
Ampney Park – Pump Houses, Stone Wall and Trees

Preliminary Bat Roost
Assessment

April 2023

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Non-Technical Summary

Site Name/Location	Ampney Park, London Road, Ampney Crucis, Cirencester, GL7 5RY (central grid reference: SP 06205 02029).
Scope of Works	Preliminary Bat Roost Assessment of the Pump Houses, a section of Stone Wall and Trees identified for removal/management works, undertaken in April 2023.
Survey Methods	Preliminary Bat Roost Assessment undertaken with reference to Collins (2016).
Lead Surveyor	Kate Hayward MCIEEM, Licensed Bat Surveyor (Class Licence Registration Number: 2015-15106-CLS-CLS, bat survey level 2).
Proposed Works	The Pump Houses are proposed for restoration works. The section of Stone Wall is proposed for removal to install a new gate and entranceway. There are 40 Trees across the Ampney Park estate, which are proposed for felling and one mature sycamore is the subject of tree works to reduce the crown.
Results/Assessment	<p>The Pump Houses are assessed as <i>Low</i> suitability to roosting bats. No evidence of roosting bats was found. One bird's nest was present inside one of the buildings at the time of the survey.</p> <p>The section of Stone Wall is assessed as <i>Moderate</i> suitability to roosting bats. No evidence of roosting bats was found.</p> <p>Four of 41 trees are assessed as <i>Low</i> suitability (three trees) and <i>Moderate</i> suitability to roosting bats (one tree).</p> <p>All structures surveyed offer suitable nesting habitat for birds.</p>
Recommendations	<p>One bat survey of each of the two Pump Houses is recommended and two bat surveys of the Stone Wall are recommended. A Climb and Inspect survey of the four trees identified as suitable to roosting bats is recommended.</p> <p>Recommendations for the protection of nesting birds have also been provided.</p> <p>Suggestions for biodiversity enhancements are given.</p>



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1. Introduction

1.1 Background

- 1.1.1 In April 2023, Seasons Ecology was instructed by Simon Morray-Jones Architects Ltd, on behalf of their client, to undertake a Preliminary Bat Roost Assessment of the Pump Houses, a section of Stone Wall and several Trees at Ampney Park, London Road, Ampney Crucis, Cirencester, GL7 5RY (central grid reference: SP 06205 02029).
- 1.1.2 The Pump Houses are proposed for restoration works. The section of stone wall is proposed for removal to install a new gate and entranceway. There are 40 trees across the Ampney Park estate, which are proposed for felling and one mature sycamore is the subject of tree works to reduce the crown.

1.2 Scope and Objectives of Survey

- 1.2.1 The survey was undertaken to identify the presence of and suitability for the Pump Houses, section of stone wall and identified trees, to support protected species, namely bats. Recommendations are made for additional surveys, as appropriate, to further establish any use of these structures by roosting bats, to inform appropriate protection and mitigation measures and to ensure compliance with legislation and licensing requirements.
- 1.2.2 This report is based on the findings of a survey undertaken on 12th April 2023.
- 1.2.3 The report is supported by the following:
 - Annex 1: Elevations Plan of the Pump Houses.
 - Annex 2: Site Plan showing surveyed Trees.
 - Annex 3: Site Photographs.

1.3 Personnel

- 1.3.1 The survey and reporting were led by Kate Hayward MCIEEM. Kate is Principal Ecologist and Director of Seasons Ecology with over 20 years' experience as a professional consultant. Kate is a level 2 licensed bat surveyor (Class Licence Registration Number: 2015-15106-CLS-CLS) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).
- 1.3.2 The survey was assisted by Emma Shaw, Consultant Ecologist and Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Emma has two years' experience as an ecologist advising on development projects and conducting protected species surveys.
- 1.3.3 The survey was also assisted by Patrick Ryan, Assistant Ecologist.

2. Legislation

- 2.1.1 Bat species in England and Wales are protected under the Conservation of Habitats and Species Regulations 2019 (as amended) (EU Exit) and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:
- Deliberately capture, injure or kill bats;
 - Intentionally or recklessly disturb bats;
 - Intentionally or recklessly obstruct access to any structure or place which bats use for shelter or protection; and
 - Deliberately damage or destruction of a breeding site or resting place.
- 2.1.2 With the exception of disturbance, this legislation applies throughout the year whether bats are present or not at the time of works being carried out and generally irrespective of planning permission being obtained or being required.

