

# HalpinRobbins

Ecology & Environmental Services

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## Ecological Impact Assessment

The Old Rectory, Clyst St Lawrence, Cullompton, Devon, EX15 2NW  
ST026000



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## EXECUTIVE SUMMARY

HalpinRobbins Limited was commissioned to undertake an Ecological Impact Assessment of the detached property The Old Rectory, located in Clyst St Lawrence, Cullompton in support of a planning application to re-roof both sections of the building, as the original roof structure is in a state of disrepair.

The following surveys have been undertaken at the site; Ecological Building Survey and Bat Dusk-Emergence Surveys.

The table below summarises the proposed impacts of the development and the recommended mitigation, compensation and enhancement measures.

Ecological Feature	Potential Effect	Significance in the absence of mitigation	Mitigation/Compensation and Enhancement	Residual Effect
Statutory Designated Sites	None	N/A	-	Negligible.
Birds	Damage/destruction of nests during works.	Moderate adverse impact at a site level.	Sensitive timing of works.  Nesting opportunities to be provided as enhancement.	Negligible.
Bats	Killing, damage and disturbance to common pipistrelle and serotine day roost.	Major adverse impact at a local level.	Works to be carried out under an EPSL.  Sensitive timing of works.  Works to be carried out with an ECoW present and toolbox talk prior to works.  Roosts retained and enhanced.	Negligible.

## **1 INTRODUCTION**

### **1.1 Background and Purpose of Survey**

HalpinRobbins Limited was commissioned to undertake an Ecological Impact Assessment of The Old Rectory, located in Clyst St Lawrence, Cullompton, Devon in support of a planning application to re-roof both sections of the building, as the original roof structure across both sections are in a state of disrepair.

This report has been prepared by Sophia Priddle, Ecologist who has fifteen years ecological consultancy experience and holds survey licences for bats, dormice and great crested newt.

The methodology used for the assessment has been designed to examine the ecology of the site based on a field survey and an appraisal of the surrounding biodiversity using data obtained from a variety of sources to meet the following objectives:

- Establish the ecological baseline of the site by describing existing habitats
- Identify and describe all potentially significant ecological effects associated with the proposed development
- Identify and describe the mitigation and compensation measures required to ensure compliance with nature conservation legislation and address the potentially significant ecological effects
- Identify ecological enhancement measures appropriate to the project

Nature conservation legislation and policies relevant to the project are provided in Appendix C.

### **1.2 Site Location and Description**

The development site is centred upon Ordnance Survey (O.S.) Grid Reference ST026000 within the village of Clyst St Lawrence c.10km south of Cullompton, Devon. The location of the site is shown at Figure 1, Appendix A.

The site comprises a listed detached property set within well managed ornamental gardens. The property comprises two sections, a larger Georgian section and a Tudor section, each section contains a large loft void. The property is constructed from a range of materials including cob, stone and brick.

### **1.3 Proposed Development**

The client is seeking planning permission for the re-roof of both sections of the building, as the original roof structure across both sections are in a state of disrepair. Design plans are

being drafted however plans require that both sections of the property will be re-roofed in full, an indicative drawing is shown at Figures 6 and 7 in Appendix A.

#### **1.4 Previous Ecological Surveys**

Previous ecological surveys conducted in 2012 (Acorn Ecology) and 2014 (Blackdown Environmental) comprised Ecological Building Surveys and Dusk Emergence Surveys. These surveys assessed the Old Rectory as supporting a common pipistrelle *Pipistrellus pipistrellus* (19no.) maternity roost. It was noted that although published data indicates maternity roosts of common pipistrelle bats usually comprises 50-100 bats, maternity roosts may occur with smaller numbers of bats and the maximum number of common pipistrelle (19) was taken from a single dusk emergence survey conducted in August 2014 only. Both Ecological Building Surveys identified droppings characteristic of serotine *Eptesicus serotinus* and lesser horseshoe bats *Rhinolophus hipposideros*; neither of which were identified in the dusk emergence survey in 2014. No large openings which could provide fly-in access preferred by lesser horseshoe bats were identified during the surveys, therefore it is considered possible that past roofing repairs may have closed previous fly-in access points.

This survey report aims to update these findings and incorporates recommendations from the previous reports to ensure the continued ecological functionality of the property.

## 2 METHODOLOGY & LIMITATIONS

### 2.1 *Scope and Assessment*

#### 2.1.1 *Zone of Influence*

The 'zone of influence' of a project is the area within which ecological features may be impacted by the proposed works. This may often extend beyond the site boundary due to the distance that certain species travel, the nature of the potentially affected habitats and the site's location in relation to important ecological sites.

For this assessment the following zones have been considered:

- 5km surrounding Statutory Conservation Designations relating to bats (e.g. Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI)).
- 2km surrounding other Statutory Conservation Designations and Non-Statutory sites of importance to biodiversity (e.g. Local Wildlife Sites (LWS) and Sites of Nature Conservation Importance (SNCI)).
- 2km surrounding known records of protected and notable species.
- The site and its immediate surroundings.

#### 2.1.2 *Impact Assessment*

Impact assessment has been carried out based on the outline proposals provided (detailed in Section 1.3 and shown in the Proposed Plan at Figures 6 and 7 in Appendix A) using the findings of the desk study and field surveys.

Ecological features have been scoped in and out as appropriate based on the baseline conditions of the site; i.e. what ecological features the site is likely to support, and as appropriate to the scale of the proposals.

An assessment of the potential project impacts on each ecological receptor (i.e. designated sites, protected and notable habitats and species) is provided, including the magnitude, duration and significance of the anticipated effects to each receptor. An assessment of significance has been undertaken considering the local, national and international value to ecological features as informed by the desk study.

Table 1 below includes details on how the significance has been determined.



**Table 1 – General criteria for significance**

SIGNIFICANCE	CRITERIA
<b>Major</b>	Change resulting in breaches of legislation or exceeding statutory objectives.
	Likely to impact on sites designated for national or international importance.
	Likely to affect a large-scale area or a large number of species or populations on frequent or permanent basis.
	May result in an irreversible decline or rise.
<b>Moderate</b>	Unlikely to cause a breach of legislation but likely to impact on a site of regional or local importance.
	Likely to affect a small number of species or populations on a permanent basis.
<b>Minor</b>	Likely to impact an area or feature of local interest or importance.
	Likely to have a temporary impact on a small number of species or populations or be a recoverable impact.
<b>Negligible</b>	Indiscernible impact predicted.

Where possible significant ecological effects will be avoided through careful design and application of the mitigation hierarchy:

- **Avoidance**  
Seek options that avoid harm to ecological features.
- **Mitigation**  
Adverse effects should be avoided or minimised through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed. Mitigation is relevant for negative impacts assessed as being potentially significant (before mitigation) or where required to ensure compliance with legislation.
- **Compensation**  
Where there are significant adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures. Compensation is relevant for negative impacts assessed as being significant or where required to ensure compliance with legislation.
- **Enhancements**  
Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

## 2.2 Desk Study

Biological records from the Devon Biodiversity Records Centre (DBRC) were obtained comprising bat species records within a 2km radius of the site.

Data search results only give an indication of species presence in a location. The absence of recent records for certain species in an area may be due to low levels of biological recording or the non-submission of records, rather than absence. Many species records are also at low

geographical resolution and do not indicate their exact location and often provide little detail about abundance.

