b>Wind<sup>15</sup></b>   | 1               | 3               |
| <b>Cloud Cover</b>         | 3/8 oktas       | 1/8 oktas       |

Table 3: Summary of Dusk Emergence and Dawn Re-entry Surveys Results

|                                             | <b>Survey 1: Dusk Emergence</b>                                                                                                                                                                  | <b>Survey 2: Dawn Re-entry</b>                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Emergences/ Re-entries</b>               | No bats emerged from the building or interacted closely with the building.                                                                                                                       | No bats re-entered the building or interacted closely with the building.                                                              |
| <b>Important Commuting/ Foraging Routes</b> | No noteworthy commuting routes were identified.                                                                                                                                                  | No noteworthy commuting routes were identified.                                                                                       |
| <b>Bat Activity<sup>16</sup></b>            | Overall, very low levels of bat activity were recorded. One common pipistrelle ( <i>Pipistrellus pipistrellus</i> ) was observed commuting from north, over the ridge of the building, to south. | Overall, very low levels of bat activity were recorded. One common pipistrelle was observed commuting from the northwest to the east. |

## 3.2.5. Nesting Bird Survey

No signs of birds having recently nested were found within or on the exterior of the commercial building. However, historic evidence of nesting was indicated by piles of guano and defunct eggs of feral pigeon (*Columba livia domestica*) in roof void four. Although it appears previous access points have been blocked and there is no longer access into the void.

No signs of birds having recently nested were found on the exterior of the outbuilding.

<sup>15</sup> Estimated on site using the Beaufort scale.

<sup>16</sup> Activity thresholds have been quantified using personal judgement according to past experience of surveying similar sites.

# Acer Ecology

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## Photos Showing Historic Bird Nesting

Photo 31: Defunct Eggs



## 4. Evaluation

### 4.1. Summary of Field Work

The preliminary roost assessment and dusk emergence/dawn re-entry surveys found no evidence of bats roosting within or on the external parts of the commercial building, or on the external parts of the outbuilding.

### 4.2. Suitability of Summer Roosts

The commercial building was assessed during the initial preliminary roost assessment survey as having moderate suitability for use by crevice-dwelling bats; low suitability for use by roof-void dwelling bats; and negligible suitability for use by direct access species (horseshoe species). The outbuilding was assessed as having moderate suitability for use by crevice-dwelling bats; moderate suitability for use by roof-void dwelling bats; and low suitability for use by direct access species. Full justification of the assessment can be found in Appendix 2B. This assessment was used to determine the number of dawn re-entry and emergence surveys required (see Appendix 2A).

### 4.3. Potential Winter Roosts

It is possible that the buildings could be used by crevice-dwelling hibernating bats, but this is considered unlikely<sup>17</sup> due to the following factors:

- The lack of direct evidence of bats found using the buildings during the preliminary roost inspection<sup>18</sup> and during the dusk emergence and dawn re-entry surveys;
- The absence of any underground or subterranean features;
- The roof and walls of the buildings have smooth surfaces with few roosting opportunities;
- The internal and external walls of the buildings are generally well-mortared lacking deep penetrating crevices suitable for entry by bats; and
- The buildings are in a relatively exposed position. The buildings are not shaded by any tall structures to the south (i.e. large trees/buildings). They are therefore likely to be subject to direct sunlight throughout the winter months for much of the day and would therefore be unlikely to provide the stable, cool temperatures and humidity regime that would ordinarily be required by hibernating bats.

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<sup>17</sup> There is limited research on where pipistrelle bats hibernate, but current evidence suggests that they may hibernate adjacent to their breeding roosts in secure locations such as cavity walls that have relatively stable temperatures. Other individuals disperse to roost in small numbers in more exposed locations such as around window frames. In exposed locations pipistrelle bats typically hibernate as one or two individuals. Often there are no obvious external signs of their presence (JNCC, 2004). Because of the highly exposed location of hibernation sites used by some individuals, it is therefore very difficult to completely rule out hibernation use by this species in almost any building that has some very shallow crevices, openings or gaps.

<sup>18</sup> Due to the low levels of activity of bats in hibernation sites relatively few droppings are produced.

## **4.4. Birds – Interpretation of Nesting Bird Survey**

Old evidence of feral pigeon nesting was recorded in roof void 4 including piles of guano and defunct eggs, however, it appears that old access points have been blocked up (see Photo 31). According to the RSPB, the feral pigeon has a green conservation status (Eaton et al., 2015). Birds on this list are the least critical group.

