



Preliminary Roost Assessment

Briefing Note Report

Caley's Place, Mellis Road, Yaxley, IP23 8DB



Ms S. Stein, Caley's Place, Mellis Road, Yaxley, IP23 8DB

May 2023

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Contents

Executive Summary	3
1 Introduction.....	3
Terms of Reference	3
Aim of Report.....	5
2 Methodology	5
Desk Study	5
Bat Preliminary Roost Assessment.....	5
3 Survey Results.....	6
Desk Study	6
Bat Preliminary Roost Assessment.....	7
Site Photographs	10
4 Conclusions and Recommendations.....	11
5 References.....	13

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Report prepared by Dr J. Huckle for Huckle Ecology Ltd

Declaration: The information and advice which we have prepared and presented it true and has been developed in accordance with the Chartered Institute of Ecology and Environmental Management Code of Professional Conduct. We confirm that any opinions expressed are our own and my true and bona fide opinions.

Digital Signature:



Dr Jon Huckle CEnv MCIEEM MSc BSc (Hons)

Executive Summary

- Huckle Ecology was commissioned in April 2023 by Ms S. Stein to undertake a Preliminary Roost Assessment of a garage and a shed at Caley's Place, Mellis Road, Yaxley. The PRA has been requested to inform a planning application to demolish the structure and replace them with cart lodge with regard to the potential effects on bats.
- A desk study and PRA survey were undertaken in April 2023. The desk study has confirmed that there are no designated sites, or areas of priority habitats, within close proximity to the site that would present material considerations for the planning decision maker.
- The PRA survey included an external and internal inspection of the buildings to be demolished to identify the presence of signs of bats and the potential suitability of the structures to support bat roosting habitat. The survey recorded no evidence of bats within the buildings and concluded that the buildings provided **negligible** potential habitat for roosting bats; the site provides a small area of low value foraging or commuting habitat for bats.
- Mitigation and enhancement measures have been recommended that demonstrate good practice and will deliver a net gain for biodiversity in proportion to the scale and character of the proposed development. These measures include a wildlife friendly strategy and the erection of bat boxes and bird nest boxes.

1 Introduction

Terms of Reference

- 1.1 Huckle Ecology was commissioned by Ms S. Stein to undertake a Preliminary Roost Assessment (PRA) in relation to a planning application at Caley's Place, Mellis Road, Yaxley (the Site).
- 1.2 The planning application comprises the demolition of an existing garage and shed and the construction of a cartlodge in the same location; the cart lodge would comprise a three-bay structure to included vehicle storage as well as storage functionality. Mid Suffolk District Council (MSDC) has requested a PRA as the works would involve the demolition of the current structures.
- 1.3 The Site location is presented below in Figure 1, with the existing site layout showing the location of the structures to be demolished in Figure 2 below.