Web-based DEFRA resource Multi-Agency Geographic Information for the Countryside (MAGIC) was consulted to identify Statutory Nature Conservation Designations within a 2km radius of the site surveyed, and for Statutory sites designated for bats within a 5km radius of the site. A search for granted European Protected Species Licences (EPSLs) within a 2km radius relating to bats was also undertaken.

A review of the Mid Devon planning portal was undertaken in September 2022 to identify any previous applications and ecological findings relevant to the current proposals.

### **2.3 Ecological Building Survey**

The structure was inspected both externally and internally using a surveyor's ladder, high powered torch, bat detector and video endoscope where necessary to assess potential for the structure to hold nesting birds and roosting bats.

Evidence of nesting birds could include feathers, nesting material, eggs and potentially pellets. Evidence of roosting bats could include live animals, carcasses, droppings and feeding remains. A rating of between negligible and high suitability was assigned to the structure based on their likelihood of supporting roosting bats. If a bat was identified in a structure during the survey the structure was recorded as a confirmed roost (Collins, 2016).

- **Negligible:** Negligible habitat features to be used by roosting bats.
- **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 and/or suitable surrounding habitat to be used on a regular basis by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
- **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.
- **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.

Several bat species roost in very small crevices, such as the space between the roofing tiles and gaps in wooden trusses, therefore it is possible that individual bats and bat droppings

may have been missed. In addition, bird nests in concealed locations may not have been visible to the surveyor.

Identification of species based on dropping morphology is challenging and does not provide a definitive identification of species.

A full inspection of the roof void could not be undertaken for fresh droppings due to the fragility of the roof structure, especially within the Tudor section of the house.

## 2.4 Bat Surveys

### 2.4.1 Dusk Emergence surveys

In accordance with the Bat Conservation Trust Good Practice Guidelines for Bat Surveys (Collins 2016), the structure was assessed as having a confirmed bat roost. The structure was subject to three dusk emergence surveys/ dawn re-entry surveys during June and July 2022 to identify and characterise roosts.

Bat survey recording equipment included Anabat Walkabout, Batbox Duet, EM Touch, Batlogger, and Canon Xa11, Canon Xa40 Infrared Cameras. Cameras used have low light level capabilities, are set up on a tripod and accompanied by at least two 96 LED infrared lamps which are directed at the building to be surveyed. Cameras and lights are powered by rechargeable power packs.

Analysis of recorded bat echolocation calls was undertaken using Analook software in Microsoft Windows. Echolocation calls were assigned to bat species by comparison of sonograms with a library of known bat calls and reference of echolocation call parameters. Where calls could not be assigned to a species, identification to genus level was made.

When assigning calls to pipistrelle species, calls with a peak frequency of 42-48KHz were assigned to common pipistrelle, calls with a peak frequency of >48-52KHz assigned as *Pipistrellus* spp. and calls with a peak frequency of >52KHz were assigned to soprano pipistrelle *Pipistrellus pygmaeus*.

Surveys were carried out at an optimal time of year (Collins, 2016) weather conditions were considered suitable for conducting robust data collection during emergence surveys with temperatures suitable for bat activity to be recorded. Bat activity was noted throughout the surveys.

Bat surveys comprised dusk emergence surveys only, and no dawn re-entry surveys. This is due to the use of Night Vision Aids (infrared cameras and lights) which made identifying access points, quiet and later emerging bats less challenging, therefore a pre-dawn re-entry survey

was not considered necessary to complete the roost characterisation surveys (Bat Conservation Trust, Interim Guidance Note, May 2022).

## **2.5 Personnel**

Table B1 at Appendix B provides the personnel and survey dates for the assessments carried out at the site.

### 3 BASELINE ECOLOGICAL CONDITIONS

#### 3.1 Relevant Ecological Information from Planning Portal

A review of the Mid Devon planning portal did not identify any applications of ecological relevance to the project.

#### 3.2 Designated Sites

##### 3.2.1 Statutory Designated Sites

No Statutory Nature Conservation Designations were identified within or adjacent to the site and no Statutory Nature Conservation Designations relating to bats were identified within 5km of the site.

#### 3.3 Ecological Building Survey

The Old Rectory is constructed of a range of materials including cob, stone and brick. The Old Rectory has two sections, a Tudor section (eastern) and a Georgian section (western).

##### Tudor Section

The Tudor section is approximately 23m in length and 9m in width. The pitched roof is constructed of unlined natural slate tiles with a bitumen based covering. The loft void, described at Loft Void 1, varies in height but has an average height of 1.5m to the ridge. In addition to the main loft space, an eaves storage space is present on the northern roof pitch, c. 10m in length which extends directly into the main loft space. Glass wool loft insulation is present, installed in 2007.

##### Georgian Section

The Georgian section is c. 14m in length and 13m wide. The pitched roof is hipped and constructed of natural slate, parts of which are lined with bitumen roofing felt. The loft void, described at Loft Void 2, is c. 2.2m to the ridge. The main ridge runs east/west alignment on its southern elevation and two parallel ridges running north of the main. Glass wool loft insulation is present, installed in 2007.

#### 3.4 Birds

The building provides suitable nesting habitat for birds. Historical evidence of nesting by house martin *Delichon urbicum* was noted on the northern elevation at wall tops, 3 historical nesting locations were identified (Target Note 1, Figure 2 at Appendix A). The site is also

suitable to support other species which nest within buildings, such as house sparrow *Passer domesticus*. The building therefore has potential be used during future nesting seasons.

### 3.5 Bats

A total of 46 records of bats was identified within a 2km radius of the site. Species recorded include barbastelle *Barbastella barbastellus* (1), Natterer’s bat *Myotis nattereri* (1), whiskered bat *Myotis mystacinus* (1), brown long-eared bat *Plecotus auritus* (7), common pipistrelle (7), greater horseshoe bat *Rhinolophus ferrumequinum* (2), lesser horseshoe bat (7), serotine (2), unidentified long-eared species *Plecotus sp.* (5) and unidentified pipistrelle species *Pipistrellus sp.* (6).

The building has been subject to previous ecological assessments, comprising internal inspections and dusk emergence surveys (Acorn Ecology 2012 & Blackdown Environmental 2014). These historical surveys identified the property as supporting bat roosts within both the Tudor and the Georgian sections of the property and was assessed as a likely common pipistrelle breeding roost as well as occasional roost for serotine and lesser horseshoe bat.

A further 14 records of granted European Protected Species Licences (EPSLs) for bats were identified within a 5km radius including Natterer’s bat, whiskered bat, brown long-eared bat, common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus*, lesser horseshoe and serotine. The closest record is located c.600m to the northeast concerning common pipistrelle.

#### 3.5.1 Dusk Emergence Bat Surveys

Bats have been identified roosting within both loft voids of the Old Rectory. A maximum count of 5 common pipistrelle and 1 serotine were recorded during 2022 surveys. The roosts have been characterised as common pipistrelle and serotine day roost. Survey results are shown in Tables 2-4 below.