## **5. Impact Assessment**

### **5.1. Potential Impacts of the Development on Bats**

Based on the conclusion that bats are highly unlikely to be using either building as a roost site, no negative direct or indirect impacts on bats are anticipated.

### **5.2. Potential Impacts of the Development on Birds**

Old evidence of feral pigeon nesting was recorded in roof void 4 including piles of guano and defunct eggs, however, it appears that old access points have been blocked up. No evidence of current nesting was recorded during the surveys, and so no negative direct or indirect impacts to nesting birds are anticipated as a result of the works.

## 6. Required Actions

### 6.1. Licensing Requirements for Bats

The survey results indicate that the buildings are not currently being used as a roost by bats and so a European Protected Species (EPS) licence will not be required.

### 6.2. Precautionary Measures

No evidence of any use by roosting bats was recorded on site and it is therefore highly unlikely that bats or their roosts will be affected by the works. 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 (if bats are encountered, the bat will be carefully covered over again). Appropriate advice will be obtained from a suitably qualified bat consultant or Natural Resources Wales 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<sup>19</sup>;
- Contractors will check for the possible presence of bats on the undersides of roofing tiles, ridge 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;
- Contractors will perform the work by hand as much as possible; 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 Enhancements for Bats

The Environment (Wales) Act 2016, Planning Policy Wales (Edition 11, January 2021), TAN 5 *Nature Conservation and Planning* (2009) Planning Policy Wales Edition 11 (2021) and the Neath Port Talbot Local Development Plan<sup>20</sup> stipulate that development projects minimise ecological damage and contain elements of ecological enhancement.

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<sup>19</sup> Some bird species, especially raptors and owls remain dependent upon the nesting site after fledging and so depending upon the species the nest site may need to be protected for a period of time after fledging.

<sup>20</sup>[https://www.npt.gov.uk/PDF/ldp\\_written\\_statement\\_jan16.pdf](https://www.npt.gov.uk/PDF/ldp_written_statement_jan16.pdf)

Ecological enhancement measures could be provided within the proposal and could include the addition of One Schwegler 1FR bat tube (see Appendix 5) or a Habibat In-Wall Bat Box (see Appendix 6) or equivalent<sup>8</sup> which can be incorporated into the exterior wall of the building. Alternatively, the new fascias, soffits and gutter-plates etc. could be left with small gaps beneath to allow access by crevice-dwelling bats behind them<sup>21</sup>.

In addition, consideration<sup>22</sup> will be given to using landscaping and garden design to provide habitat suitable for bats by encouraging night-flying invertebrates. Plant species that provide a rich source of nectar should be used. Suitable species include flowering herbs such as lavender (*Lavandula* sp.), violets (*Viola* sp.); or shrubs such as flowering currant (*Ribes sanguineum*), privet (*Ligustrum vulgare*), forsythia (*Forsythia* sp.), dogwood (*Cornus sanguinea*), berberis (*Berberis* sp.), pyracantha (*Pyracantha* sp.) and ceanothus (*Ceanothus* sp.).

## 6.4. Longevity of Report

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 factors<sup>23</sup> (Collins, 2016). If development works do not begin within eighteen months to two years of the date of this report, an update survey may be required in accordance with guidance in BS 42020:2013<sup>24</sup> and CIEEM (2019), to determine if conditions and evidence of bat use has changed since described in the current report.

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<sup>21</sup> This approach will only be acceptable if breathable membrane will not be installed within the building or the fascia, soffits etc. or the fascias, soffits etc. will be installed in a way where there is no potential for bats to gain access to the breathable membrane.

<sup>22</sup> Landscaping provision is considered an enhancement that would be desirable, but the mitigation scheme will still be acceptable if this is not implemented. As a result, it is not considered appropriate to use enforceable language stating that this will definitely be implemented.

<sup>23</sup> 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.

<sup>24</sup> 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 (2020)** *Guidelines for Accessing, Using and Sharing Biodiversity data in the UK*. <https://cieem.net/wp-content/uploads/2016/03/Guidelines-for-Accessing-and-Using-Biodiversity-Data-March-2020.pdf>

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

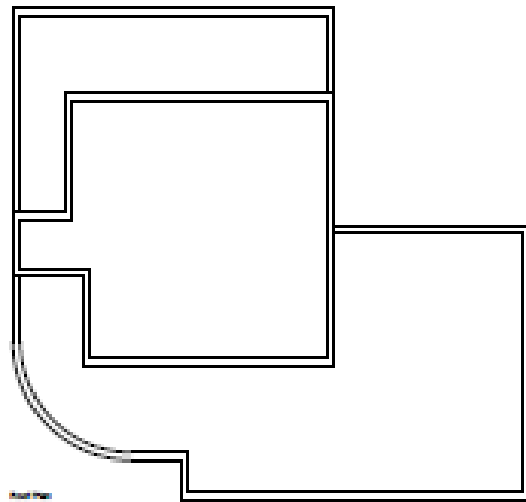
**Eaton, M, Aebischer, N, Brown, A, Hearn, R Lock, L, Musgrove, A, Stroud, D and Gregory, R (2014)** Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds* 108. December 2015. 708-746. Available online at <http://bit.ly/2h23DqV>.