Figure 1 Site Location Plan

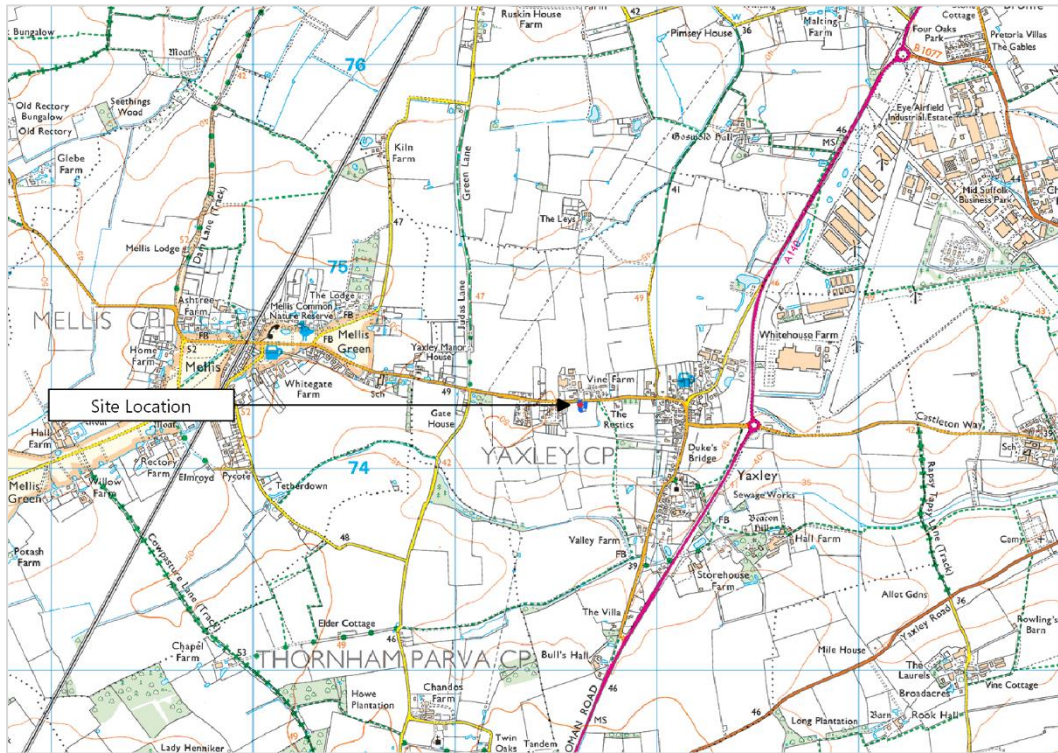


Figure 2 Existing Site Layout showing structure to be demolished (red line) and landholding boundary (blue dotted line)



Aim of Report

- 1.4 This report provides the findings of a Preliminary Roost Assessment Survey to assess the potential suitability of the two buildings to be demolished for bats, whether the proposed development would result in adverse effects on bats, and to determine whether there is a need for further bat activity surveys.
- 1.5 This report does not constitute a more comprehensive Ecological Impact Assessment (EclA) but is considered a proportionate approach where proposed works affect an existing building only and no significant excavations are required.

2 Methodology

Desk Study

- 2.1 A desk study was undertaken to review existing information regarding designated sites, habitats or species that benefit from statutory protection and/or are of nature conservation concern.
- 2.2 The scope of the desk study was to identify features of ecological value that could potentially be affected by the proposed development; for this reason, the scope of the area around the Site to be included within the desk study search has been set at a distance of 1 km which is sufficient to provide an indication of the nature conservation interest in the surrounding area and are considered appropriate for the size of the Site and the nature of the proposed development.
- 2.3 Due to the very small scale of the site, a full data search of records held by Suffolk Biodiversity Information Service (SBIS) was not considered proportionate. Information on statutory sites was obtained from the UK Government internet site MAGIC (<http://www.magic.gov.uk/>) and from the Natural England Open Data Geoportal ([Natural England Open Data Geoportal \(arcgis.com\)](http://arcgis.com)).

Bat Preliminary Roost Assessment

- 2.4 The Bat PRA was undertaken on 20th April 2023, and included an external and internal inspection of the two buildings proposed to be demolished and replaced by a cart lodge.
- 2.5 The PRA survey was undertaken by Dr Jon Huckle, an experienced professional ecologist with over 25 years of postgraduate experience and over 20 years operating as an ecological consultant. He has undertaken numerous bat surveys, including building inspections, bat activity transects, emergence and return roost surveys and has managed ecological input to numerous ecology chapters of Environmental Statements. He has provided evidence as an expert witness on bat ecology at several planning inquiries.
- 2.6 The preliminary roost assessment comprised a detailed inspection of the exterior and interior of the buildings to look for features that bats could use for entry/exit and to search for signs of bats, in accordance with methodological guidance produced by the Bat Conservation Trust (Collins, 2016). The objective of the survey was to determine the actual or potential presence of bats, to identify potential emergence points to focus on during emergence surveys, and to confirm the scope of further surveys that would be required to accompany the planning application, in line with best practice guidance on bat surveys (Collins, 2016).