**Table 2. Dusk emergence survey results – 23 June 2022**

<b>SURVEY TYPE:</b>	Dusk Emergence		
<b>DATE:</b>	23 June 2022		
<b>SUNSET TIME:</b>	21:31		
<b>START TIME:</b>	21:16	<b>FINISH TIME:</b>	23:00
<b>LEAD SURVEYOR*:</b>	Sophia Priddle	<b>EQUIPMENT:</b>	Batlogger, Anabat Walkabout, Echo Meter 3+, Echo Meter Touch, IR Cameras
<b>TEMPERATURE</b>	<b>Start:</b> 19.0		

<b>(°c):</b>		<b>End: 17.0</b>			
<b>RAIN:</b>		<b>Start: Dry</b>	<b>WIND</b> <b>(Beaufort):</b>	<b>Start: 0</b>	<b>CLOUD</b> <b>(%):</b>
		<b>End: Light Showers</b>		<b>End: 0</b>	
<b>Time</b>	<b>Bat Species (No.)</b>	<b>Figure 3 Ref.</b>	<b>Behaviour</b>		
21:34	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:43	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:44	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
22:08	Pipistrelle species (1)	2	Bat re-entered behind soffit, left of the apex on the eastern elevation.		
22:14	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
23:03	*Serotine (1)	3	Emerged from behind gutter on the northern elevation of the western section.		
<b>NOTES</b>	<p>*Bat identified as serotine through size and flight pattern recorded on camera. Additionally historical aggregations of serotine droppings adjacent to emergence location. Sound files also recorded during the survey for this species.</p> <p>A total of 3 common pipistrelles emerged from behind soffit, left of the apex on the eastern elevation of the eastern section (Tudor). A total of 1 serotine emerged from behind gutter on the northern elevation of the western section (Georgian).</p> <p>Bat activity during the survey was considered moderate, with passes by common pipistrelle, soprano pipistrelle, <i>Myotis</i>, noctule and serotine bats recorded.</p>				

\*Full surveyor details, including licensing information is shown at Table B1, Appendix B.

**Table 3. Dusk emergence survey results – 7 July 2022**

<b>SURVEY TYPE:</b>		Dusk Emergence			
<b>DATE:</b>		7 July 2022			
<b>SUNSET TIME:</b>		21:31			
<b>START TIME:</b>		21:16	<b>FINISH TIME:</b>	23:00	
<b>LEAD SURVEYOR*:</b>		Sophia Priddle	<b>EQUIPMENT:</b>	Batlogger, Anabat walkabout, Anabat Express, IR Cameras	
<b>TEMPERATURE (°c):</b>		<b>Start:</b> 20.2			
		<b>End:</b> 16.9			
<b>RAIN:</b>		<b>Start:</b> Dry	<b>WIND</b>	<b>Start:</b> 0	<b>CLOUD</b>
		<b>End:</b> Dry	<b>(Beaufort):</b>	<b>End:</b> 0-1	<b>(%):</b>
					<b>Start:</b> 0%
					<b>End:</b> 0%
Time	Bat Species (No.)	Figure 4 Ref.	Behaviour		
21:50	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:50	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:54	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:55	Pipistrelle species (1)	2	Bat entered behind soffit, left of the apex on the eastern elevation.		
21:55	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:59	Pipistrelle species (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
22:22	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		



22:40	Common pipistrelle	2	Bat entered behind soffit, left of the apex on the eastern elevation.
22:41	Common pipistrelle	1	Bat entered behind soffit, left of the apex on the eastern elevation.
<b>NOTES</b>	Bat activity during the survey was considered moderate. A total of 5 bats emerged from behind a soffit, all pipistrelle species. Pipistrelle species were also observed re-entering. Foraging bat were observed in the trees (to the east of the eastern elevation) and around the garden (to the south of the eastern elevation). Other bat species passes recorded were common pipistrelle, soprano pipistrelle and noctule.		

\*Full surveyor details, including licensing information is shown at Table B1, Appendix B.

**Table 4. Dusk emergence survey results – 26 July 2022**

<b>SURVEY TYPE:</b>		Dusk Emergence			
<b>DATE:</b>		26 July 2022			
<b>SUNSET TIME:</b>		21:08			
<b>START TIME:</b>		20:55	<b>FINISH TIME:</b>	22:38	
<b>LEAD SURVEYOR*:</b>		Sophia Priddle	<b>EQUIPMENT:</b>	Batlogger, Anabat walkabout, Anabat Express, SM2, IR Cameras	
<b>TEMPERATURE (°c):</b>		<b>Start:</b> 18.0			
		<b>End:</b> 10.0			
<b>RAIN:</b>		<b>Start:</b> Dry	<b>WIND</b>	<b>Start:</b> 0	<b>CLOUD</b>
		<b>End:</b> Dry	<b>(Beaufort):</b>	<b>End:</b> 0	<b>(%):</b>
					<b>Start:</b> 0%
					<b>End:</b> 0%
<b>Time</b>	<b>Bat Species (No.)</b>	<b>Figure 5 Ref.</b>	<b>Behaviour</b>		
21:28	No sound file* (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		
21:35	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.		

21:38	Common pipistrelle (1)	1	Emerged from behind soffit, left of the apex on the eastern elevation.
22:37	No sound file* (1)	2	Emerged from behind soffit, left of the apex on the eastern elevation.
<b>NOTES</b>	<p>* Most likely common pipistrelle, based on previous results and on-site observations.</p> <p>Bat activity was moderate with the majority of activity recorded around garden prior to 21:45.</p>		

\*Full surveyor details, including licensing information is shown at Table B1, Appendix B.

## **4 ASSESSMENT OF EFFECTS, MITIGATION AND COMPENSATION MEASURES**

The mitigation and compensation recommendations provided are based on the principles of established best practice guidelines set out by the Chartered Institute for Ecology and Environmental Management (CIEEM), the local planning authority and other relevant organisations. Where applicable, the cumulative effects potentially arising from other developments are discussed in this section.

A Biodiversity Mitigation and Enhancement Plan has been produced showing the measures detailed below, see Figures 6 and 7, Appendix A.

### **4.1 Designated Sites**

#### **4.1.1 Potential Impacts**

There are no designated sites that could be affected by the proposals.

### **4.2 Birds**

#### **4.2.1 Potential Impacts**

Roof removal and construction works will impact house martins nesting at wall tops around the building. There is high potential to damage/ destroy the nests of wild birds, resulting in a moderate adverse impact at a site level.

#### **4.2.2 Mitigation and Compensation Measures**

The following mitigation measures will be incorporated to avoid, mitigate and compensate the identified impacts to birds:

- Works which have potential to impact nesting birds (i.e. construction works to wall tops and roof replacement) must be undertaken outside of the main bird nesting season (i.e. avoiding the period March to mid-September). If works cannot be timed sensitively, a check by an ecologist for nesting birds the day before works are due to commence will be required. Any active bird nests identified will be left in situ until the young have fully fledged.

#### **4.2.3 Residual Effects**

The above measures will address the anticipated impacts of the proposals to birds; there are no expected residual effects.

## 4.3 Bats

### 4.3.1 Potential Impacts

The Old Rectory has been identified as supporting day roosts for serotine and common pipistrelle, which may have been a historic common pipistrelle maternity roost.

In addition to the above results, ecological building inspection surveys identified droppings characteristic of lesser horseshoe bats. This species was not identified emerging during 2014 or 2022, however due regard should still be given for lesser horseshoe bats.

