



**Glaven Ecology**



## **Former Piggery Bedingfield House Farm**

**Preliminary Roost  
Appraisal**

**Prepared by  
Glaven Ecology**

**on behalf of  
Brown & Co**

October 2021

Reference: 25-2101-GE-BC

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Version	Status	Changes	Date	Author
1.1	Draft	Site visit and desktop results added	20/10/2021	Carolyn Smith BSc (Hons), MCIEEM
1.3	Issued	Reviewed	22/10/2021	Carolyn Smith BSc (Hons), MCIEEM

*The data contained within the report are accurate to the best of our knowledge and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.*

*The report conforms to the British Standard 42020:2013 Biodiversity – Code of practice for planning and development.*

*We confirm that any opinions expressed are our best and professional true opinions. This report has been prepared by an ecology specialist and does not purport to provide legal advice.*

*Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that animals and plants can migration/establish and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.*

# 1 Summary

- 1.1 Glaven Ecology was commissioned to undertake a Preliminary Roost Assessment (PRA) on a former piggery at Bedingfield House Farm, Bedingfield Street, IP23 7LG. The survey work was completed by Carolyn Smith BSc. (Hons) MCIEEM on 18<sup>th</sup> October 2021.
- 1.2 Planning is sought for the conversion of part of the former piggery to provide a hydrotherapy centre for dogs.
- 1.2.1 The site does not sit within any SSSI Impact Risk Zones.
- 1.3 The piggery was assessed as having negligible potential for bats, with minimal roosting opportunities noted.
- 1.4 No other protected species were assessed as being on site.
- 1.5 The following recommendations have been made for protected species:

Species	Requirement for Further Surveys and Recommendations
Bats	No further surveys required.  Any external lights associated with the finished project should be of a low light level to minimise impacts on bats that might forage and commute in the vicinity.  Warm white lights should be used at <2700k. This reduces the ultraviolet component or that has high attraction effects on insects which can lead to a reduction in prey availability for some light sensitive bat species.
Birds	No further surveys required.

- 1.6 Enhancement suggestions include the installation of a bat and bird box.

## 2 Introduction

### 2.1 Background

2.1.1 Glaven Ecology was commissioned to undertake a Preliminary Roost Assessment (PRA) on a former piggery at Bedingfield House Farm, Bedingfield Street, IP23 7LG. The survey work was completed by Carolyn Smith BSc. (Hons) MCIEEM on 18<sup>th</sup> October 2021.

2.1.2 The survey and report aim to describe how the building supports birds, bats and any other protected species. It assesses potential impacts on these features as a result of the works and advises on the need for further surveys or mitigation strategies.

### 2.2 Site Location and Description

2.2.1 The site was located at OS Grid Reference TM 1767 4664 (Appendix 1) and consisted of a brick building formerly used as a piggery. The building had been storm damaged and there was no roof covering at the time of the survey. The building stood within hardstanding in a working farmyard.

2.2.2 The wider environment is dominated by arable land with small pockets of woodland scattered throughout.

### 2.3 Project Overview

2.3.1 Planning is sought for the conversion of part of the former piggery to provide a hydrotherapy centre for dogs.

## 3 Legal Protection

3.1.1 The main piece of legislation relating to nature conservation in Great Britain is The Wildlife and Countryside Act 1981 (as amended). This Act is supplemented by provision in The Countryside and Rights of Way (CRoW) Act 2000 and The Natural Environment and Rural Communities Act 2006 (in England and Wales).

3.1.2 UK wildlife is also protected under The Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2010, these Regulations, together with subsequent amendments, were consolidated into The Conservation of Habitats and Species Regulations 2010.

### 3.2 Bats

3.2.1 All bat species are listed under Annex IV (and certain species also under Annex II) of the European Union's Council Directive 92/43/EEC (The Habitats Directive) and are given UK protected status by Schedule 2 of the Conservation of Habitats and Species Regulations 2010. All UK bat species are also protected under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).

3.2.2 This legislation fully protects bats and their breeding sites or resting places, making it an offence to deliberately capture, injure or kill bats, deliberately disturb bats, damage or destroy a bat breeding or resting place.

### 3.3 Birds

3.3.1 All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Certain species (including barn owl *Tyto alba*) are also listed under Schedule 1 of the Wildlife and Countryside Act 1981, which prevents disturbance of the species or its nest and/or eggs at any time with protection by special penalties.