- 2.7 For each building or tree, the PRA assigns a category to each structure according to its potential for supporting bat roosts using the criteria detailed in the BCT survey guidelines (Collins, 2016) and summarised in Table 1 below.

Table 1 Guidelines for assessing the potential suitability of proposed development sites for bats, taken from Collins 2016.

Suitability	Description of roosting habitats	Description of commuting and foraging habitat
Negligible	Negligible habitat features onsite likely to be used by roosting bats.	Negligible habitat features on- site likely to be used by commuting or foraging 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 or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation.) A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Site is close to and connected to known roosts.

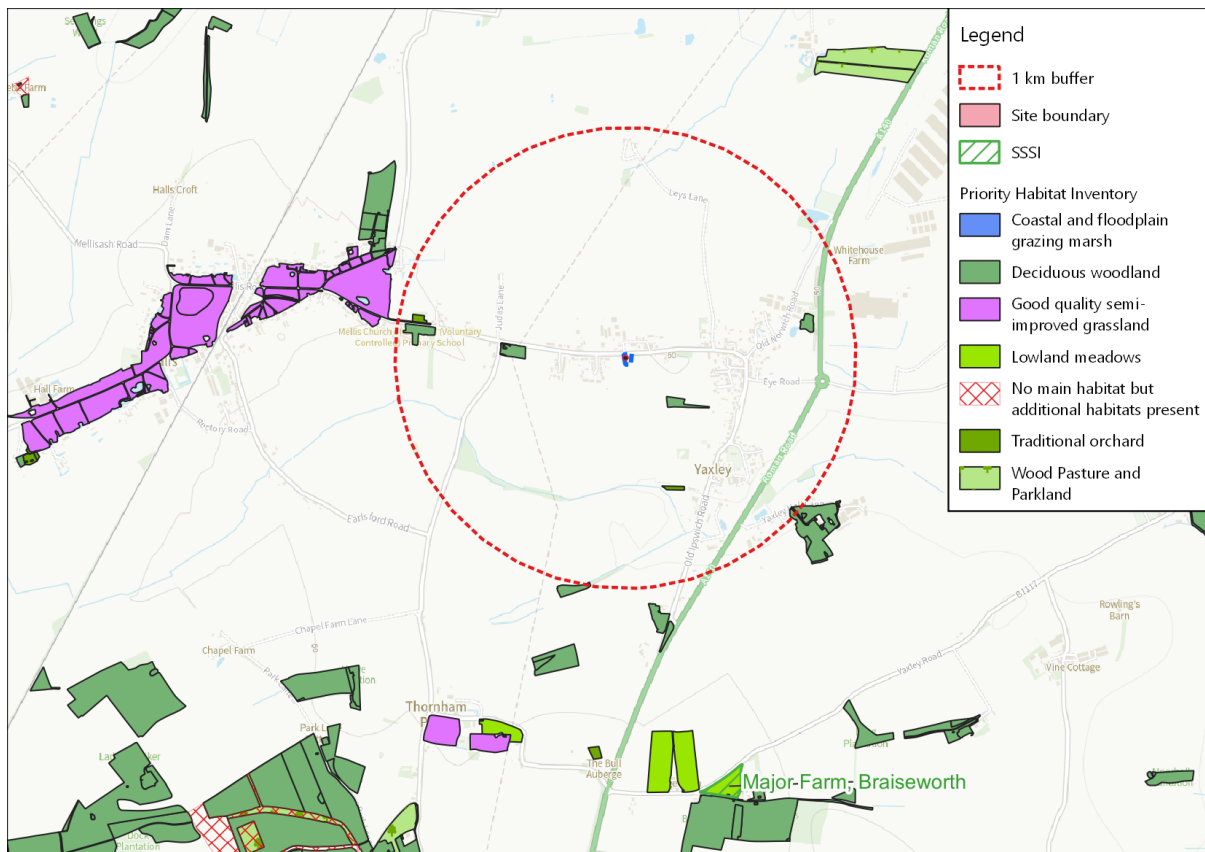
3 Survey Results

Desk Study

- 3.1 No Statutory Designated Sites (Site of Special Scientific Interest, European Sites, Local Nature Reserves etc) are located within 1km of the application site. The closest SSSI is Major Farm, Braiseworth SSSI located approx. 5.7km south west of the application site at its closest point.

- 3.2 No non-statutory designated sites were identified within 1km of the application site; the nearest County Wildlife Site is Southolt Churchyard, located approx. 1.9 km south south east of the Site. Within 1km of the Site there are five small blocks identified as deciduous woodland and one small Traditional Orchard to the west of the Site. Further from the Site, there are more extensive areas of good quality semi-improved grassland associated with Mellis Common to the west and relatively extensive areas of woodland at Thornham Walks to the south west. d
- 3.3 Due to the small extent of the proposed works and the very limited nature of the proposed development, it is considered certain that there would be no direct or indirect adverse effects on any statutory or non-statutory designated sites, or areas of Priority Habitat.

Figure 3 Location of Designated Sites and Priority Habitats in relation to 1km search areas around Site



Bat Preliminary Roost Assessment

- 3.4 All bat species in England and Wales, and their resting and breeding places (roosts), are afforded protection under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence for anyone to intentionally or recklessly kill or injure a bat or disturb a roosting bat. It is also an offence to damage, destroy or obstruct

Preliminary Roost Assessment – 20th April 2023

