

# Bat Survey Report

**Lancaster House, Thornbury**

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## **1.0 Introduction**

- 1.1 Nicholas Pearson Associates (NPA) has been commissioned by a private homeowner (The client) to determine the presence, or likely absence of roosting bats within the material structure of Lancaster House, Thornbury (OS Grid Reference: ST 63647 89577), hereafter referred to as the 'Site'.
- 1.2 The Site is situated along Bristol Road, Thornbury, and sits directly west of Thornbury Industrial Estate. The Site comprises a late 18<sup>th</sup> – early 19<sup>th</sup> century, Grade II listed (List Entry Number: 1321128) detached house, with associated garden, parking area, and a shared drive. The Site was formally part of The NGM Trust and as such, has only been managed as a private residence for circa 2 years.
- 1.3 The Client is proposing to make modifications to the insulation and ventilation of the existing roof voids to include the installation of fascia and tile ventilators, and breathable felt. The client also proposes to raise the ceiling of the kitchen element up to the ridge and install 2 No. timber windows to roof.
- 1.4 This report sets out the results of the internal and external building inspection of Lancaster House, undertaken in 2023.

## **2.0 Methods**

### **Internal and External Building Inspection**

- 2.1 In accordance with the Bat Conservation Trusts Good Practice Guidelines (Collins, 2023), an internal and external inspection of Lancaster House was undertaken by a licensed bat worker and an assistant on the 5 December 2023.
- 2.2 The survey comprised a ground-level external assessment to identify, analyse and record features of interest within the material structure of the building which have potential to support roosting bats. All roof voids and cellars were also accessed and inspected for evidence of bats (e.g. bats, droppings). Ledges, windowsills and all other flat surfaces were checked for bat droppings during the survey. Droppings found during the survey were collected and to allow them to be sent away for DNA analysis.
- 2.3 The structure was then assigned a rating based on its potential to support roosting bats, as outlined below:
  - Roost: Bats and/or evidence of bats recorded,
  - High: one or more potential roosting sites that are obviously suitable for use by larger numbers of bats,

- Moderate: one or more potential roost sites, but unlikely to support a roost of high conservation status,
- Low: includes one or more potential roost sites that could be used opportunistically by individual bats,
- Negligible: no obvious habitat features on site likely to be used by roosting bats, but a small element of uncertainty remains, and
- None: complete absence of habitat features on site likely to be used by any roosting bats.

### **3.0 Legislation**

- 3.1 All species of British bat are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (W&CA 1981) and the Conservation of Habitat & Species Regulations 2017 (as amended), known as the Habitat Regulations.
- 3.2 This legislation affords strict protection to bat roosts and makes it an offence to disturb bats in a way which would be likely to impair their ability to, survive, breed, reproduce, rear or nurture their young, hibernate, migrate; or affect significantly the local distribution or abundance of the species to which they belong.
- 3.3 Natural England are the government's advisors for the natural environment in England and are responsible for assessing and administering European Protected Species (EPS) mitigation licences under the Habitat Regulations, providing the three licensing tests, set out in this legislation, are met. These tests are:
- Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".
  - Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".
  - Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

## 4.0 Results

### Internal and External Building Inspection

- 4.1 The weather was largely overcast, with some light spells of rain at the start of the survey.
- 4.2 Table 4.1 below describes the features of the building and their suitability for roosting bats.