### 3.4 Statutory Designated Conservation Sites

3.4.1 National designations such as Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR), are afforded statutory protection. SSSIs are notified and protected under the Wildlife and Countryside Act 1981 as amended. SSSIs are notified based on specific criteria, including the general representativeness and rarity of the site and of the species or habitats supported by it.



## 4 Survey Methods

### 4.1 Desk Study

4.1.1 Records held on Magic.gov.uk on Designated Sites and granted European Protected Species Licences were reviewed in October 2021.

4.1.2 A quantification of the value of the building for bats was carried out using the Bat Roost Trigger Index (BRT) (Underhill-Day, 2017). The BRT Index uses a suite of 28 environmental and habitat features recorded during the PRA survey which are known to influence roost selection. This generates a numerical value, from 0 to 1, which is in turn used to assign to a corresponding roost suitability class of either negligible, low, moderate or high potential. This is used as guidance only.

### 4.2 Protected Species Survey

4.2.1 The survey was undertaken by Carolyn Smith BSc (Hons) MCIEEM (Natural England Level 1 Licence for bats [reference 2018-34461-CLS]) and barn owl class licence [reference CL29/00568]) on 18<sup>th</sup> October 2021.

#### *Bats*

4.2.2 A Preliminary Roost Assessment was completed on the building. The survey work was completed in accordance with the Bat Conservation Trust's "Bat Surveys for Professional Ecologists" (Collins, 2016). A scoring system was applied to the building using the criteria shown in Table 1.

4.2.3 The building was investigated for evidence of bat use and evaluated for bat roosting potential. The visual search for signs of bats consisted of a slow methodical search both internally and externally for actual roosting bats and their signs:

- Droppings on walls, windowsills and floors can be used to identify species;
- Scratch marks and staining at roosts and exit holes can be used to identify the presence of bats;
- Dense spider webs at a potential roost can often indicate bat absence;
- The presence of butterfly wings may be an indication of bat presence.

Table 1: Assessing the potential suitability of a development site for bats (Collins, 2016)

Suitability	Description of roosting habitats	Description of commuting and foraging habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features onsite likely to be used by commuting or foraging bats
Low	<p>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 and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats</p> <p>A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat</p> <p>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</p>
Moderate	A structure or tree 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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed)	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
High	A structure or tree 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	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

### Birds

4.2.4 Evidence of nesting birds was searched for and the site was assessed as to its potential to support nesting birds including barn owls.

4.2.5 Table 2 shows the criteria used when assessing the likelihood of a protected species being present within the survey area:

Table 2: Criteria considered when assessing the likelihood of occurrence of protected species

Assessment Category	Criteria
Present	Species are confirmed as present from the current survey or historical confirmed records.
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape. Good quality surrounding habitat and good connectivity.
Moderate	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality or small in size. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.



## 5 Results

### 5.1 Desk Study

5.1.1 No statutory designated sites were identified within 2km of the site on MAGIC Maps and data.gov.uk.

5.1.2 The site does not sit within any SSSI Impact Risk Zones. The nearest SSSI is Micklefield Meadow 5km to the southwest.

5.1.3 There are no records of a granted European Protected Species Mitigation Licence within 2km of the site showing on MAGIC maps.

5.1.4 The Bat Roost Trigger (BRT) assessment concluded that the building offers negligible roost suitability for bats giving a score of 0.47 (Table 4). The full results of this assessment and the 28 roost selection parameters used in the BRT Index are included in Appendix 2.

Table 4: Bat roost trigger index score and roost suitability class highlighted for the building (Underhill-Day, 2017)

> 0.7	HIGH	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.
0.6 - 0.7	MODERATE	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.
0.5 - 0.6	LOW	One survey visit. One dusk emergence or dawn re-entry survey.
< 0.5	NEGLIGIBLE	No further surveys required. Reasonable precautionary measures applicable.

### 5.2 Protected Species - Bats

#### Foraging and Commuting

5.2.1 The habitats immediately around the site were considered to have **moderate** potential to support foraging and commuting bats. The wider environment offered **moderate** foraging and commuting opportunities being dominated by open arable fields.

## Visual inspection

5.2.2 The piggery was on hardstanding in a farmyard and was of brick and breezeblock construction. The roof had recently been removed due to storm damage and the roof structure was exposed (Figures 1 and 2).

5.2.3 The wooden beams were narrow and machine cut with other metals beams for support (Figure 3).

5.2.4 There were some gaps on the brickwork on the western aspect but these were wide and gave access into the building rather than offering sheltering opportunities.

5.2.5 Where the window frames were still in-tact they were flush with the brickwork.

5.2.6 There was a small amount of weatherboarding on the western aspect (Figure 4). This was well single-skin and well-sealed.