- 3.5 The building inspection was undertaken in April 2023 to provide an evaluation of the current potential suitability of the buildings that are the subject of the planning application to support bat roosting habitat. The proposed development will involve the demolition of two structures, a small shed and a garage, and their replacement with a cart lodge.

- 3.6 The survey was undertaken in bright, clear conditions although after low levels of rain in the preceding three days; these were optimal conditions for a building inspection although rain can wash some recent signs of bats off exposed surfaces. The survey was undertaken in April, which is at the start of active season for bats when bats have generally come out of hibernation and active, feeding on most nights when temperatures are suitable; in cold conditions bats may become torpid again (cool and inactive) or may move between several roosts.
- 3.7 The building inspection was able to access both the exterior and interior of both buildings affected by the proposed development; there were no significant limitations to the building inspection.

Building 1 – Garage

- 3.8 The Garage was located to the west of the main house and to the south of Mellis Road with a parking area between the garage and the road.

External Inspection

- 3.9 The double garage was the larger of the two buildings and comprised a single storey structure approx. 5m wide x 7m long. The building was constructed from prefabricated concrete wall panels with painted timber doors opening to the north. The roof comprised a shallow pitched roof consisting of overlapping asbestos sheets with a low level gable end wall at the north and south elevations with timber weather board cladding above the doors and a line of glazed windows.
- 3.10 The side elevations lacked soffits with a pvc gutter beneath the roof, and with timber fascia boards at each gable end wall. Further windows and a glazed side door were present on the east elevation.
- 3.11 Externally there were no obvious cavities or other bat Potential Roost Features (PRFs) associated with the roof, walls, or boarded sections of the building.

Internal Inspection

- 3.12 The interior of the garage was light and airy with no internal lining to the roof or walls and the roof sheets supported by steel frame structure. The internal area was used for storage and was freely accessible and was thoroughly inspected using a torch and close focusing binoculars where necessary.
- 3.13 All internal surfaces were inspected for the signs of bats including the presence of live or dead bats, bat droppings and urine staining, or evidence of feeding.
- 3.14 No signs of bats were found in any section of the garage.

