Preliminary Roost Assessment for Bats

Raydale
Simonstone Lane
Ribble Valley
BB12 7NX

May 2025

Preliminary Roost Assessment for Bats

Raydale
Simonstone Lane
Ribble Valley
BB12 7NX

A report for

Tom Boyle
(of the above address)

A report by

PENNINE Ecological Glossop Ltd.
Stuart Macpherson BSc (Hons), MSc, ACIEEM
email: stuart@pennineecological.co.uk
web: www.pennineecological.co.uk
Tel: 07883438666

May 2025

Chartered Institute of Ecology and Environmental Management

25 YEARS

Arboricultural ASSOCIATION Professional Member

CONTENTS

Terms of Use

This report has been compiled by PENNINE Ecological with all reasonable skill, care, and diligence within the terms of the instruction and permissions granted by the client. The results, conclusions and recommendations of this report are proportionate and in line with the British Standard 42020:2013.

This is a technical report and does not represent legal advice/opinion.

The report is for the sole use of the commissioning client in connection with the development project described in the report, and must not be used for any other purpose, copied, re-produced, or sent to any other party other than the Local Planning Authority without the permission of PENNINE Ecological.

This report remains the property of PENNINE Ecological and cannot be relied upon until full payment has been made. PENNINE Ecological reserve the right to retract any survey reports submitted to planning where payments are outstanding.

PENNINE Ecological will retain the right to re-publish data obtained, and to forward data collected during all its ecology surveys to the local wildlife records centre.

1. INTRODUCTION

1.1 Introduction

PENNINE Ecological were commissioned by Tom Boyle (proprietor) to undertake a Preliminary Roost Assessment (PRA) for bats at a residential property named Raydale on Simonstone Lane, Ribble Valley, BB12 7NX (refer to Figure 1.1 for the building's location).

The proposals include a ground floor extension to the front and rear of the property. It was confirmed with Tom Boyle via email that the roof structure was not to be impacted on by the proposals and all works were single storey. There were internal works ongoing at the time of survey but these were restricted to bedrooms, living rooms etc.