3. Desk Study Review

- 3.1.1 Various surveys have been undertaken by Seasons Ecology within the Ampney Park Estate, since 2021, including bat roost surveys of several buildings, including the Main House, the Stable Cottage, the Indoor Horse Arena, the Stable and Grooms Flat and the Stone Barn. These reports were reviewed for information on the bat species known to be present within the estate, and for other relevant information.

3.2 Known Bat Roosts

- 3.2.1 The Main House at Ampney Park supports 12 bat roosts. These are three day roosts for common pipistrelle *Pipistrellus pipistrellus*, four day roosts for soprano pipistrelle *P. pygmaeus*, two day roosts for brown long-eared *Plecotus auritus*, and two day roosts and one night roost for lesser horseshoe *Rhinolophus hipposideros*.
- 3.2.2 The Stone Barn supports one common pipistrelle maternity roost and one soprano pipistrelle day roost. The Indoor Horse Arena supports one brown long-eared day roost and one night roost.

3.3 Other Relevant Information

- 3.3.1 There are no statutory designations for bats within 4km of the site and the site does not lie within a Bat Consultation Zone.
- 3.3.2 There are wider records for locations between 0.9km and 3.9km from the site for the species brown long-eared, common pipistrelle, Natterer's bat *Myotis nattereri*, soprano pipistrelle and lesser horseshoe.

4. Preliminary Bat Roost Assessment

4.1 Methods

- 4.1.1 The Pump Houses (Buildings B1 and B2), the section of Stone Wall and 41 Trees within the estate, were assessed for their suitability to offer roosting sites to bats. This assessment considered the style, construction and condition of the buildings (missing roof tiles, rotten beams, cracks in stonework and ivy cover, for example) and presence of any suitable access points. The tree inspection examined loose bark, rot holes, splits in the limbs and suitable crevices. Based on these factors the buildings, stone wall and trees are assessed as having *Negligible, Low, Moderate* or *High* suitability to roosting bats (with reference to the guidance in Collins, 2016¹).
- 4.1.2 A visual inspection was then undertaken of the internal areas of the buildings to search for signs of bats, such as droppings, staining, scratch marks, feeding remains, and for actual bats. A high-powered torch was used to aid the inspection.
- 4.1.3 Survey methods refer to BCT (2016)².

4.2 Descriptions and Results

- 4.2.1 Ampney Park lies in a rural, village location approximately 2.5km to the east of Cirencester. The estate is around ten hectares in size and contains buildings, formal gardens, paddocks, scattered trees, woodland blocks and water bodies, including the Ampney Brook.
- 4.2.2 A church and associated grounds lie immediately to the east and beyond are low density residential dwellings within the village of Ampney Crucis. The main A417 London Road borders the estate to the south. The wider surroundings are predominantly arable and improved grassland fields divided by mature hedgerows with occasional trees and patches of woodland, including Merrillhill Copse, Sidelands Copse, and Underacre.
- 4.2.3 An elevations plan of the Pump Houses is provided at Annex 1 and a site plan showing the surveyed trees is provided at Annex 2. Site photographs are provided at Annex 3.

Pump House, Building B1

- 4.2.4 Building B1 is constructed of a combination of brick and Cotswold stone. The south and west elevations are directly adjacent to Ampney Brook. The west end has a pitched roof constructed of flat stone tiles of varying sizes, and the east end has a lean-to corrugated asbestos roof. There are timber-framed windows on the north, east and west elevations. There is a timber-framed door on the south elevation.
- 4.2.5 The roof tiles are in very poor condition with several raised, missing and misplaced tiles evident (Target Note 1, Annex 1). The walls have several gaps, particularly at the roofline, notably there is a hole in the wall near the roofline on the east elevation (Target Note 2, Annex 1). Both roof sections are partially collapsed where a mature ash tree has fallen onto the roof (Target Note

¹ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines*. Bat Conservation Trust. Third Edition.

² Bat Conservation Trust (BCT) (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines*. Bat Conservation Trust. Collins. Third Edition.

3, Annex 1). The timber-framed door on the south elevation is permanently left open (Target Note 4, Annex 1). The windows on the north, east and west elevations have no glass (Target Note 5, Annex 1).