Maternity roosts and day roosts for common and widespread bats are considered to be of moderate conservation significance (English Nature 2012 / CIEEM, 2021); the potential damage and disturbance through works is anticipated to result in a major adverse impact at a local level.

Plans are to replace the roof and retain the existing bat access locations within the property post completion allowing continued ecological functionality of the roost. Potential impacts to bat species therefore are from disturbance, killing/injuring and damage to roosts during works, resulting in a major negative impact at a local level.

### 4.3.2 Mitigation and Compensation Measures

The following mitigation measures will be incorporated to avoid, mitigate and compensate the identified impacts to bats:

- A European Protected Species Licence (EPSL) from Natural England will be required to allow the removal of the roof to be undertaken lawfully. Licensable works will be overseen by an ecologist as per the licence conditions.
- The property has features that could be utilised by bats during the winter, the bat hibernation period (November to March) should be avoided to ensure there is no harm to bats when they are most vulnerable and unable to move from harm's way. Licensable works should therefore be scheduled between April and October.
- The roof will be replaced with natural slate as has previously been used, where lining is to be replaced this will need to be done using a bitumen-based roof liner (e.g. Type 1F). Breathable Roofing Membranes (BRMs) will not be used as the fibrous material in these can cause bat species to become entangled. Where possible some existing wooden timbers should be retained, to be directed by the building contractor and on-site ecologist during works.

- Compensatory bat roost provision suitable for common pipistrelle will be provided within Loft Void 1 (Tudor section) to ensure any roosting locations lost during roof repairs are compensated. Two wooden wedge-shaped bat boxes (e.g. Eco Kent Bat Box, available from [www.nhbs.com](http://www.nhbs.com) or similar design) will be attached to the apex of principle rafters/beams.
- Compensatory bat roost provision suitable for serotine will be provided within Loft Void 2 (Georgian section) to ensure any roosting locations lost during roof repairs are compensated. A single bat box suitable for serotine (e.g. Schwegler Summer and Winter Bat Roost 1WQ, available from [www.nhbs.com](http://www.nhbs.com) or similar design) will be attached to the internal chimney.
- Bat access for common pipistrelle at wall tops under eaves on the eastern gable to Loft Void 1 (Tudor section) will be retained by ensuring that a gap at least 2.5cm deep and a minimum of 30cm width remains.
- Bat access features to allow bats to access roosting spaces between the tiles, lining and battens as well as the roof voids where bats have been recorded roosting within the voids, will be provided post works. These will be created through folded lead and will total two roof tile access points on each roof face on each void (Loft Void 1 (Tudor) and Loft Void 2 (Georgian)), with the dimensions: 50mm width x 30mm height. These will be located approximately 50cm below ridge height. Roof linings will be removed behind to allow bats access into the loft voids.
- Two bat boxes will be installed within trees within the grounds of the property prior to the start of licensable works to provide a temporary roosting space for bats if they are found during works. The bat boxes will be installed at a height of at least 3m above ground level on a south/ southwest aspect. One will comprise a cavity suitable for use by serotine bats (e.g. 'Improved Cavity Bat Box') and one will comprise a crevice roosting space suitable for use by pipistrelle bats (e.g. 'Improved Crevice Bat Box'). Suggested bat box designs are available from [www.wildcare.com](http://www.wildcare.com) and [www.nhbs.com](http://www.nhbs.com).
- A sensitive lighting plan will be maintained to avoid disturbance to bats:
  - Any lighting units required will be the minimum amount (both in terms of lux levels and number of units) required for safe use of the site.
  - No illumination above the current lux levels or above 0.5lux to all retained surrounding hedgerows and trees to provide dark corridors through and around the site.

- Any lighting units will be angled downwards and be on a short duration motion timer.
- Lighting units will comprise a 0% upward light ratio.
- Lighting units will not be angled towards the retained bat roosts in Loft Voids 1 and 2.

#### **4.3.3 Residual Effects**

The above measures will address the anticipated impacts of the proposals to bats; there are no expected residual effects.

## 5 ENHANCEMENT MEASURES

Enhancement measures are recommendations over and above the mitigation required, which aim to enhance biodiversity in line with national and local planning policy and are deemed appropriate for the site and its proposals.

A Biodiversity Mitigation and Enhancement Plan has also been produced showing the measures detailed below, see Figure 6 and Figure 7, Appendix A.

- Measures to enhance the site for biodiversity should include the provision of nesting opportunities for bird species typical within the local area, or those which are of conservation concern identified as nesting on site. 2 x Woodstone House Martin Nester (or similar) should be positioned at wall tops on the northern elevation of the Georgian section of the building to encourage future nesting post completion of works. Dropping boards can be utilised where droppings may be an issue.
- Loft Void 2 (Georgian) should be reinstated as a roost for lesser horseshoe bats. One raised dormer entrance should be created of shaped lead to be installed on the northern hipped face of Loft Void 2 to allow access for lesser horseshoe bats. The dormer will have an entrance at least 250mm width and 150mm height, at a relatively low height to prevent venting warm air from the loft space. A baffle should be installed behind this entrance to reduce light levels and draughts within the loft.

## 6 CONCLUSIONS TABLE

**Table 5. Summary of ecological mitigation, compensation and enhancement measures for the site: The Old Rectory.**

Ecological Feature	Potential Effect	Significance in the absence of mitigation	Mitigation/Compensation and Enhancement	Residual Effect
Statutory Designated Sites	None	N/A	-	Negligible.
Birds	Damage/destruction of nests during works.	Moderate adverse impact at a site level.	Sensitive timing of works.  Nesting opportunities to be provided as enhancement.	Negligible.
Bats	Killing, damage and disturbance to common pipistrelle and serotine day roost.	Major adverse impact at a local level.	Works to be carried out under an EPSL.  Sensitive timing of works.  Works to be carried out with an ECoW present and toolbox talk prior to works.  Roost retained and enhanced.	Negligible.



## 7 REFERENCES

Acorn Ecology, 2012. *Ecological Survey Report, The Old Rectory*. November 2012.

Bat Conservation Trust, Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK: Bats and the Built Environment Series.

Bat Conservation Trust, 2022. *Interim Guidance Note*. May 2022.

Blackdown Environmental, 2015. *Bat Emergence Survey Report, The Old Rectory*. January 2015.

CIEEM (2021). Bat Mitigation Guidelines Beta Version, June 2021.

Collins, J (2016). Bat Surveys – Good Practice Guidelines, 3rd edition. Bat Conservation Trust.

Devon Biological Records Centre. Data Search. March, 2022.