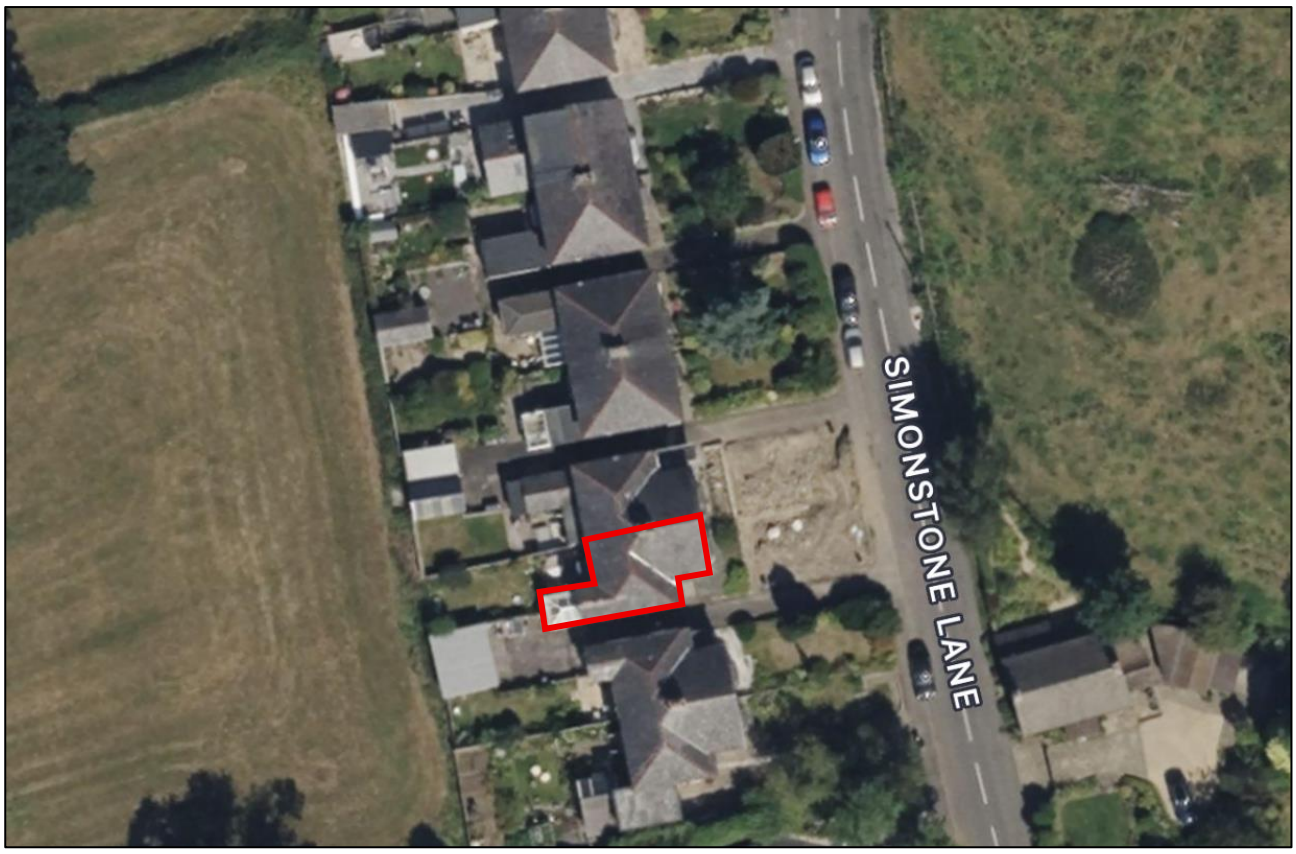


Figure 1.1 – Dwelling inspected as part of the survey.

1.2 Report Structure

The study includes the following elements:

- A desk-based search of freely available online ecological information (e.g., Defra's MAGIC mapping tool, Google Earth, Ordnance Survey mapping etc.).

- A Preliminary Roost Assessment survey and evaluation of the building to support roosting bats.
- A full evaluation of the ecological significance of the desk based and PRA results.
- Conclusions and recommendations for further survey or study if required and/or precautions when and where appropriate.

1.3 Site Location

The site is located on Simonstone Lane, approx. 3km to the north M65 motorway and 100m south of the A671 (Whalley Road). The River Calder is located 1.25km south of the site.

The surrounding landscape is dominated by a network of pastoral grassland presumed to be used for grazing livestock. To the north of the site, opposite Whalley Road are predominantly urban habitats such as roads and residential estates within Simonstone.

The central Ordnance Survey National Grid Reference[1] for the building is SD 77412 34316.

[1] Ordnance Survey National Grid reference used throughout the report.

2. BACKGROUND INFORMATION ON BATS

2.1 Background Information on Bats

a) Summary of Legislation and Planning Policy

In England, the main pieces of legislation pertaining to the protection of bats are The Conservation of Habitats and Species Regulations 2017 (as amended); the Wildlife and Countryside Act 1981 (as amended) and The Environmental Damage (Prevention and Remediation) (England) Regulations 2015.

For further information and direction to further legislation relevant to bats please refer to Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn) Bat Conservation Trust and the *UK Bat Mitigation Guidelines* (Reason and Wray, 2023).

When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 15 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

Paragraph 186 of the National Policy Planning Framework (as revised in December 2023) (NPPF, 2023) states:

186. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,
d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

b) Use of Buildings, Structures and/or Trees by Bats

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance (all British bats are insectivorous). Climatic conditions can also affect their ability to successfully forage.