**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

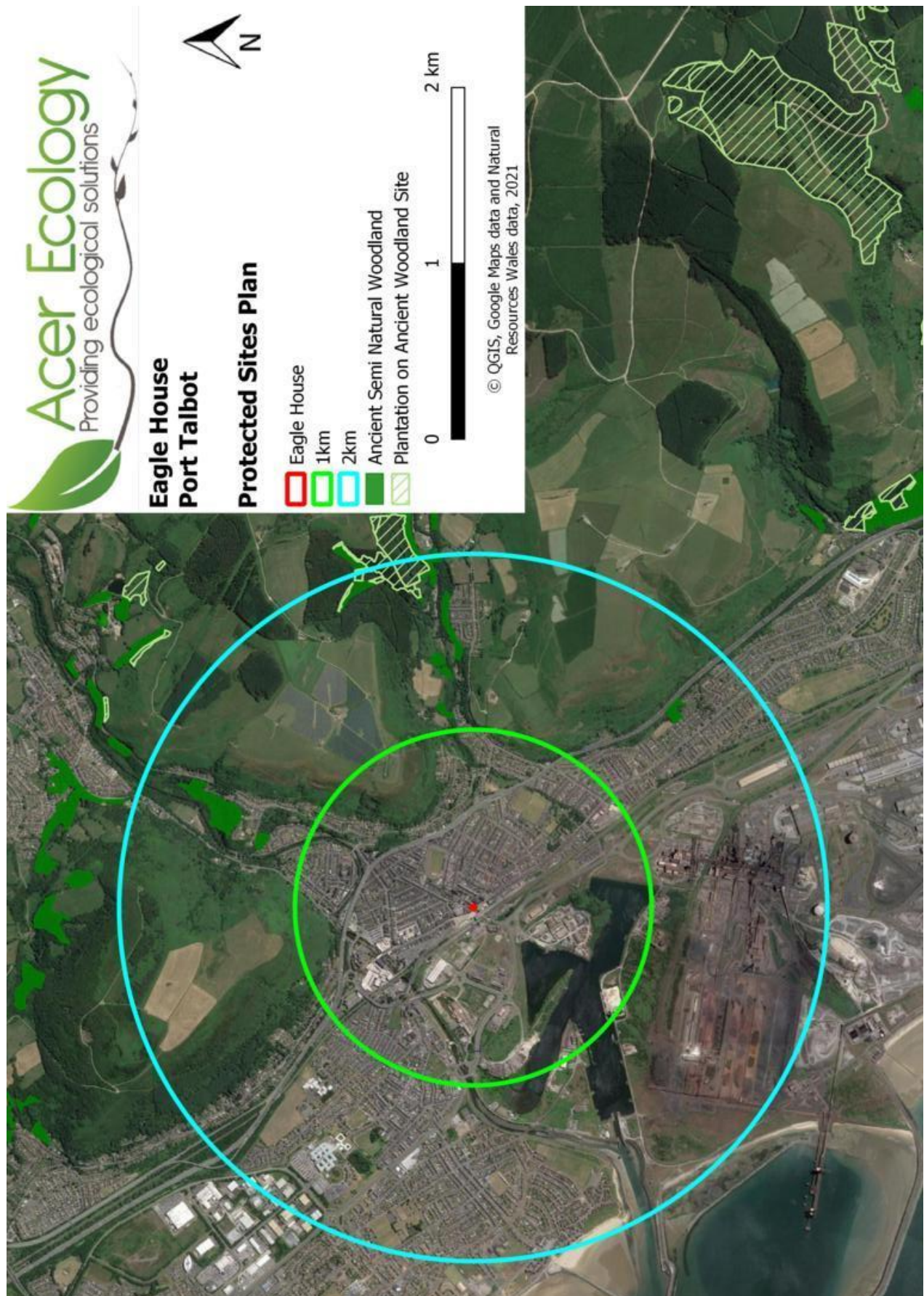


|                                                                                                                                                                                               |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Contact: Acer Ecology<br>Technical Services and Project Management<br>Email: <a href="mailto:info@acer-ecology.co.uk">info@acer-ecology.co.uk</a><br>Phone: 01487 741100<br>Fax: 01487 741101 |                   |
| <b>The Eagle<br/>Port Talbot</b>                                                                                                                                                              |                   |
| <b>Title</b>                                                                                                                                                                                  | <b>Date</b>       |
| <b>Elevation and Roof Plan</b>                                                                                                                                                                | <b>15.06.2021</b> |
| <b>Drawn</b>                                                                                                                                                                                  | <b>Drawn by</b>   |
| <b>Planning</b>                                                                                                                                                                               | <b>11/08</b>      |
| <b>Reference</b>                                                                                                                                                                              | <b>Project</b>    |
| <b>1487-PA-103</b>                                                                                                                                                                            | <b>PA</b>         |
| This report/development plan provides the information requested for the planning application.<br>The drawing is a copy.                                                                       |                   |