## 8 SITE PHOTOS



**Plate 1.** West elevation of Georgian section.



**Plate 2.** Northern elevation where Tudor section meets Georgian section. Location of serotine emergence shown in red.



**Plate 3.** Common pipistrelle emergence location at apex, shown in red.



**Plate 4.** Southern elevation of Tudor section.



**Plate 5.** Loft void 2 (Georgian section).



**Plate 6.** Small droppings located around loft hatch (Tudor section).



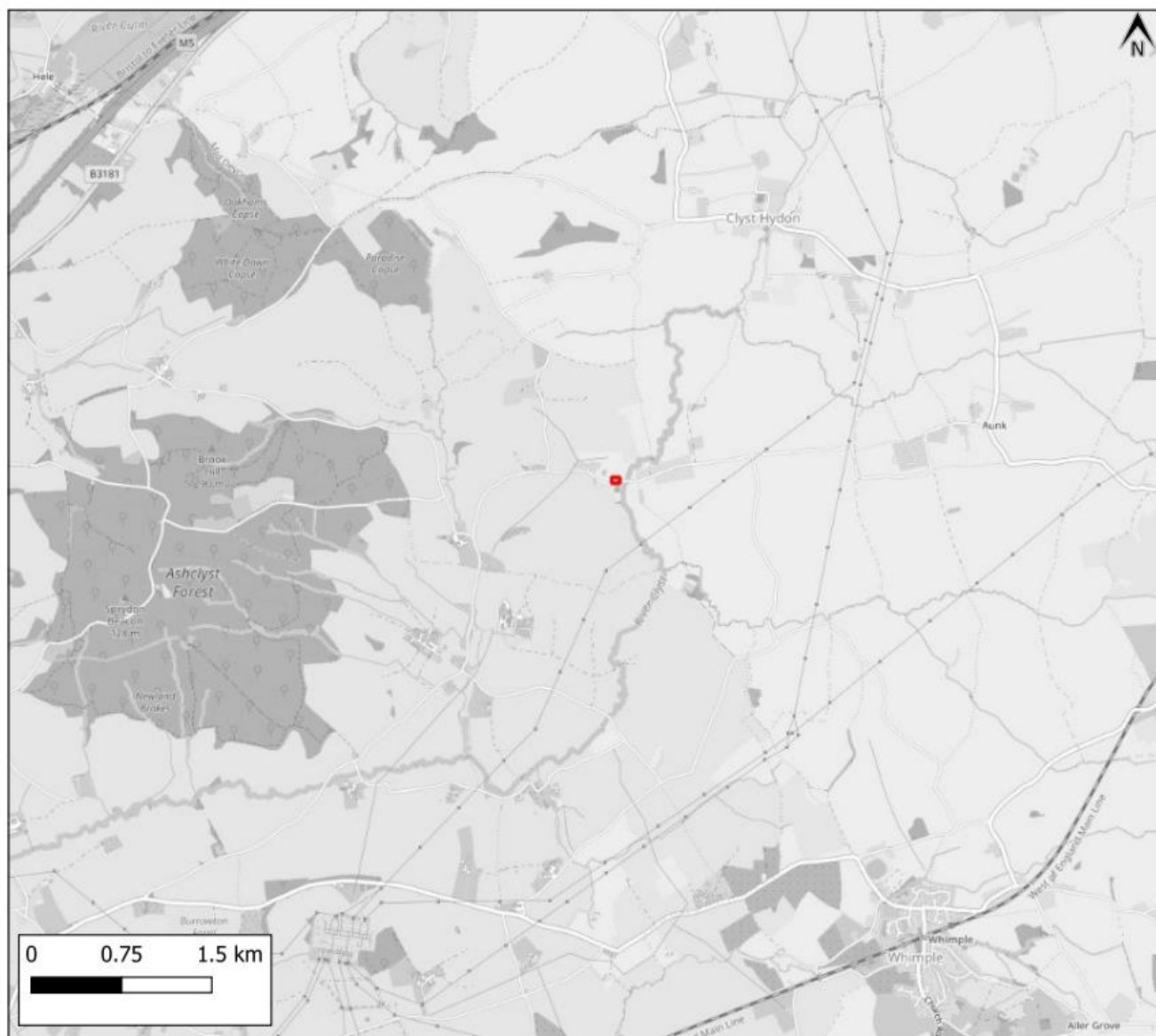
**Plate 7.** Small bat droppings (red circle).



**Plate 9.** House Martin nest on northern elevation

## APPENDIX A – FIGURES

On following pages.



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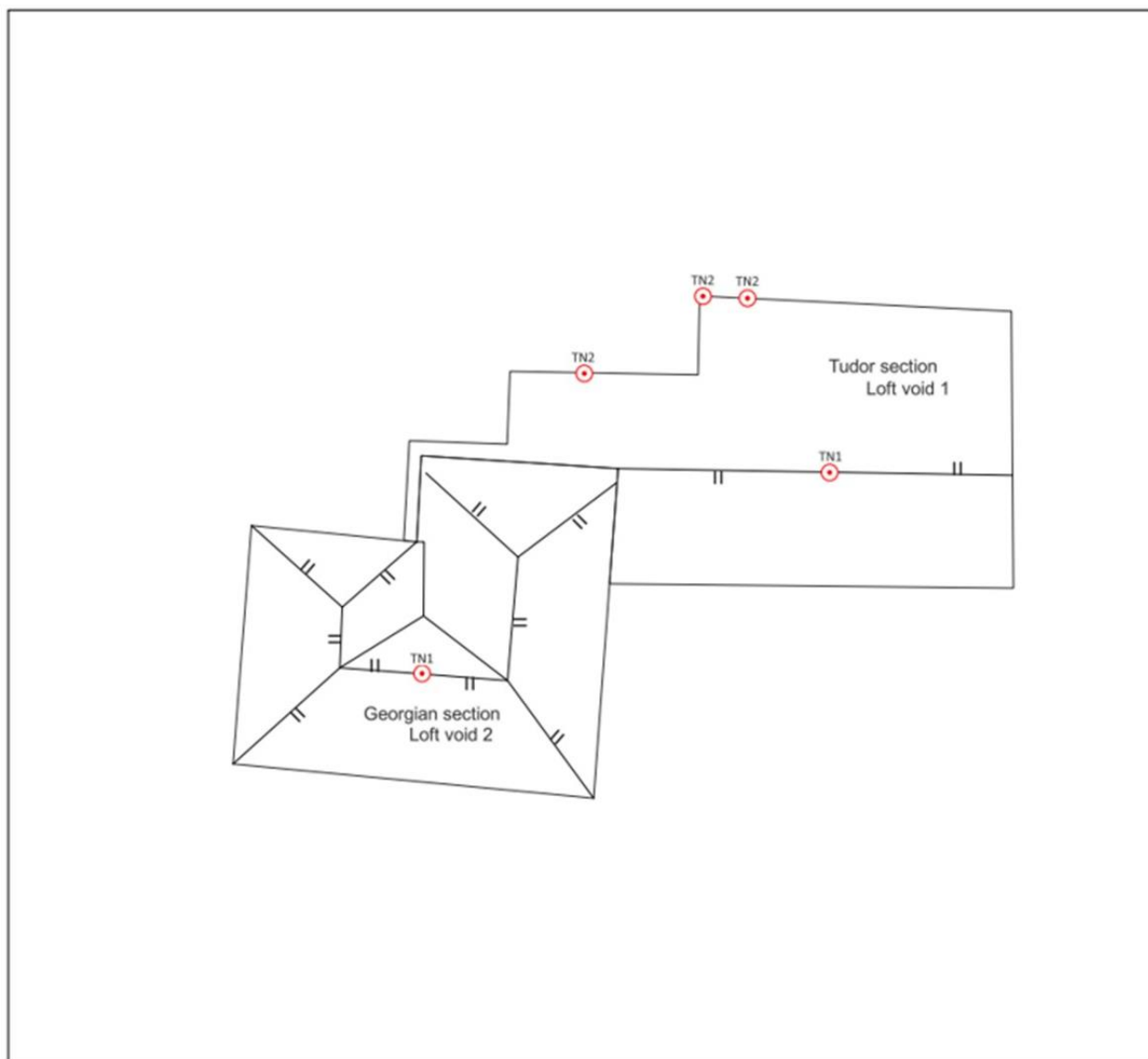
**Key:**