Definitions of the bat roosts most likely to be encountered during the PRA of buildings, structures and/or trees are summarised below (for further details refer to Collins (2023[2])).

a) Day roost; a place where individual bats, or a small groups, rest or shelter during the summer.
b) Night roost; a place where bats rest or shelter in the night but are not found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.
c) Feeding roost; a place where individual bats, or a few individuals, rest or feed for short periods during the night but are not present during the day.
d) Transitional roost; a place used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
e) Maternity roost; a place where female bats give birth and raise their young to independence. In some species males my also be present in the maternity roost.
f) Hibernation roost; a place where bats maybe found individually or together during winter. They have a constant cool temperature and high humidity.
g) Satellite roost; An alternative roost found in close proximity to the main nursery colony used by a few individuals to small groups of breeding females throughout the breeding season.

The bats of Lancashire, as across much of the UK use built structures e.g., residential properties, bridges and culverts etc. as well as features in trees e.g., knot holes, woodpecker holes, peeling bark and torn limbs to roost in and also forage amongst.

The most frequently encountered species are the common and soprano pipistrelle bats; their abundant status in this region is reflected throughout the UK.

[2] Collins, J. (ed.) 2023. Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

3. METHODOLOGY

The methodologies relating to desk-based searches, PRA for bats undertaken in May 2025 are outlined below.

3.1 Desk-Based Study

3.1.1 Local Records Centre Ecological Data

A request for ecological data to the local records centre was not undertaken for this study due to the relatively small-scale of the proposals.

Should the data be requested by the Local Planning Authority, then a retrospective request can be made and the data be included within this report and any necessary ecological evaluations be made.

3.1.2 MAGIC Database

Using the Multi-Agency Geographic Information for the Countryside (MAGIC) web site (https://magic.defra.gov.uk/) searches for statutory designated sites within 2km and European Protected Species Mitigation Licences (EPSML) within 1km were undertaken.

Only those statutory protected sites where bats are included as a Reason for Designation, a notable feature or are of particular interest to the site will be included within this report. It is accepted that most statutory sites will comprise habitats that are likely to be support bat roosts, foraging and or commuting habitats etc. however, unless the proposals are such that the statutory is to be detrimentally or adversely impacted on by the proposals (of which an assessment will therefore be undertaken) then further consideration is not deemed necessary within this report.

3.2 Preliminary Roost Assessment (PRA) Methodology

A daytime Preliminary Roost Assessment survey was conducted on 27th May 2025. Weather conditions were as follows; 11°C, clear skies, calm with no precipitation.

As per the 4th Edition of the 2023 *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023) the PRA involved a detailed internal and external inspection of the structure to compile information on potential and actual bat entry/exit points; potential and actual bat roosting locations i.e., Potential Roost Features (PRFs), any evidence of bats found and the number of ecologists that will be required for any subsequent surveys should they be required.

A PRA is designed to answer specific questions as listed below (taken from Collins, 2023). It should be noted that often all of the questions below cannot be fully answered but by attempting to do so it will improve the assessment of the structure's (or tree's) suitability to support a roost.

- Are actual or potential bat roosts present (and if so, where)?
- Which bat species use the site for roosting?
- How many bats do these roosts support?
- Where are the bat roost access points?
- Where are the bat roosts and how do the bats get to them from the access points (although this is not always possible to establish if the roosts are inaccessible for humans)?
- What is the current arrangement of vegetation and lighting in relation access points?
- At what times of the year are bats present? How does use change seasonally?

Evidence searched for during both the internal and external inspection included the following:

- Evidence of live or dead bats.
- Bat droppings.
- Urine splashes.
- Fur-oil staining.
- Squeaking noises (from live bats).

It should be noted that evidence of bats externally is often not detected, particularly bat droppings which are washed or blown away as a result of rain and/or wind. Depending on the building's use, evidence of bats internally may also be absent due to the bats using cracks and crevices not accessible by the ecologist and/or presence of livestock, general upkeep leading to floors being swept regularly and in doing so removing any evidence, etc.

All elevations were visually accessible and was undertaken with the use of 10x42 magnification binoculars, a Clulite CB2 model 1 million candle power torch, Ridgid CA-350 endoscope and ladders where necessary.