- 4.2.6 Internally, B1 is flooded with the floor sitting beneath approximately 15cm of water. There is a large metal water wheel in the centre of the west section of the building, and the entire internal area is cluttered. Horizontal wooden beams span the internal area at the roofline. The roof is lined with lime mortar. There is no enclosed roof void.
- 4.2.7 The internal walls of B1 are in poor condition with numerous crevices evident, particularly near the roofline (Target Note 6, Annex 1). The lime mortar beneath the roof tiles is in very poor condition with numerous gaps present (Target Note 7, Annex 1). The broken windows and partially collapsed roof allow an influx of daylight into the interior, however darker areas are present internally. One bird's nest was located in the north-east corner of the building at the time of survey (Target Note 8, Annex 1).
- 4.2.8 Building B1 is assessed as *Low* suitability to roosting bats. Whilst there are access points into the interior identified, including the partially collapsed roofs, windows with no glass and open doorway, and external features (raised, missing and misplaced roof tiles and gaps at the roof line), the building is suitable to support low numbers and individual bats within these features, and is also suitable as a night roost with internal wooden beams for perching. However, it is generally unsuitable to support large numbers of bats or significant roosts.
- 4.2.9 No evidence of roosting bats was found in the building during the survey.

Pump House, Building B2

- 4.2.10 The walls of Building B2 are a combination of brick and Cotswold stone. The roof has collapsed with only a few flat stone roof tiles of varying sizes remaining around the roofline. The wall on the north elevation is partially collapsed. There is one timber-framed window on both the south and west elevations, and a timber-framed door on the west elevation.
- 4.2.11 The stonework walls of the building are in good condition. The remaining roof tiles above the south elevation have a low number of gaps near the roofline (Target Note 9, Annex 1). There is a hole in the wall on the east elevation at the roofline (Target Note 10, Annex 1). There is a hole within the beam above the door on the north elevation which appears to lead into a small cavity within the doorframe. The timber-framed windows are without glass (Target Note 11, Annex 1).
- 4.2.12 Internally the stonework walls are in good condition, with a very low number of gaps (Target Note 12, Annex 1). There is a wide gap under the lead flashing on the east elevation (Target Note 13, Annex 1). There is a long narrow gap across the entire top window frame on the south elevation (Target Note 14, Annex 1).
- 4.2.13 The internal area of B2 is well-lit due to the missing roof and windows on the north, east and south elevations.
- 4.2.14 Building B2 is assessed as *Low* suitability to roosting bats. Whilst there are external and internal cracks in stonework, a hole in a beam and gap in the top of one window frame, the absence of a roof creates exposed and well-lit conditions, suitable for low numbers or individual bats to roost. The building is unsuitable to support large numbers of bats or significant roosts.
- 4.2.15 No evidence of roosting bats or nesting birds was found in the building during the survey.

Stone Wall

- 4.2.16 There are dry-stone walls across the estate, including the section to be removed, which is relatively newly constructed (within the last few years). This section is approximately 3m to 3.5m in height. Numerous crevices, including deeper crevices are evident between the stones on both the north and south elevations of the wall.
- 4.2.17 The stone wall is assessed as *Moderate* suitability to roosting bats owing to the presence of deeper crevices within the wall.
- 4.2.18 No evidence of roosting bats or nesting birds was found in the stone wall during the survey.

Trees

- 4.2.19 There are several young, semi-mature and mature trees scattered throughout the grounds, with species including field maple *Acer campestre*, beech *Fagus sylvatica*, ash *Fraxinus excelsior*, silver birch *Betula pendula*, whitebeam *Sorbus aria*, wild cherry *Prunus avium*, Norway spruce *Picea abies*, sycamore *Acer pseudoplatanus*, holly *Ilex aquifolium*, English oak *Quercus robur*, goat willow *Salix caprea*, apple *Malus* species, Cypress *Cupressus* species and Pine *Pinus* species.
- 4.2.20 Table 1 below provides the species of tree, assigned tree number and suitability assessment of the 41 trees surveyed. Annex 2 shows their locations.