Evaluation of Building 1

- 3.15 Following the inspection of the garage, it was concluded that there were no habitat features likely to be used by roosting bats and that the building provided **Negligible** suitability as bat roosting habitat.

Building 2 – Timber Shed

- 3.16 The shed was located to the west of the garage and adjacent to the western boundary of the property. It is understood that until approx. one year ago, the shed was used to house raptors including birds peregrine falcons reared and trained for falconry.

External Inspection

- 3.17 The shed was a small timber-boarded panel shed approx. 4m long and 2m wide. The shed was relatively dilapidated with timber boarded walls to each elevation and with glazed windows to the east and south facing elevations. Double boarded doors opened to the north elevation.

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- 3.18 The roof was constructed of clay pan tiles with clay ridge tiles. The tiles were attached directly on to boards and were relatively accessible on both sides of the roof. The tiles were inspected using close focusing binoculars and a torch and no evidence of bats was detected.
- 3.19 At the northwest corner of the roof there was a small amount of dead ivy stems present along the top of the wall and a house sparrow was observed a gap under the lowest tile; it could not be determined whether the house sparrow was roosting or nesting but given the survey date it is highly likely that nesting was occurring.
- 3.20 Externally there were no obvious cavities or other bat Potential Roost Features (PRFs) associated with the roof, walls, or boarded sections of the building.

Internal Inspection

- 3.21 The interior of the shed was light and airy with the roof supported by good condition timber cross beams. The floor was concrete and noted to contain widely distributed large rat droppings
- 3.22 All internal surfaces were inspected for the signs of bats including the presence of live or dead bats, bat droppings and urine staining, or evidence of feeding.
- 3.23 No signs of bats were found in any section of the garage.

Evaluation of Building 1

- 3.24 Following the inspection of the garage, it was concluded that there were no habitat features likely to be used by roosting bats and that the building provided **Negligible** suitability as bat roosting habitat. Although the roof tiles may be used by bats, the small size of the roof, the presence of rats and the previous use of the shed to house raptors are factors that support the conclusion that bats are unlikely to be present.

Foraging and Commuting Habitat

- 3.25 The adjacent garden provides Low value foraging and commuting habitat (Collins, 2016), with areas of amenity grassland and paved areas with hedgerows and individual trees along the site boundary providing limited foraging opportunities and commuting flightlines. The shed is connected to a former Leylandii hedge which extends south from the west along the western boundary of the property and which has been reduced in height recently to approximately 2m.

Conclusion of Bat PRA

- 3.26 The external and internal inspection of both buildings has concluded that both buildings provide **Negligible** suitability as bat roosting habitat and that the Site as a whole provide Low value foraging and commuting habitat for bats.

Evidence of Breeding Birds

- 3.27 A single likely house sparrow nest was observed under the edge of the roof of the shed. Proposed mitigation to offset the loss of this nesting site is provided below.

Site Photographs

Photo 1 View from North of Garage showing double doors



Photo 2 View from south east showing garage on right and shed on left at rear



Photo 3 View from south west of garage



Photo 4 View of east elevation of garage



Photo 5 Interior of roof go garage



Photo 6 View of interior of timber boards above double doors



Photo 7 View from south east of Shed



Photo 8 View of east elevation of shed





4 Conclusions and Recommendations

- 4.1 The proposed application comprises the demolition of an existing garage and shed and their replacement with a cart lodge.
- 4.2 A desk study has confirmed that there are no designated sites, or areas of priority habitats, within close proximity to the site that would present material considerations for the planning decision maker.
- 4.3 The proposed development is not considered likely to result in potential effects on bats; the building was considered to provide negligible potential habitat for roosting bats and the site provides a small area of low value foraging or commuting habitat for bats.
- 4.4 It is not considered that the proposed extension will significantly affect local bat populations, as there is an abundance of alternative foraging sites within the surrounding area that would remain unaffected. Any lighting of the proposed cart lodge could result in disturbance to potential bat habitat, although the buildings are sufficiently far from any potential roost habitats in nearby buildings or trees, such that this is likely to affect potential foraging areas only.
- 4.5 Regardless of the non-significant nature of the potential impacts on bats outlined above, measures designed to minimise the potential effects of the scheme on bats and provide potential habitat enhancements for local bat populations are outlined below.