Figure 1: Western aspect.



Figure 2: Eastern aspect.



Figure 3: Tightly sealed roof tiles.



Figure 4: Small area of weatherboarding.

5.2.7 Internally the space was clear of stored items and all areas were available for survey (Figure 5).

5.2.8 There were some cracks in the internal walls but these appeared shallow and full of mortar debris when inspected.

5.2.9 The wooden doors on the eastern aspect were all pinned back to the inside wall creating potential sheltered areas (Figure 6). However, on inspection the inside of the doors were all heavily cobwebbed with no bat droppings on the ledges or the woodwork.



Figure 5: Internal view



Figure 6: Pinned back wooden doors on eastern aspect.

5.2.10 No signs of bats such as droppings or staining were found during the visual inspection of the building. No actual bats were observed.

5.2.11 The building was assessed as having **negligible potential** to support roosting bats with no roof covering. Even with the roof covering it is thought that the building would still have presented with minimal roosting opportunities

5.2.12 The building has **negligible potential** to support hibernating bats being small and not offering suitable internal roosting opportunities.

### 5.3 Other protected species

5.3.1 There was moderate bird activity in the garden area to the east of the site, but no birds or bird's nests were noted within the site boundary.

5.3.2 The building didn't offer any suitable areas for barn owl nesting and no barn owl pellets or feathers were found.

5.3.3 No evidence of any other protected species was found during the survey.

## 5.4 Survey Limitations

5.4.1 There were no significant constraints to the surveys.

## 6 Impact Assessment

6.1.1 Table below summarises the potential impacts of the works:

Table 5: Impact assessment on the ecology of the site

Ecological Factor	Impact Assessment
Designated Sites and Habitats	<p>No impacts on Designated Sites are envisaged given the scale of the development and distance to Designated Sites.</p> <p>No other habitats of ecological significance will be impacted by the proposed works</p>
Bats	<p>The field survey and desk study conclude bats are highly unlikely to be present on site.</p> <p>The development is not considered to have a significant impact upon commuting or foraging bats and there will be no severing of connectivity.</p> <p>The works will have a negligible impact on these species.</p>
Birds	<p>No bird's nests were noted within the site boundary and nesting opportunities were limited.</p> <p>It is considered that the works will have a negligible impact on local bird populations.</p>



## 7 Recommendations

7.1.1 As good practice, any trenches or holes created during the works must be backfilled at the end of the day or covered overnight to ensure any wildlife passing through the site, such as hedgehogs, do not get trapped.

7.1.2 The following species-specific recommendations are made for the site:

Table 6: Recommendations for further surveys and mitigation

Species	Requirement for Further Surveys and Recommendations
Bats	<p>No further surveys required.</p> <p>Any external lights associated with the finished project should be of a low light level to minimise impacts on bats that might forage and commute in the vicinity.</p> <p>Warm white lights should be used at &lt;2700k. This reduces the ultraviolet component or that has high attraction effects on insects which can lead to a reduction in prey availability for some light sensitive bat species.</p>
Birds	<p>No further surveys required.</p>

## 8 Enhancements

8.1 The Local Planning Authority has a legal duty to consider enhancements on proposed development sites. Furthermore, the National Policy Planning Framework (NPPF) requires planning decisions to aim to promote net gains in biodiversity on development sites.

8.2 The following enhancements are suggested for the site (see also Appendix 4):

- A bat box could be installed on the southern aspect of the building, at least 3m high where there is a clear flight path for bats entering and leaving. The [Beaumaris bat box](#) is a popular choice as is the [Schwegler 1FQ Bat Roost](#).
- Install a bird box on the eastern aspect close to the eaves. Suitable boxes include the [Vivara Pro Seville WoodStone Nest Box](#) and the [Eco Small Bird Box](#).