3.3 Habitat Assessment for Bats

Bats will forage in a numerous habitats including waterways, woodlands (both coniferous and deciduous), along hedgerows, grasslands, pastoral and arable farmland, as well as urban environments and moorlands. A wide variety of habitats is also likely to support an abundance of prey items throughout the year (Collins, 2023).

There are a few key characteristics that make good bat foraging habitats (JNCC, 2001):

- Suitable habitat structure; This varies for different bat species and needs to match the particular flight capabilities and echolocation calls they use;
- High densities of insects; Different groups of insects are important to different types of bats; and
- Habitat corridor; These provide both foraging areas and routes that allow bats to move freely between their roosts and feeding areas.

Given the importance attributed to the types of habitats used by bats, during the survey the surrounding habitat was also evaluated as roost selection is often closely correlated with the surrounding landscape.

3.4 Surveyor Credentials

The PRA survey was undertaken by Stuart Macpherson, who is an Associate Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and has over 14 years' experience in land management, ecological survey and evaluation. Key skills include the following:

- Completing Extended Phase 1 Habitat Survey / UKHabs Survey on both small planning applications and Nationally Significant Infrastructure Projects (NSIPs).
- Licensed bat surveyor (2021-10079-CL18-BAT) and Named Ecologist on bat mitigation licences. Formerly an accredited agent from 2016 and an active bat carer.
- Licensed barn owl surveyor (CL29/0477) and active/committee member of Cheshire Barn Owl Group.
- Licensed great crested newt surveyor (2015-16213-CLS-CLS).
- NPTC qualified tree climber (Units 206 and 306 Tree climbing and Aerial Rescue).
- Proficient field botanist.
- Breeding and wintering bird surveyor on a range of habitats including coastal, farmland and moorland habitats.
- Mammal surveys including badger including being an accredited agent on mitigation licences.
- Riparian corridor and mammal surveys for numerous flood alleviation schemes across north west England.
- Ecological Evaluation and Impact Assessments in association with large scale infrastructure projects.

3.5 Survey Constraints

No constraints were encountered during the inspection of the building.

4. RESULTS

The results of the desk-based searches and PRA survey are outlined below.

4.1 Desk-Based Searches

4.1.1 Local Records Centre Ecological Data

A request for ecological data to the local records centre was not made as previously stated within this report.

4.1.2 MAGIC Database

(a) Statutory Designated Sites

There are no statutory designated sites within 2km of the property whereby bats are a Reason for Designation or a species of note/interest within the site's citation.

(b) Granted European Protected Species Licence Applications

There are no granted EPSML for bats within 1km of the site.

4.2 Building Inspection Results

The semi-detached dwelling subject to assessment is considered to comprise 'negligible' suitability to support a bat roost. An internal and external assessment was conducted thoroughly without hindrance.

No evidence of recent or historic use by bats was identified during the survey.

The dwelling measured approximately 6m by 16m at its largest and was approximately 10m tall. To the rear was a half house width, pitched roof extension. The dwelling comprised a stretcher bond brick construction (noted during the internal loft inspection) with fully rendered walls. The render was in very good condition with no obvious cracks or missing render that could potentially support roosting bats.

The dwelling had a slate tiled, single pitched roof with what appeared to be concrete ridge tiles. There were no slipped, cracked or broken roof or ridge tiles, and the mortar was in very good condition beneath the ridge tiles.

The windows were UPVC and were generally in very good condition with no obvious gaps or crevices around the frame that could potentially support roosting bats.

The building's comprised tightly sealed soffits (suspected to be made of UPVC plastic) and there were no visible gaps or cavities under the eaves / against the soffit box and wall identified during the external survey.

Internally, the roof frame was constructed of timber beams and rafters with roofing felt separating the tiles and the beams/rafters. The loft floor comprised old woollen insulation and was fully inspected for droppings etc with none found. Exposed red brick was in very good condition with no missing bricks or mortar recorded. The loft did not appear to be in use as it was empty at the time of survey. With all torch and natural light removed, no sunlight was found to be shining through the roof or the eaves further supporting the external survey findings of tightly fitted soffits. There was no evidence of bats recorded during the loft inspection.