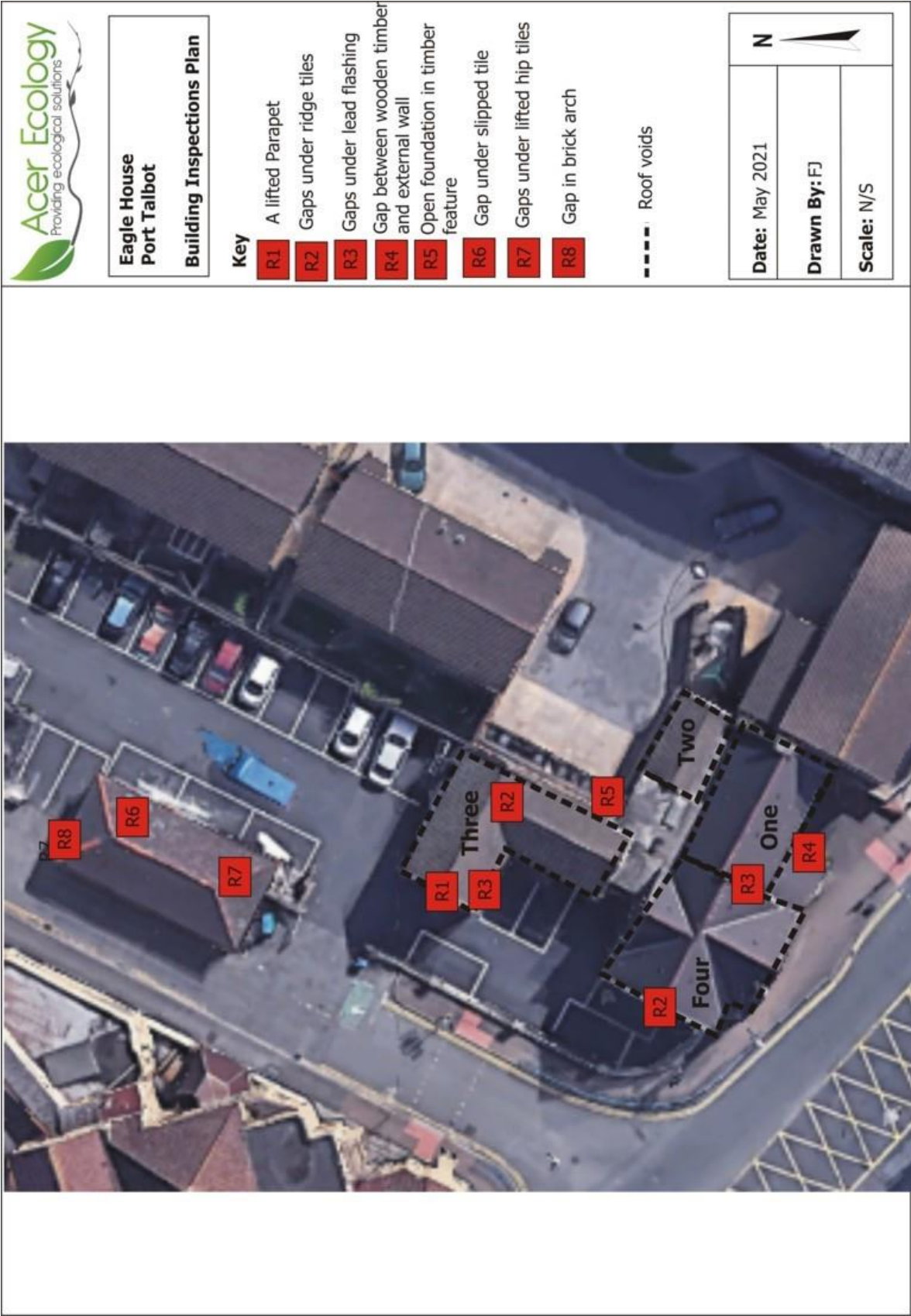
## Plan 1: Location Plan



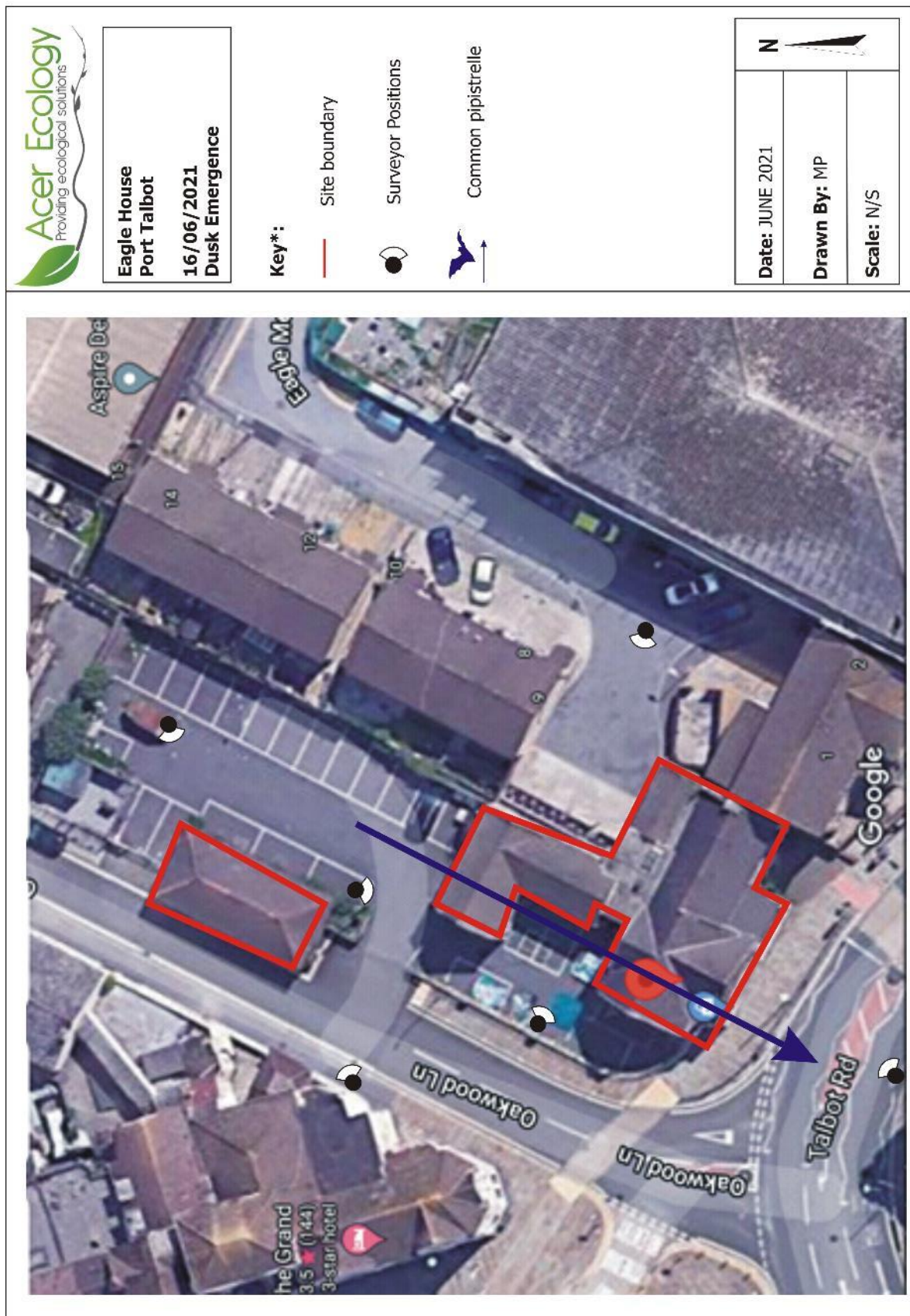
## Plan 2: Protected Sites Within 2km



Plan 3: Building and Preliminary Roost Inspection



## Plan 4A: Dusk Emergence Survey Results (16<sup>th</sup> June 2021)



Plan 4B: Dawn Re-entry Survey Results (15<sup>th</sup> July 2021)



## **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 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 fully protected under the Wildlife and Countryside Act 1981 (as amended) and 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 significantly affect the local distribution or abundance of the species to which they belong.