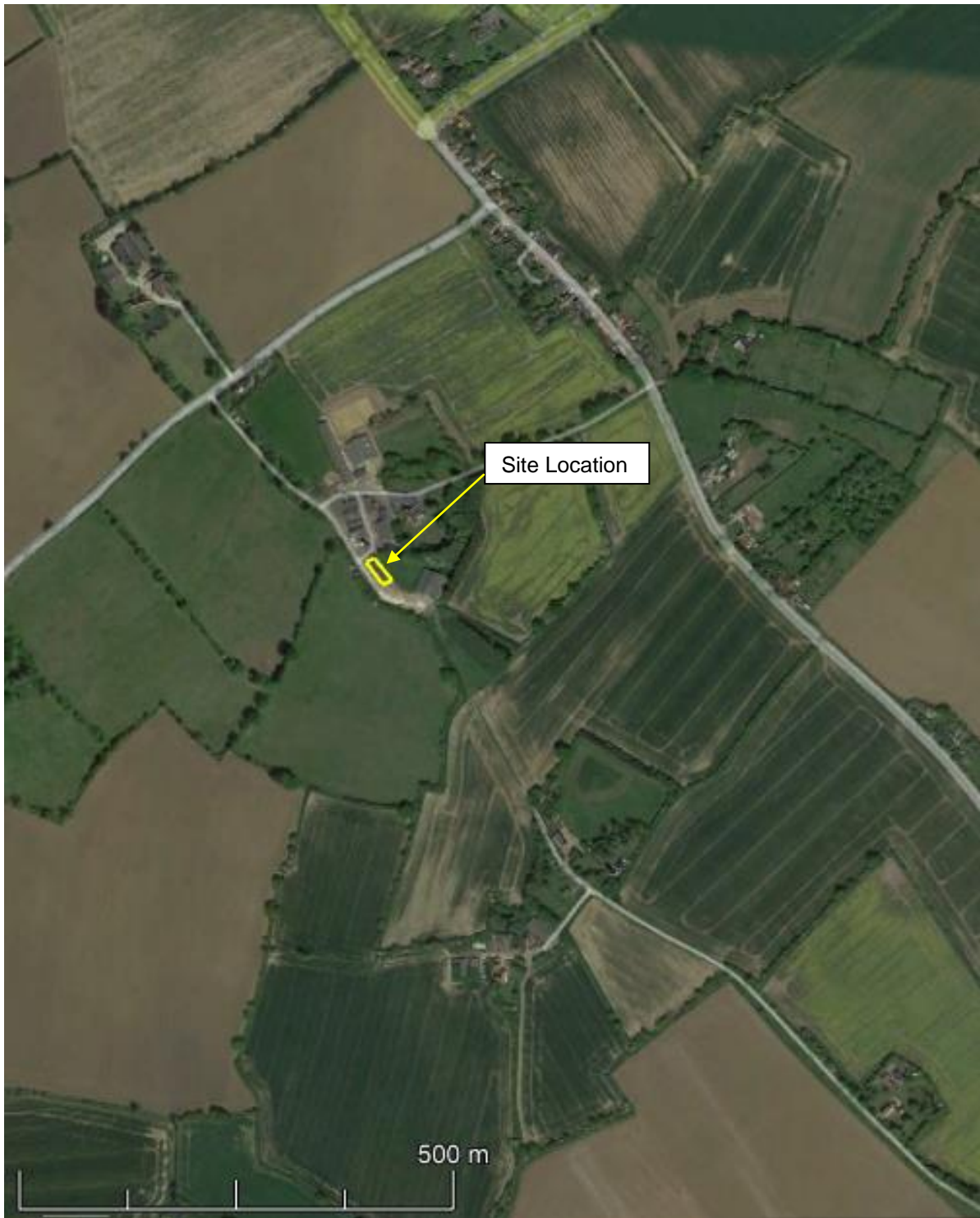


## 9 References

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## Appendix 1 – Site Location