Table 1. Bat Roost Suitability Assessment of Trees

Species	Tree Number	Description/Features	Suitability Assessment (Negligible, Low, Moderate, High)
Beech	T 2411	Semi-mature, located in south-west of Area 1	<i>Negligible</i>
Beech	T2410	Immature, located in south-west of Area 1	<i>Negligible</i>
Ash	T 2352	Mature with cracked limb, located in south-west of Area 2	<i>Low</i>
Ash	T 2351	Semi-mature, located in south-west of Area 2	<i>Negligible</i>
Ash	T 2350	Semi-mature, located in south-west of Area 2	<i>Negligible</i>
Ash	T 2349	Mature with exposed central cracked limb, located in south-west of Area 2	<i>Negligible</i>
Ash	T 2348	Mature, located in south-west of Area 2	<i>Negligible</i>
Silver birch	T 2347	Semi-mature, located in south-west of Area 2	<i>Negligible</i>
Beech	T 2344	Mature, located in the south of Area 2	<i>Negligible</i>
Beech	T 2343	Mature, located in the south of Area 2	<i>Negligible</i>
Beech	T 2342	Mature, located in the south of Area 2	<i>Negligible</i>

Species	Tree Number	Description/Features	Suitability Assessment (Negligible, Low, Moderate, High)
Sycamore	T 2386	Mature with large rot holes and cracked bark, located in the west of Area 2	<i>Moderate</i>
Holly	T 2311	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Holly	T 2312	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Oak	T 2313	Mature, located in the east of Area 2	<i>Negligible</i>
Holly	T 2314	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Holly	T 2315	Mature, located in the east of Area 2	<i>Negligible</i>
Holly	T 2316	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Pine	T 2317	Semi-mature with one rot hole, located in the east of Area 2	<i>Low</i>
Beech	T 2318	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Cypress	T2319	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Cypress	T2320	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Apple	T 2321	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Oak	T2322	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Norway Spruce	T 2323	Semi-mature, located in the east of Area 2	<i>Negligible</i>
Sycamore	T 2366	Mature, located in the south-west of Area 3	<i>Negligible</i>
Sycamore	T 2361	Mature, located in the south-west of Area 3	<i>Negligible</i>
Ash	Group 2367	Mature, located in the south-west of Area 3	<i>Negligible</i>
Standing deadwood	Group 2367	Located in the south-west of Area 3	<i>Negligible</i>
Ash	Group 2367	Immature, located in the south of Area 3	<i>Negligible</i>
Sycamore	Group 2367	Semi-mature, located in the south of Area 3	<i>Negligible</i>
Ash	Group 2367	Semi-mature, located in the south of Area 3	<i>Negligible</i>
Oak	Group 2367	Semi-mature, located in the south of Area 3	<i>Negligible</i>

Species	Tree Number	Description/Features	Suitability Assessment (Negligible, Low, Moderate, High)
Cherry	Group 2367	Semi-mature, located in the south of Area 3	<i>Negligible</i>
Cherry	Group 2367	Immature, located in the south of Area 3	<i>Negligible</i>
Whitebeam	T 975a	Semi-mature, located in the west of Area 6	<i>Negligible</i>
Field maple	T 979c	Semi-mature, located in the west of Area 6	<i>Negligible</i>
Ash	T 977a	Semi-mature, located in the west of Area 6	<i>Negligible</i>
Ash	T 977b	Semi-mature, located in the west of Area 6	<i>Negligible</i>
Ash	T 977c	Semi-mature with dense ivy cover across trunk, located in the west of Area 6	<i>Low</i>
Goat willow	T 978b	Semi-mature, located in the west of Area 6	<i>Negligible</i>

4.2.21 Referring to Table 1, 37 of the 41 trees surveyed were assessed as *Negligible* suitability to roosting bats. Three trees were assessed as *Low* suitability to roosting bats, two ash (T 2352 and T 977c) and one pine (T 2317), and one tree was assessed as *Moderate* suitability to roosting bats, a mature sycamore (T 2386).