4.3 Habitat Assessment for Bats

The immediate surrounding open grassland habitats to the west are generally unfavourable to foraging/commuting bats as they appear to lack the mature hedgerows / tree lines that will support a good invertebrate population that bats will feed upon. Furthermore, reviewing aerial imagery the grasslands appear to be homogenous and species poor likely used for hay/silage production. Hedgerows are present but these look to be very well managed by the landowner which more often than not reduces the ecological value of the hedgerows.

Simonstone Brook, approximately 140m east of the site is a more suitable foraging location for bats with a wooded corridor extending to the north and east away from the dwelling surveyed.

5. ECOLOGICAL EVALUATION & RECOMMENDATIONS

Where relevant, this section evaluates the site in relation to statutory sites, and protected habitats/species listed in national and local legislation and policy.

5.1 MAGIC Database

The results taken from the MAGIC database are detailed below.

5.1.1 Statutory Designated Sites

(i) Evaluation

There are no statutory designated sites within 2km of the site where bats are included as a Reason for Designation or a notable species.

(ii) Recommendations

No further recommendations.

5.1.2 Granted European Protected Species Licence Applications

(i) Evaluation

There are no granted EPSL applications within 1km of the site.

(ii) Recommendations

No further recommendations.

5.2 Bats

(i) Evaluation

In England, the main pieces of legislation pertaining to the protection of bats in the UK are The Conservation of Habitats and Species Regulations 2017 (as amended); the Wildlife and Countryside Act 1981 (as amended) and The Environmental Damage (Prevention and Remediation) (England) Regulations 2015. For further information and direction to further legislation relevant to bats please refer to Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Bat Conservation Trust.

The building was deemed to be of negligible suitability to support roosting bats.

(ii) Recommendations

There is no requirement for any further surveys or assessments regarding bats. However, there are some recommendations that could provide an uplift for bats in relation to their habitat.

With regards bats the following recommendations are generic and can be finalised once the final plans for the site have been decided on.

External lighting

In all cases illumination of adjacent habitats should be avoided. Where lighting is required, this must be low level, low intensity and directed downwards. The following principles will apply;

- Where and if lighting is required, this will be directed internally within the site avoiding spillage.
- The use of low powered sodium lights or similar will be used and these will be fitted with cowls / covers that prevent lateral light spillage.
- Wherever possible and only if required low level (1-1.5m high) bollard lighting will be used.
- If required lights will be fitted with timer controls that minimise the duration of lighting.

Lighting requirements will follow guidance provided by the Bat Conservation Trust; links are provided below.

- Bat Conservation Trust's Acritical Lighting Guidance. Webpage link https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting
- Bat Conservation Trust and Institute of Lighting Professionals Guidance Note 08/23: Bats and Artificial Lighting in the UK. Webpage link https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released

Ridge access

Where appropriate, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles (Figures 5.1 and 5.2). Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping, and killing bats.

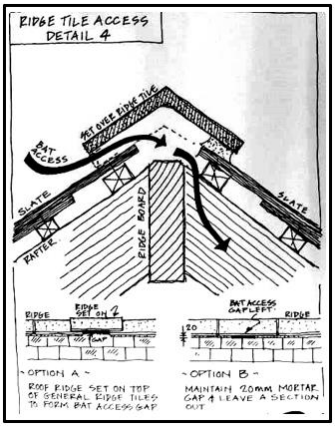


Figure 5.1 – Ridge access

Figure 5.2 – Breathable membrane

Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.

Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings. Suitable models for both buildings and trees may include the Eco Kent Bat Box (Figure 5.3) or a soffit bat box (Figure 5.4).