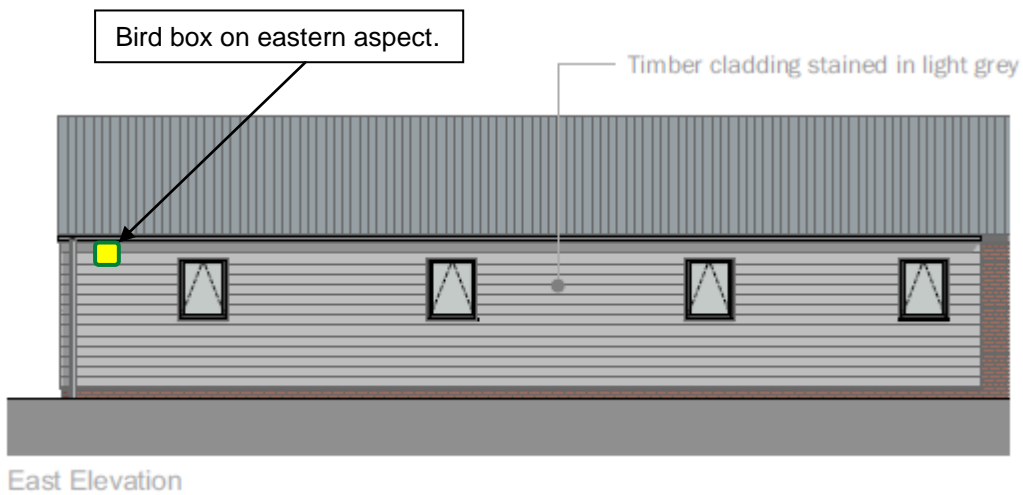
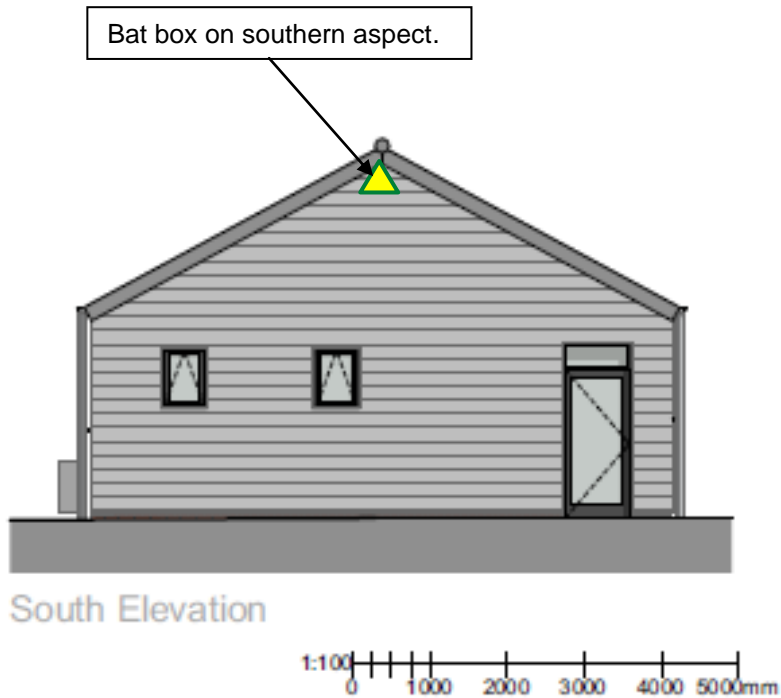


(Source Google Earth Pro: 2021)

## Appendix 2 – Bat Roost Trigger Assessment

Trigger Indices	Category	T1 Score
<b>A) Location, habitat and environmental context</b>		
T1: General location	Intensive farmland	0.67
T2: Foraging opportunities within 250 m	Moderate	0.67
T3: Foraging opportunities within 5 km	Moderate	0.67
T4: Commuting opportunities	Moderate	0.67
T5: Cover in vicinity of structure	Poor	0.33
T6: External lighting in vicinity of structure	None	1
T7: Number and character of nearby buildings	Good variety of old buildings	1
T8: Structure/building exposure	Moderate	0.67
<b>B) Exterior features and characteristics of building</b>		
T9: Structure/building age	Intermediate	0.67
T10: Size of Building	Small size	0.33
T11: Main wall construction material	Modern	0.33
T12: Condition of wall/roof pointing/render	Some gaps, cracks or crevices noted	0.67
T13: Condition of lintel/door frame features	Some gaps, cracks or crevices noted	0.67
T14: Condition of eaves/soffits/bargeboards	Tightly sealed	0.33
T15: Condition of weatherboarding/cladding	Tightly sealed	0.33
T16: Condition of lead flashing	No flashing	0.2
T17: Roofing material	Corrugated metal/asbestos/similar	0.33
T18: Bat access potential	Substantial holes or collapsed roof	0.2
<b>C) Interior features and characteristics of building</b>		
T19: Character of roof void/roof space	Open roof space	0.33
T20: Character and condition of roof supports	Tightly sealed modern timbers/supports	0.33
T21: Presence and extent of cobwebbing	Some cobwebs	0.67
T22: Presence and condition of roof lining	Unlined or cavity filled with insulation	0.2
T23: Light levels in roof void/space	Light	0.33
T24: Protection from weather/wind	Draughty and exposed	0.33
T25: Temperature regime	Variety of temperatures	1
T26: Level of (human, animal) disturbance	Moderate	0.67
T27: Flight Space	Good	1
T28: Flying Access (Horseshoe bats)	N/A	0.33
<b>TRIGGER INDEX SCORE =</b>		<b>0.47</b>
<b>BAT ROOST SUITABILITY =</b>		<b>NEGLECTIBLE</b>

## Appendix 3 – Enhancements: suggested locations



*Drawings courtesy of Brown & Co, 2021*