## 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.

## Planning Policy

*‘Planning Policy Wales Edition 11 (2021): Biodiversity and Ecological Networks section 6.4 Paragraph 6.4.5, The Environment (Wales) Act 2016<sup>25</sup> enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty) and TAN 5 Section 40(1) of the Natural Environment and Rural Communities Act (NERC) 2006 all encourage developments in Wales to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.*

Part 1, Section 7 of the Environment (Wales) Act 2016 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).

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<sup>25</sup> <http://www.legislation.gov.uk/anaw/2016/3/contents>

## Appendix 2A: Guidelines for Assessing Potential Bat Roosting Suitability and Determining Required Number of Dusk/Dawn Surveys

| Suitability     | Description of Roosting Habitat                                                                                                                                                                                                                                                                                                                                                                                   | Minimum Number of Dusk/Dawn Surveys Required <sup>26</sup>                                                                                                                                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible      | Negligible habitat features on site likely to be used by roosting bats.                                                                                                                                                                                                                                                                                                                                           | None.                                                                                                                                                                                                                                                                                                                                                                |
| Low             | A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection appropriate conditions <sup>27</sup> and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity) or hibernation <sup>28</sup> . | One survey visit. One dusk emergence or dawn re-entry survey (Survey period from May to August) (Collins 2016).                                                                                                                                                                                                                                                      |
| Moderate        | A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status <sup>29</sup> (with respect to roost type only) the assessments in this table are made irrespective of conservation status, which is established after presence is confirmed.                | Two separate survey visits. One dusk emergence and a separate dawn re-entry survey <sup>30</sup> . Surveys should be undertaken from May to September with at least one of the survey between May and August (Collins 2016).                                                                                                                                         |
| High            | A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.                                                                                                                                                   | Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. Surveys should be undertaken from May to September with at least two of the surveys from May to August (Collins 2016).                                                                                                  |
| Confirmed Roost | Evidence of bats or use of bats found.                                                                                                                                                                                                                                                                                                                                                                            | Minimum of two required to characterise the roost. If it is not possible to characterise the roost on the basis of two surveys, additional surveys may be required. In the event that no evidence of bat roosting is detected during the dusk and dawn surveys a third survey may be required. In this situation DNA analysis of the droppings may also be required. |

<sup>26</sup> Adapted from Tables 7.1 and 7.3 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

<sup>27</sup> For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

<sup>28</sup> Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for large numbers of this species to be present during the autumn and winter in large buildings in highly urbanized environments.

<sup>29</sup> 'High roost status' is not defined within Collins, 2016. Acer Ecology Ltd. interpret maternity, hibernation, swarming sites, mating sites, and satellite roosts as being of 'high roost status' and exclude day roosts, night roosts, feeding roosts, transitional/occasional roosts from this definition. Pre-maternity/collecting roosts are not included within Collins, 2016 and will be assessed on an individual basis.

<sup>30</sup> Multiple surveys should be spread out to sample as much of the survey period as possible. It is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk survey is considered only one visit.

## Appendix 2B: Justification for Number of Surveys Undertaken

From the assessment made during the survey, the commercial building is assessed as having:

- Moderate suitability for use by crevice-dwelling (*Pipistrellus* species and smaller *Myotis* species such as Brandt's (*Myotis brandtii*) and Whiskered bats (*Myotis mystacinus*)). The commercial building has numerous potential access points and roosting features which crevice-dwellers could utilise. These include gaps under ridge tiles on two of the pitches, one at the edge of the roof valley and one adjacent to the south-western gable end. Additionally, the gap between the external wall and timber feature on the mono-pitched extension provides a roost and access feature for bats. While these features have potential to be used by roosting bats, they are unlikely to support a roost of high conservation status;
- Low suitability for use by roof-void-dwelling bats (long-eared species and large *Myotis* bats, such as Natterer's bat (*Myotis nattereri*) and serotine bats (*Eptesicus serotinus*)). The commercial building has access and roosting features which roof-void dwellers could utilise. As mentioned above, lifted ridge tiles could be used to gain entry into the void, however, evidence of these bats in roof voids are usually readily apparent and no evidence was found during the survey; and
- Negligible suitability for use by direct access species requiring a large access point and large roost space (lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats)), due to the lack of suitable access points. Additionally, use by direct access species is considered unlikely due to the high light levels and low-habitat quality in the surrounding area.