4.2.22 No evidence of nesting birds was found in the trees during the survey.

5. Summary

- 5.1.1 The Pump Houses, Buildings B1 and B2, are assessed as *Low* suitability to roosting bats, owing to the internal and external features identified, but dilapidated condition of the buildings.
- 5.1.2 The stone wall is assessed as *Moderate* suitability to roosting bats, with crevices, including deeper crevices identified.
- 5.1.3 Three trees are assessed as *Low* suitability to roosting bats (two ash and one pine) and one tree (a sycamore) is assessed as *Moderate* suitability to roosting bats.
- 5.1.4 One of the Pump Houses, Building B1, supported a bird's nest at the time of the survey. Both Pump Houses, a fallen ash tree on Building B1, the stone wall and all trees offer suitability to nesting birds.
- 5.1.5 These structures all lie within the grounds of Ampney Park, which supports moderate to high quality habitats for foraging and commuting bats, with known bat roosts located on site for the species, common and soprano pipistrelle, brown long-eared and lesser horseshoe. One of the Pump Houses, Building B1, offers low suitability as a day and night roost for lesser horseshoe bat, with suitable crevices for low numbers or individuals of crevice-dwelling species, including pipistrelle species, to roost.

6. Recommendations

- 6.1.1 The Pump Houses, assessed as *Low* suitability to roosting bats, are proposed for restoration works. The section of stone wall, assessed as *Moderate* suitability to roosting bats, is proposed for removal to install a new gate and entranceway. There are 40 trees across the Ampney Park estate, which are proposed for felling, three of which offer *Low* suitability to roosting bats, and one mature sycamore, assessed as *Moderate* suitability to roosting bats, is the subject of tree works to reduce the crown.
- 6.1.2 With consideration to the proposals, the following is recommended:

6.2 Bat Surveys

- Pump Houses – One bat survey should be undertaken of the Pump Houses, between May and September, to determine the presence of bat roosts, the status of any roosts found, and the numbers and species of bats. The surveys will inform the approach to works, including additional surveys, licensing requirements and mitigation and compensation measures.
- Stone Wall – Two bat surveys should be undertaken of the stone wall, between May and September, to determine the presence of bat roosts, the status of any roosts found, and the numbers and species of bats. The surveys will inform the approach to works, including additional surveys, licensing requirements and mitigation and compensation measures.
- Trees – A Climb and Inspect survey should be undertaken of trees T 977c, T 2317, T 2352 and T 2386, by a suitably Licensed Bat Ecologist and Qualified Tree Climber, to inspect the roosting features identified on each tree with the aid of an endoscope. The survey will aim to identify any bat roosts present, and any requirement for further surveys to inform the approach to works, licensing requirements and mitigation and compensation measures.

6.3 Nesting Birds

- 6.3.1 Works to the Pump Houses and stone wall, and tree removal/tree works, should commence outside the nesting bird season (generally this is from the beginning of March to the end of August), or a pre-works check should be undertaken by an Ecological Clerk of Works. Should nesting birds be found within or on any of the buildings, stone wall or trees, then works to that structure would need to be postponed until all chicks have fledged the nest and the nest is deemed inactive by the Ecological Clerk of Works.

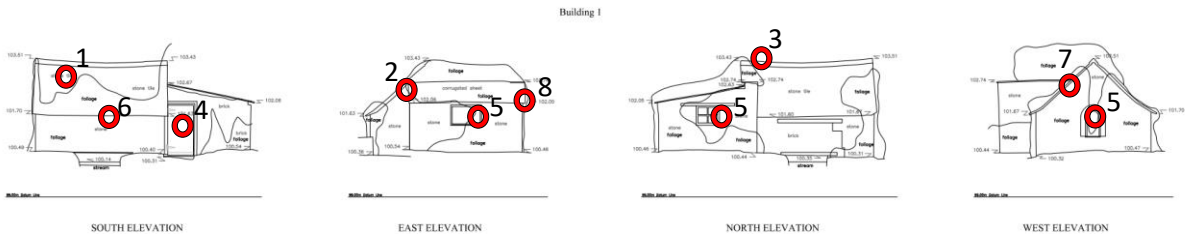
6.4 Biodiversity enhancements.

- 6.4.1 Renovation of the Pump Houses could result in the loss of potential roosting and nesting features for bats and birds. During re-roofing of the Pump Houses, several stone tiles should be left with gaps beneath, to maintain opportunities for roosting bats. A larger opening could be left in each of the Pump Houses to maintain potential accesses for roosting bats and nesting birds, on completion of the works.
- 6.4.2 The wider estate offers opportunity to enhance roosting and nesting opportunities for bats and birds, with the provision of a range of bat and bird boxes on suitable trees across the estate.