Site location

**Figure 1.**  
Ecological Appraisal, Old Rectory  
Site location in the wider landscape  
25/07/2022

**Project No.:** 01/108/001/02

**Date:** 25/07/2022



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**Key:**

□ Building surveyed

● Target Note:

TN1: Scattering of several hundred small and medium sized bat droppings

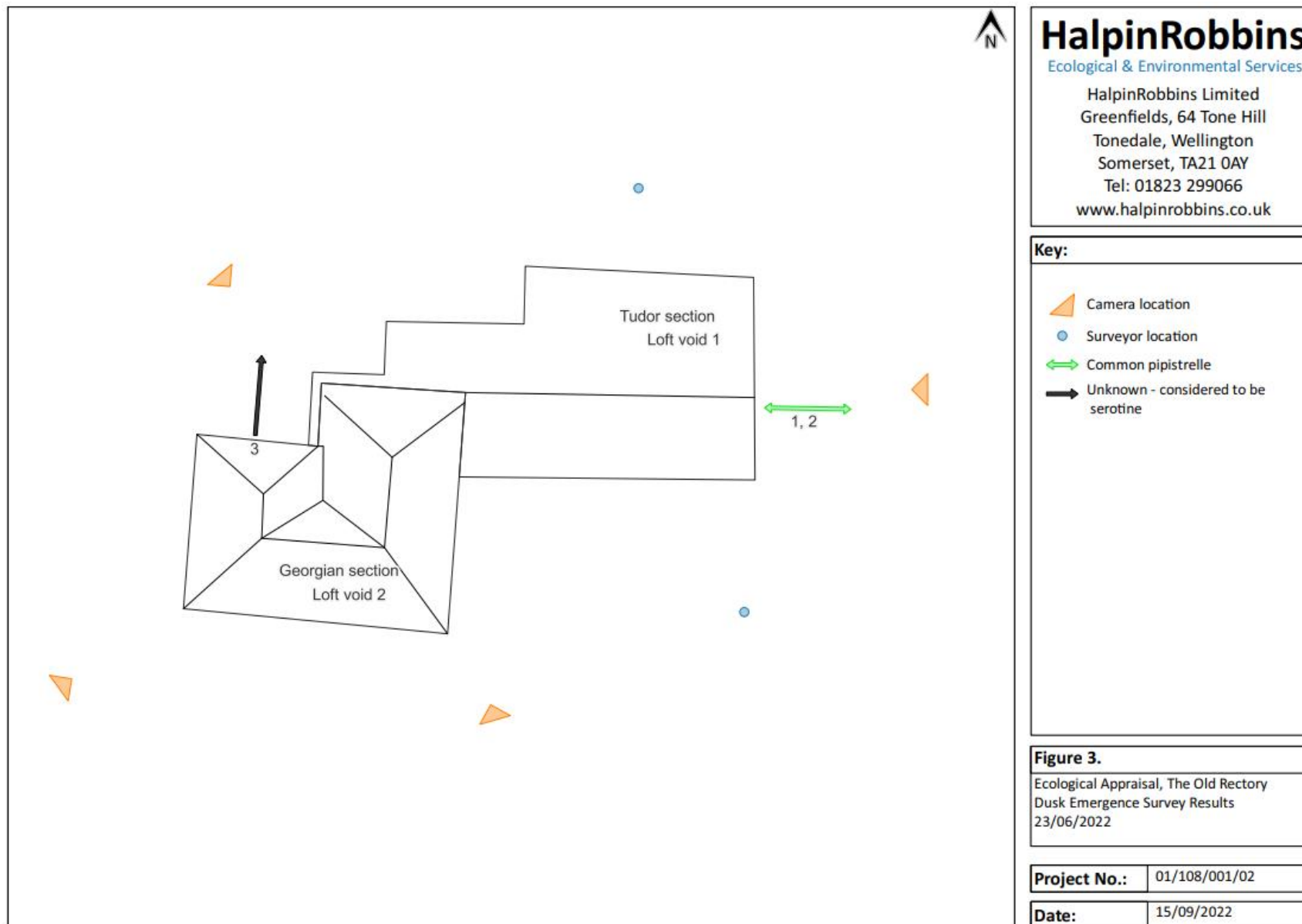
TN2: House martin nest cup

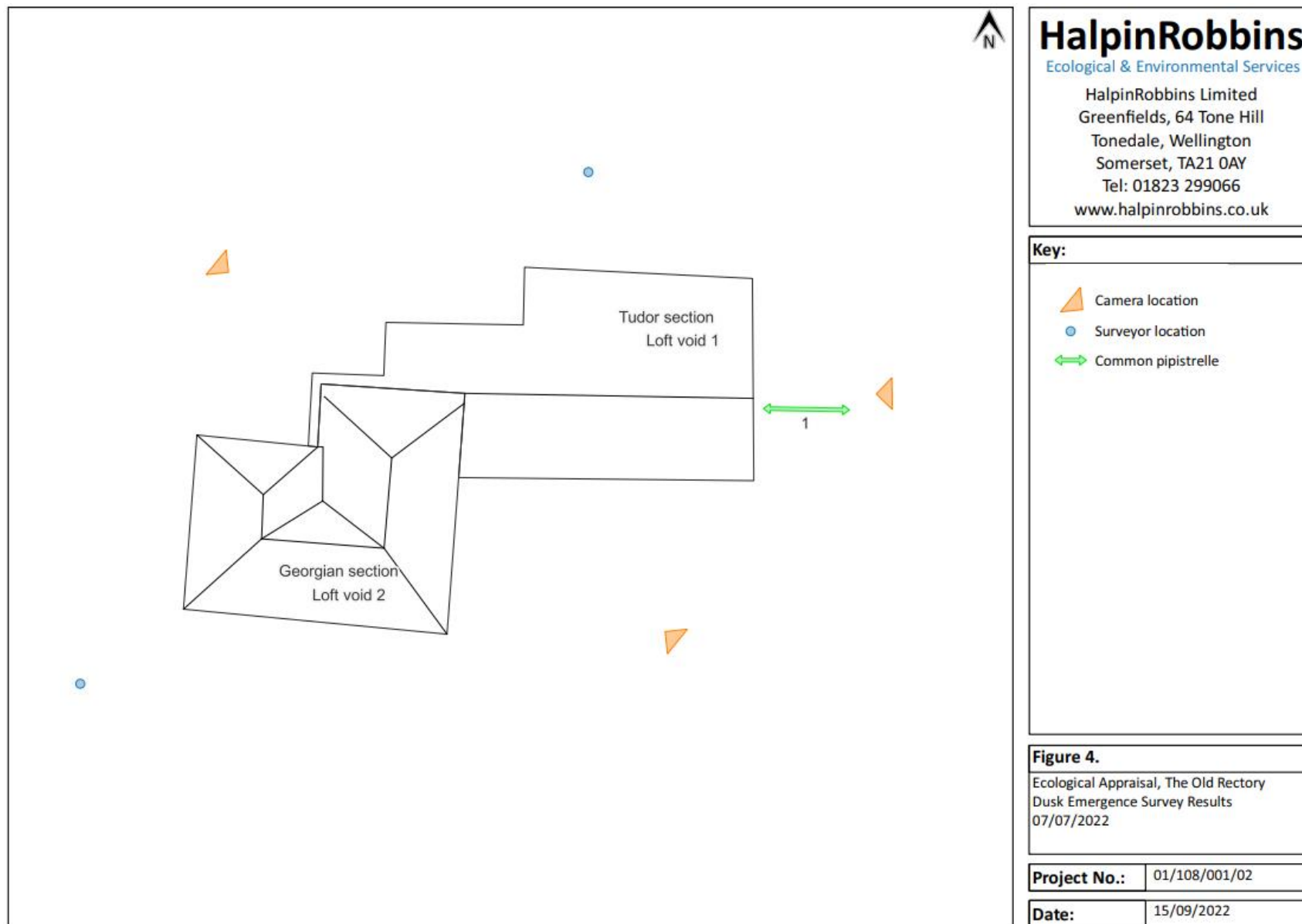
**Figure 2.**

Ecological Appraisal, The Old Rectory  
Ecological Building Survey Results  
19/04/2022

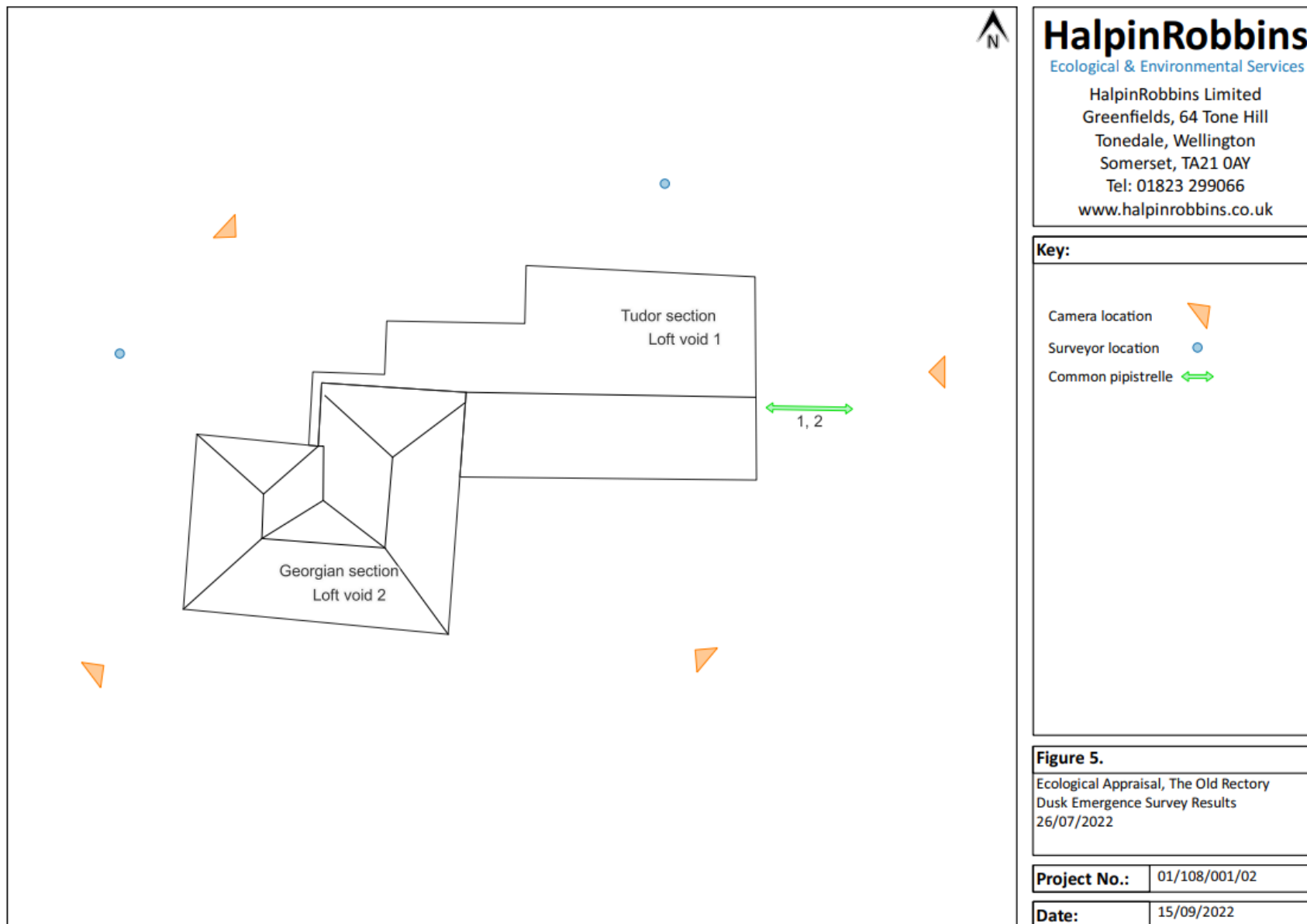
**Project No.:** 01/108/001/01

**Date:** 15/09/2022












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**Key:**