From the assessment made during the survey, the outbuilding is assessed as having:

- Moderate suitability for use by crevice-dwelling bats. The outbuilding has a number of potential access points and roosting features which crevice-dwellers could utilise. These include lifted hip tiles and a slipped tile on the south eastern elevation and between the brick work on the north eastern elevation;
- Moderate suitability for use by roof-void-dwelling bats. The outbuilding has some potential access points and roosting features such as those stated above. Additionally, an internal inspection was not possible at the time of the survey; and
- Low suitability for use by direct access species requiring a large access point and large roost space (lesser horseshoe and greater horseshoe bats), due to the gap in the doorway on the north eastern elevation of the outbuilding. However, use by direct access species is considered unlikely due to the high light levels and low-habitat quality in the surrounding area.

# Acer Ecology

## Appendix 3: Guidelines for Assessing Bat Habitat Suitability

| Suitability | Commuting and Foraging Habitat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible  | Negligible habitat features on-site likely to be used by commuting and foraging bats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Low         | <u>Commuting Habitat</u><br>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.<br><u>Foraging Habitat</u><br>Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.                                                                                                                                             |
| Moderate    | <u>Commuting Habitat</u><br>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.<br><u>Foraging Habitat</u><br>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.                                                                                                                                                                                                                       |
| High        | <u>Commuting Habitat</u><br>Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.<br><u>Foraging Habitat</u><br>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.<br><u>Proximity to Known Bat Roosts</u><br>Site is close to and connected to known roosts. |

## Appendix 4: Surveyor Experience

### 16<sup>th</sup> June 2021

Erika Dahlberg – Erika is employed as a Senior Bat Ecologist with Acer Ecology Ltd. She graduated from Portsmouth University with a BSc (Hons) in Animal Management and from Napier University Edinburgh with a PGDip in Wildlife Biology and Conservation. She has been conducting professional bat surveys since 2009. She holds Welsh (NRW Licence Number S088416/2) and English bat licences (2015-17115-CLS-CLS) and is experienced in undertaking preliminary roost inspections, dusk emergence and dawn re-entry surveys. Further details of her qualifications and experience can be found at <https://www.linkedin.com/in/erika-dahlberg-287b7596>.

Ffion Jones – Ffion graduated with a degree in Conservation and Ecology at the University of Exeter. As part of her degree, she undertook an Ecological Consultancy module where she learnt about bat ecology, survey methods and bat call analysis. She has undertaken training with Acer Ecology, including bat ecology, emergence/re-entry surveys and transect surveys. Further details of her qualifications and experience can be found at <https://www.linkedin.com/in/ffion-jones-17ab63197>.

Ben Livick – Ben has a BSc in Ecology from Nene University and has been undertaking training in bat ecology and bat surveys with Erika Dahlberg since May 2019. He has also spent significant amounts of time volunteering for various conservation projects.

Tom Critchley - Tom graduated in 2020 with a degree in Marine and Natural History Photography from Falmouth University. He will be beginning an MSc in Environmental Policy and Management at the University of Bristol in September 2021. He recently joined Acer Ecology Ltd as a Sub-Contractor, being involved with both dusk emergence and dawn re-entry surveys. More details of his qualifications can be found at: <https://www.linkedin.com/in/tom-critchley-/>.

Robbie James - Robbie is a Biology graduate from Swansea University. He is in his second season of bat survey work with Acer Ecology Ltd. Further details of his qualifications and experience can be found at <https://www.linkedin.com/in/robbie-james-87418116b>.

Beau Gray - Beau is a graduate in plant science from the Eden Project, with a top-up in Environment Resource Management from the University of Plymouth. Supplementing working as an agricultural research assistant at Coleg Sir Gâr, he undertakes Dusk Emergence and Dawn Re-entry Surveys for Acer Ecology Ltd.

### 15<sup>th</sup> July 2021

Erika Dahlberg – as above.

Ffion Jones – as above.

Georgia Morris – Georgia graduated from Cardiff University with a degree in Biological Sciences (Zoology) in 2021. She is currently receiving training for her first season of bat work, as part of a summer internship programme at Acer Ecology. Further details of her qualifications and experience can be found at <https://www.linkedin.com/in/georgia-morris-a087ab1a7/>.

Megan Parker – Megan is an undergraduate at Cardiff university currently undertaking an integrated masters in Biological sciences. She is currently receiving training from Acer Ecology for her first season of bat work, as part of a summer internship programme. More information on her qualifications and experience can be found at <https://www.linkedin.com/in/megan-parker-a5a404200/>.

Ben Livick – as above.

Tom Critchley – as above.

## Appendix 5: Schwegler 1FR Bat Tube



### Woodcrete Bat Tubes

These are a well-known brand that have a low visual impact on the development because they can be built into the exterior wall and then rendered or painted.