Figure 5.3 – Eco Kent Bat Box

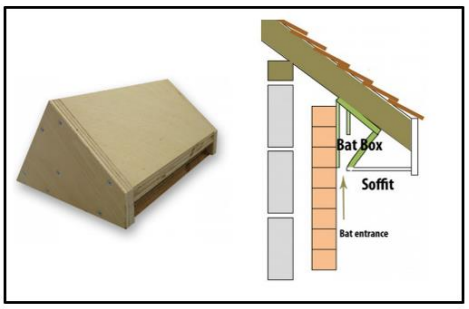


Figure 5.4 – Soffit bat box

REFERENCES

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Bat Conservation Trust.

NPPF (2023). National Planning Policy Framework, https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf.

Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1.* Chartered Institute of Ecology and Environmental Management, Ampfield.

Online References

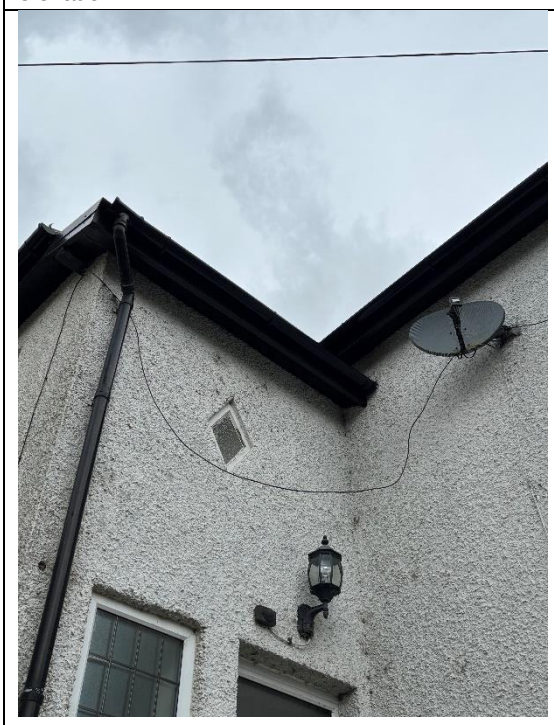
Natural England – MAGIC. Accessed various dates. Latest access May 2025 http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

Google Earth. Accessed various dates. Latest access May 2025.

Appendix A: Site Photographs 27th of May 2025

Photograph 1: Overview of the dwellings east facing elevation.

Photograph 2: View of tightly sealed eaves.

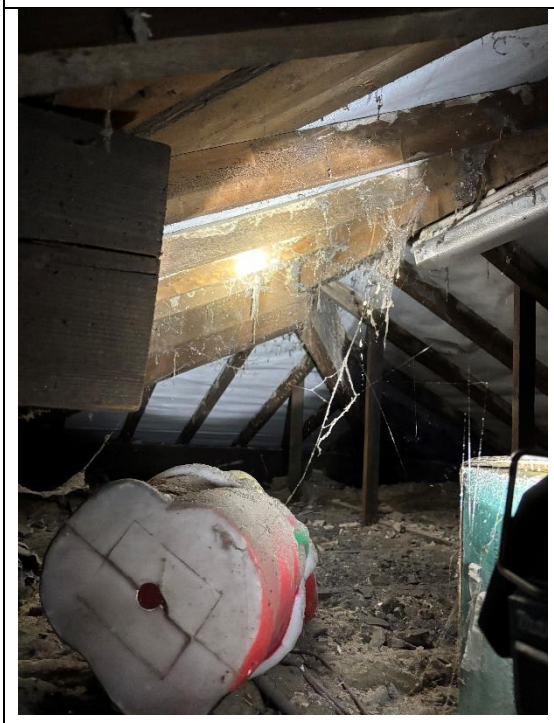


Photograph 3: View of internal L on the east facing elevation.

Photograph 4: View of the buildings south facing elevation.

Photograph 5: View of the buildings south facing elevation.

Photograph 6: View of the good condition pointing on the building's roof.



Photograph 7: View of the timber beams and rafters in the loft space.

Photograph 8: View of the dwellings loft space, no light was visible shining through.