**Table 4.1: Assessment of Buildings Potential to Support Roosting Bats**

Internal/external	Feature	Description/evidence
<b>External</b>		The building is of complex shape and design, and comprises a mix of single, two- and three-story elements, and a rear outhouse extending from the east of the building.
Main building		<p>The external wall of the main building features a smooth render finish, and the roof has been constructed from a mix of slate, asbestos and double roman roof tiles, with both clay and slate ridge tiles. The roof structure includes 4 No. brick constructed chimney units, and 4 No. slate and timber dormers on the east, south, and west elevations of the western wing of the building. Most of the windows and doors appear to be timber framed, and the windows include traditional 19th century casements with mullion and transom.</p> <p>On the western elevation, a decorative cast iron veranda extends the full length of the main building and a parapet with coping stones atop skirts the edge of the roof in some areas, particularly along the western elevations. A decorative stone cornice also extends from the wall directly below the parapets along the western elevations. Flood lights are fixed to the external wall on all sides of the building.</p>
	North elevation	Gap below lead flashing at chimney base. Gaps below lead flashing on small single story extension element on north elevation. Gap below lead flashing between roof tiles and parapet coping stones on northern edge of building. Large hole behind downpipe tray.
	East elevation	Uneven lead flashing below parapet on two-story element. Gaps below lead flashing on north elevation chimney unit. Linear aperture where mortar has fallen out/been removed on ridge tile near chimney unit on north elevation. Uneven roof tiles providing gaps for crevice dwelling bats. Gap behind lead flashing around irrigation hole in east facing parapet. Linear opening between facia board and render. Large open ventilation hole in external wall.
	South elevation	Linear gaps between facia board and brickwork. Linear aperture behind soffit board above large, high-level casement window. Gaps under lifted roof tiles. Large gap behind downpipe tray. Raised asbestos roof tiles. Linear gap under ridge tile where roof tile is missing. Possible access to cellar through metal grill with c. 7 cm spacings. Two holes within exposed breeze blocks above window (soffit board missing). Linear gaps between facia board and render. Double roman tiles of single-story element appear sealed and covered by moss, so unlikely suitable for bats.
	West elevation	Gaps between lead flashing and slate tile cladding on west elevation dormers. Gap between south chimney unit render and roof tiles. Several raised roof tiles. Linear gaps between render and lead flashing above and below cast-iron veranda. Gaps below lead flashing on veranda. Small gap in corner of stone cornice on south-west shoulder of building. Large gap between exposed stonework and render. Linear gaps between facia board and brickwork. Gaps under lead flashing on stone cornice.
Rear outhouse		The rear outhouse has been constructed from stone, with an open extension built from a mix of breeze block, stone and brick. The roof of the outhouse has been constructed from clay pantiles over a timber frame. The frame comprises timber rafters with bitumen felt overlay, and a single

	purlin on each slope. The open extension has been covered with corrugated asbestos cement sheets.	
	Rear outhouse	Hole behind lead flashing on south-west shoulder of outhouse. Linear opening between entrance door lintel and timber door frame. Uneven/loose pantiles across outhouse roof, particularly where ivy has encroached and colonised. Cracks in fillet of cement on south elevation where ivy has rooted. Gaps below corrugated asbestos roofing sheets on extension, yet most are sealed with cement. Gaps under lead flashing below flue pipe.
<b>Internal</b>	The internal elements comprised 4 No. roof voids and a basement with 3 No. cellar rooms.	
Roof void 1	Small, timber framed roof above kitchen element. Approx. temperature 12.1°C.	
Roof void 2	Double hipped roof on western element of building (above master bedroom). Approx. temperature 10.4°C. This roof void features 3 No. king posts with principal rafters and brace beams, and timber purlins on each face. The floor is insulated with a combination of soft insulation and Celotex insulation board. A plastic style roofing membrane was used to line the roof. A suspected bat dropping was collected from the floor of the roof void.	
Roof void 3	Roof void above bedrooms 5 and 6. Approx. temperature 13.1°C. Gable roof, with brickwork to both gable ends. Mostly timber framed with a single adapted steel rob king post, and a single brace beam on either side. The floor features a lath and plaster finish, with no insulation. The slopes of the roof were supported with double purlins with a bitumen felt underlay. Cobwebs and debris were abundant across the roof void.	
Roof void 4	A small roof void above the three-story element, accessed through a small internal hatch. No temperature recorded. The roof void features a timber frame with plastic style roofing membrane, as seen also in roof void 2.	
Basement	Access to cellar through an exterior timber hatch on the eastern elevation. A large opening was present at the front of the hatch where the timber frame had rotted/been removed. Other access points appeared to be well sealed or internal.	

## 5.0 Conclusions

- 5.1 Based on the results of the internal and external building inspection, Lancaster House is considered to offer 'High' potential to support roosting bats. and therefore, in accordance with good practice guidelines, 3 No. dusk emergence surveys are recommended. These are seasonally constrained May to August/September.
- 5.2 It is also recommend that the potential bat dropping is sent off for DNA analysis.

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## **References**

- (1) Collins, J (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4<sup>th</sup> Edition. London:  
The Bat Conservation Trust.

## **Appendix 1: Site Photos**

Photo No.	
1	 View of west elevation
2	 View of south elevation

3	 View of southern section of east elevation
4	 View of northern section of east elevation

5



North-west facing view of rear outhouse

6



View of eastern section of north elevation

7



View of western section of north elevation

8



Roof void 1

9	 A photograph showing the interior of a roof void. The ceiling consists of several wooden joists supported by vertical posts. The floor below is covered in a layer of reddish-brown mineral wool insulation.
10	 A photograph showing the interior of another roof void. This one features brick walls and a wooden joist floor. A blue tarp is visible on the floor, and there is some debris and insulation material scattered around.

11	 <p>Roof void 4</p>
12	 <p>View of cellar room 3 (see basement plan)</p>

13	 Internal view of rear outhouse	
14	 Large hole at junction of external wall and linear gaps between fascia board and stonework on west elevation	

15



Gap behind lead flashing on rear outhouse

16



Large hole behing downpipe tray on south elevation

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