### How Many to Install

Typically, one tube is recommended on sites where there are low numbers of bats and multiple groups of tubes are recommended on sites of high ecological significance.

### Installation

The tubes should be built into the exterior wall of the building, typically at the gable apex. The tubes should be installed flush with the surrounding wall and can then be rendered or painted with breathable paint if required.

### Schwegler 1FR and 2FR

These are two similar designs. The 1FR is designed to be used singularly (shown here) whereas the 2FR has transverse connecting holes that allow tubes to be collected together or lead into the cavity wall.

### Specifications

|               |               |
|---------------|---------------|
| <b>Height</b> | <b>47.5cm</b> |
| <b>Width</b>  | <b>20cm</b>   |
| <b>Depth</b>  | <b>12.5cm</b> |
| <b>Weight</b> | <b>9.8kg</b>  |

### Location

The tubes should be positioned at least 0.5m below the eave or gable apex to prevent predation by domestic cats. It is also recommended that where practical, the tubes are not positioned above windows or doors.

# Acer Ecology

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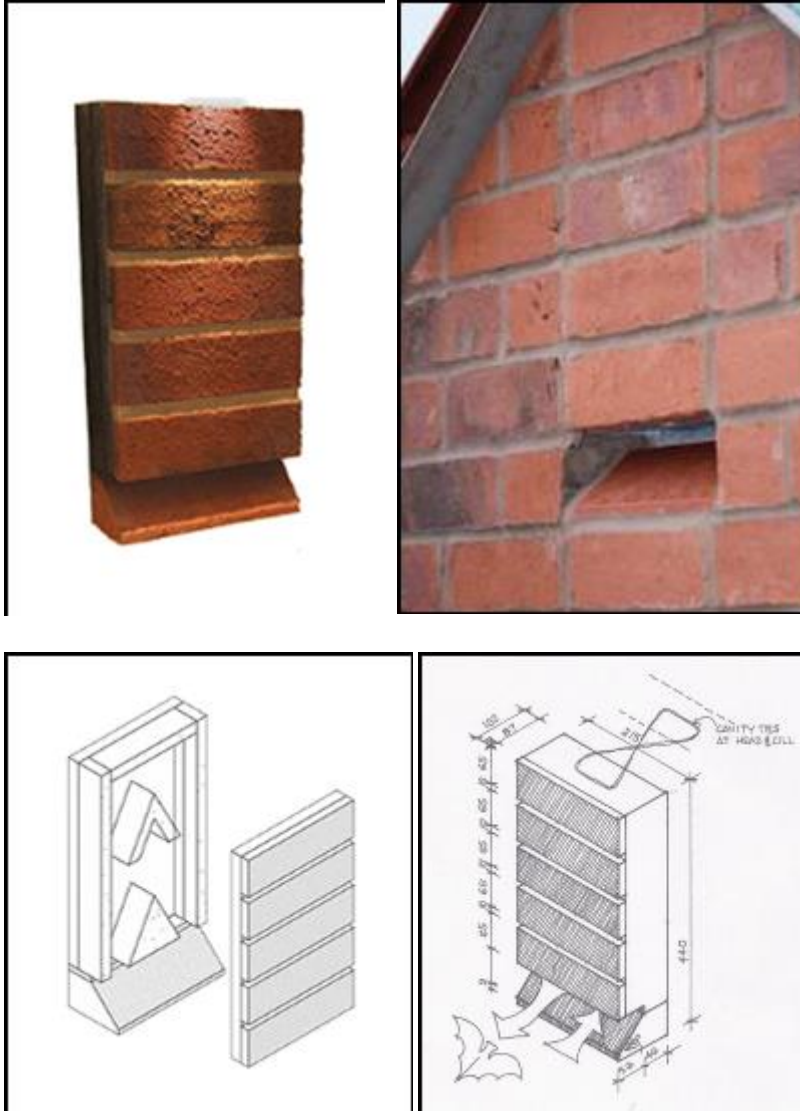


Tube not rendered



Tube rendered over

## Appendix 6: Habibat In-Wall Bat Box



The Habibat Bat Box is a large, solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. This box is made to order and faced in brick to match your building. If you do not know your brick code you can send 6 of your own bricks to be used on the face of the box. It is supplied un-pointed so it can be matched as closely as possible to the building.

The Habibat box is suitable for species which are most commonly found roosting in buildings in the UK, such as Pipistrelle, Natterer's, Whiskered, and Brandt's bats. The bat box should be located where it will receive the maximum amount of sunlight i.e be the southerly aspects/orientation (south, southwest and southeast).