Camera location	
Surveyor location	
Common pipistrelle	

**Figure 5.**  
Ecological Appraisal, The Old Rectory  
Dusk Emergence Survey Results  
26/07/2022

<b>Project No.:</b>	01/108/001/02
<b>Date:</b>	15/09/2022

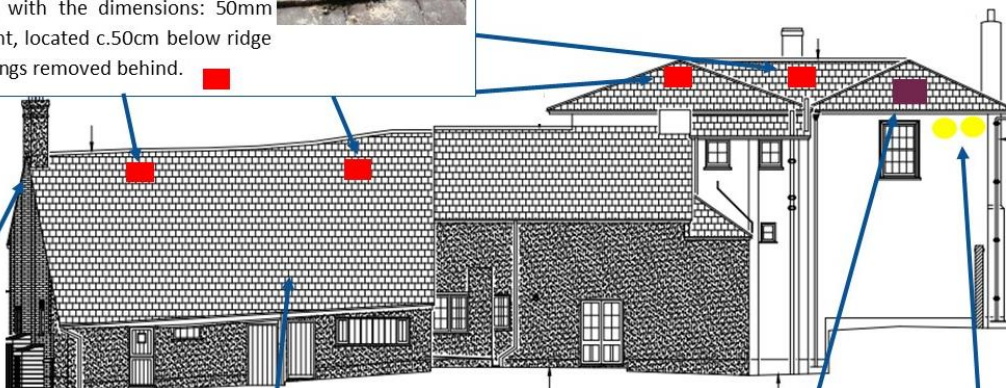
Works undertaken outside of the main bird nesting season (i.e. avoiding the period March to mid-September) or nesting bird check by an ecologist the day before works are due to commence .

The roofs will be replaced with natural slate as has previously been used, and only bitumen based roof liner (e.g. Type 1F) will be used. No Breathable Roofing Membranes.