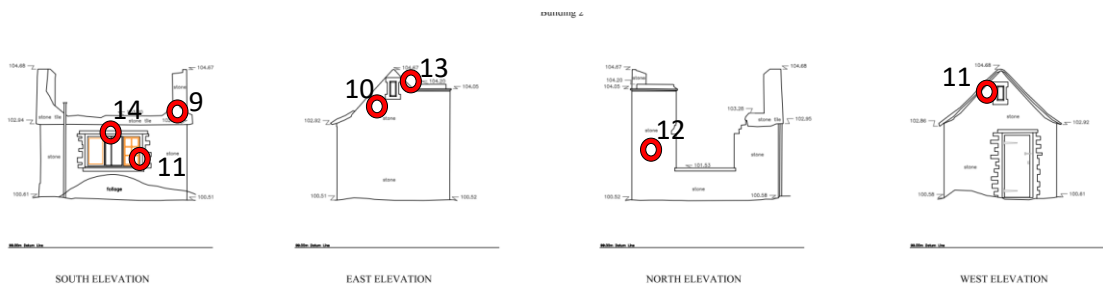
7. Annexes

Annex 1: Elevations Plan of the Pump Houses (April, 2023)

Building B1



Building B2



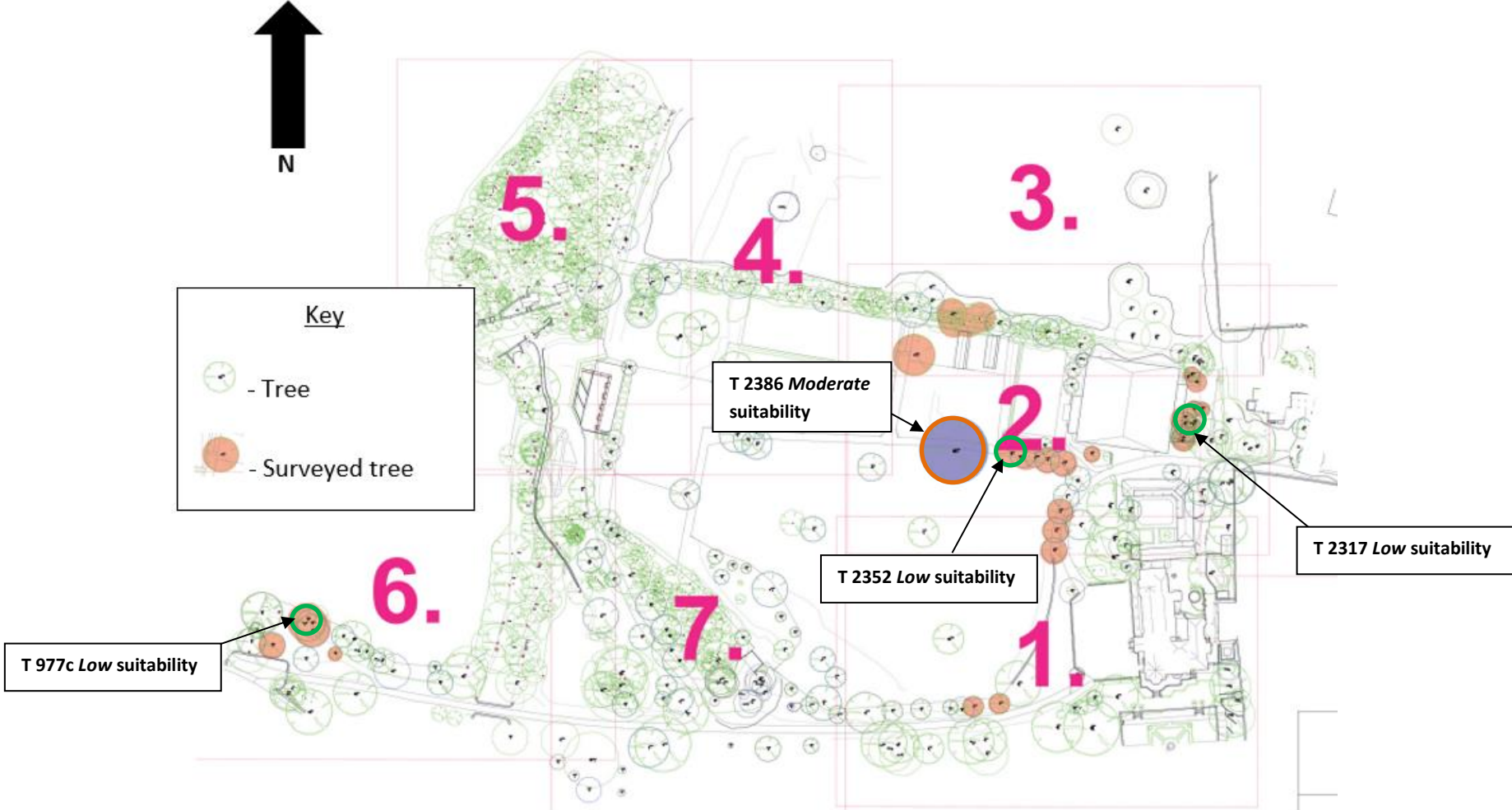
Target Note Descriptions.