Mitigation of Potential Effects on Bats

- Avoidance of any adverse effects of artificial lighting by implementing a Wildlife Friendly Lighting Strategy (See below) that will ensure that hedgerows and trees retained or planted around the

site boundaries are not illuminated, with downward, directional lighting pointing away from these features, and with illumination of the existing boundary features avoided.

Wildlife Sensitive Lighting Strategy

4.6 The strategy is recommended to demonstrate measures that avoid lighting impacts on roosting or foraging bats, but which does not compromise safety requirements. The following measures are recommended to be implemented:

- Lighting levels should be minimised as far as practically possible to ensure that lighting needs are met but without unnecessarily increasing ambient light levels.
- Warm white lighting (3000K bulb) should be used in preference to bulbs with a blue or ultraviolet component which can attract insects and potentially lead to a reduction in prey availability for light sensitive bat species.
- Lighting should be fitted within motion sensors with timers to avoid unnecessary lighting of areas when not in use.
- Trees and hedges along the site boundaries will not be illuminated.
- Lights should be downward facing and installed at low levels where possible – this avoids upward light spill. The use of cowls and hoods should be used where possible to direct lighting to areas where needed.

Biodiversity enhancements Benefiting Local Bat and Bird Populations

4.7 The following biodiversity enhancements are recommended to deliver a net gain for biodiversity in proportion to the scale and character of the proposed development:

- Erection of two bat boxes to provide potential roosting habitat in semi-mature trees retained within the existing land holding or on the walls of the proposed cart lodge. The bat boxes should be of standard woodcrete construction¹ such as the 'Schwegler 2F' or equivalent to maximise the durability of the bat boxes while minimising maintenance requirements. It is recommended that at least two boxes are installed, facing different directions (e.g., east, south and west) to provide a greater diversity of roosting opportunities.
- Erection of three bird nest boxes, mounted on the proposed cart lodge and on suitable trees within the applicants' garden; it is recommended that at least one of the nest boxes will comprise a sparrow terrace nest box to be attached to either the east or west elevation of the cart lodge. The sparrow terrace box² will provide a replacement nesting opportunity for house sparrows and will enhance the local potential for the species. In addition, alternative nest boxes should either have a small 28mm or 32mm hole or open fronted for species such as European robin. The boxes should be of woodcrete construction to maximise their durability, for example the Schwegler 1B Nest box³ or equivalent⁴.

4.8 Incorporation of these measures is considered to provide appropriate mitigation measures for any potential adverse effects associated with the proposed development and would also provide significant enhancements to biodiversity across the development site. With the successful implementation of these measures it is considered certain that there would be no likely significant adverse effects on local bat populations and the increase in bat roosting habitat will result in a proportionate gain for biodiversity,

¹ [Woodcrete & WoodStone Bat Boxes | NHBS Practical Conservation Equipment](#)

² [Sparrow Terrace Nest Box | NHBS Practical Conservation Equipment](#)

³ [1B Schwegler Nest Box | NHBS Practical Conservation Equipment](#)

⁴ [Vivara Pro Seville 32mm WoodStone Nest Box | NHBS Practical Conservation Equipment](#)

- 4.9 In accordance with Charter Institute of Ecology and Environmental Management (CIEEM) guidance on the Life Span of Ecological Surveys and Reports (CIEEM, April 2019), it is advised that baseline survey results remain valid for approx. 12-18 months subject to their being no major change in the management of the site or the likelihood of ecological important species moving in to the site.

5 References

CIEEM. (April 2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Winchester: CIEEM.

Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. London: The Bat Conservation Trust.