Bat access will be created through folded lead and will total two roof tile access points on each roof face on each Loft Void (Loft Void 1 (Tudor) and Loft Void 2 (Georgian)), with the dimensions: 50mm width x 30mm height, located c.50cm below ridge height, with roof linings removed behind.



Where possible some existing wooden timbers should be retained, to be directed by the building contractor and on-site ecologist during works.



Bat access at wall tops under eaves on the eastern gable to Loft Void 1 (Tudor section) will be retained by ensuring that a gap at least 2.5cm deep and a minimum of 30cm width remains.

The dormer will have an entrance at least 250mm width and 150mm height, at a relatively low height to prevent venting warm air from the loft space. A baffle may be installed behind this entrance to reduce light levels and draughts within the loft.



Compensatory roost provision Loft Void 1 (Tudor section) will comprise two wooden wedge-shaped bat boxes attached to the apex of principle rafters/beams.



2 x Woodstone House Martin Nester (or similar) should be positioned at wall tops on the northern elevation of the Georgian section.



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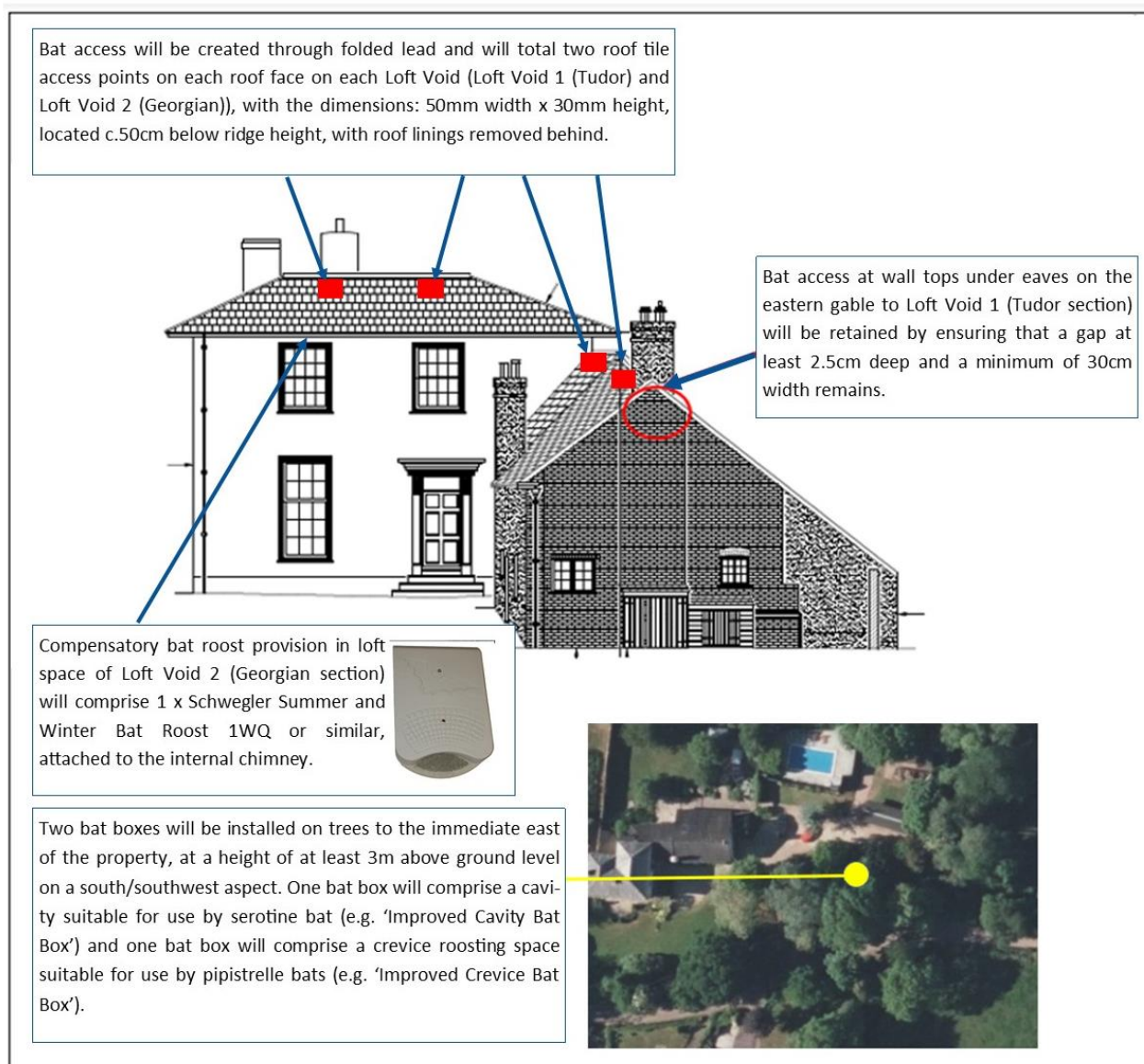
A European Protected Species Licence (EPSL) from Natural England is required. Licensable works will be undertaken between April and October and overseen by an Ecologist.

**Figure 6.**

Ecological Appraisal, The Old Rectory  
Biodiversity Mitigation and  
Enhancement Plan

**Project No.:** 01/108/001/02

**Date:** 15/09/2022



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### Key:

A sensitive lighting plan will be maintained to avoid disturbance to bats:

- Minimum amount (both in terms of lux levels and number of units) required for safe use of the site.
- No illumination above the current lux levels or above 0.5lux to all retained surrounding hedgerows and trees to provide dark corridors through and around the site.
- Angled downwards and be on a short duration motion timer and comprise a 0% upward light ratio.
- Lighting units will not be angled towards the retained bat roosts in Loft Voids 1 and 2.

### Figure 7.

Ecological Appraisal, The Old Rectory  
Biodiversity Mitigation and  
Enhancement Plan

Project No.: 01/108/001/02

Date: 15/09/2022

## APPENDIX B – SURVEY DETAILS AND RESULTS DATA

**Table B1. Details of the Personnel, Dates and Types of Survey Undertaken at the Site**

SURVEY	DATE	PERSONNEL
Ecological Building Survey	19 April 2022	Sophia Priddle (Ecologist) Natural England Bat Class Licence CL18 (Level 2) 2015-12642-CLS-CLS, Natural England Dormouse Class Licence CL10a (Level 1) 2019-41129-CLS-CLS, Natural England Great Crested Newt Class Licence CL08 (Level 1) 2020-44882-CLS-CLS.
Bat Dusk Emergence Survey	23 June 2022	Sophia Priddle Ellie Dunklee (Assistant Ecologist)
	7 July 2022	Sophia Priddle Natasha Bucknell (Assistant Ecologist)
	26 July 2022	Sophia Priddle Beth Wright (Field Surveyor)

## APPENDIX C - RELEVANT WILDLIFE LEGISLATION AND POLICIES

Ecological Feature	Legislation / Policy
Birds	Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to take, damage or destroy the nests of wild birds whilst being built or in use. Bird species also listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) receive additional protection including protection from intentional or reckless disturbance when they are nesting or rearing dependant young.
Bats	British bat species are protected under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This makes it an offence to kill or injure bats or damage or destroy a place of shelter or protection. Deliberate or reckless disturbance of bats which could affect the ability of any significant group of animals to survive, breed, rear or nurture their young may also result in an offence.