- 1: Raised, missing and misplaced roof tiles.
- 2: Hole in the wall near the roofline.
- 3: Ash tree fallen on roof, the corrugated asbestos roof and stone tiled roof are both partially collapsed.
- 4: Timber frame door which is permanently left open.
- 5: Windows missing windowpanes.
- 6: Internal walls have numerous crevices.
- 7: Lime mortar beneath tiles in poor condition with numerous gaps.
- 8: Bird's nest

Target Note Descriptions.

- 9: Low number of gaps near the roofline.
- 10: Hole in the wall at the roofline.
- 11: Timber-framed windows, no glass.
- 12: Internally there is a low number of gaps in the stonework.
- 13: Wide gap under the lead flashing.
- 14: Long narrow gap across the top of the window fame.

Annex 2: Site Plan showing Tree Locations (April, 2023)



Annex 3: Site Photographs (April, 2023)

Photograph 1. Building B1, the south and west elevations and the stone-tiled roof.



Photograph 2. The west elevation of Building B1.



Photograph 3. Open door on the south elevation of Building B1.



Photograph 4. The north and east elevations of Building B1.



Photograph 5. The north elevation of Building B1.



Photograph 6. The cluttered inside of Building B1.



Photograph 7. The inside of Building B1, showing the hole in the roof caused by the collapsed ash tree.



Photograph 8. The west elevation of Building B2.



Photograph 9. The north elevation of Building B2.



Photograph 10. The south elevation of Building B2.



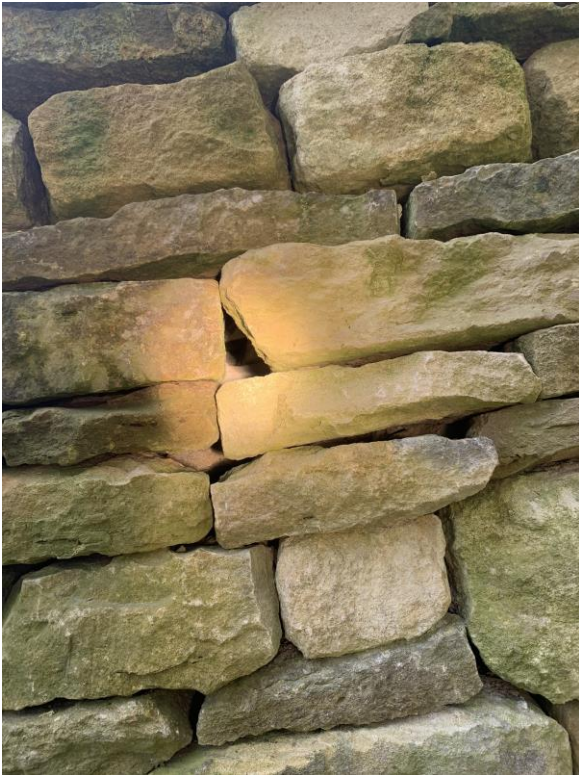
Photograph 11. The Stone Wall.



Photograph 12. Crevices within the Stone Wall.



Photograph 13. A deeper crevice in the Stone Wall.



Photograph 14. Tree 2386, a sycamore assessed as *Moderate* suitability to roosting bats. Visible features include rot holes and cracked, loose bark.



Photograph 15. Trees 977a, 977b and 977. The tree on the left is T 977c, an ash tree assessed as *Low* suitability to roosting bats.

