

PRELIMINARY BAT ROOST ASSESSMENT

NHDC Decarbonisation Project: Hitchin Swimming Pool



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Prepared for:

Willmott Dixon Construction Limited on Behalf of North Hertfordshire District Council

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1 INTRODUCTION

1.1 Purpose and scope of this report

- 1.1.1 RPS was commissioned by Willmott Dixon Construction Ltd Willmott Dixon Construction Limited on behalf of North Hertfordshire District Council (NHDC) to undertake a Preliminary Bat Roost Assessment (PBRA) of the buildings at Hitchin Swimming Pool and Fitness Centre (Fishponds Road, Hitchin SG5 1HA), part of the NHDC Decarbonisation Project.
- 1.1.2 Potential roosting features for bats were identified during a site walkover for the Preliminary Ecological Appraisal for site (RPS, 2024), this PBRA was then recommended as a result.
- 1.1.3 To undertake an initial assessment of the potential ecological impact of the proposals, a preliminary protected species assessment for bats was carried out. This is termed as a Preliminary Roost Assessment (PRA) in accordance with BCT (2023). This assessment is considered 'preliminary' until any required bat surveys, are completed and a suitable report is prepared to support the planning application.
- 1.1.4 The PBRA aims to:
- Assess the site for potential to support protected bat species that could present a constraint;
 - Provide outline options for proportionate mitigation measures; and
 - Provide the above in the context of legislations, local planning policy, and evaluation of any potential impacts.
- 1.1.5 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS.

1.2 Development proposals

- 1.2.1 The development proposals include changes to the building fabric and plant and an external site compound. This includes the removal of roof covering/battens/insulations, installation of insulation to roofs, installation of insulated render systems to external walls, replacement of glazed windows, installation of area source heat pump compound, installation of solar panels and replacement of rooflights.

1.3 Legislation and policy

- 1.3.1 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of The Conservation of Habitats and Species Regulations 2019 (EU Exit Amendment) as European Protected Species. It is an offence to:
- Intentionally or recklessly kill, injure or capture bats;
 - Deliberately or recklessly disturb bats (whether in a roost or not); and
 - Damage, destroy or obstruct access to bat roosts.
- 1.3.2 A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.
- 1.3.3 A Natural England Survey Licence (Minimum Class 2) will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

- 1.3.4 The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): Barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, Noctule *Nyctalus noctula*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Brown Long-eared *Plecotus auritus*, Greater Horseshoe *Rhinolophus ferrumequinum* and Lesser Horseshoe *Rhinolophus hipposideros*.

2 METHODS

2.1 Preliminary Roost Assessment

2.1.1 A systematic external and internal inspection of the structures on site were completed on 15th November 2024 by RPS Class 2 Natural England Bat Licence holder Nicola Pyle (MCIEEM) and Consultatnt Ecologist Toni Winbourne.

2.1.2 The survey used close focusing binoculars, an endoscope, and a high-powered torch as necessary. Access was gained to roof voids and sheds and ladders were used to assess features where required/feasible. The visit was completed in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023).

2.1.3 The structures were assessed for their potential to support roosting bats and whether they would be impacted due to their removal or alteration as part of the proposed development or retained but disturbed due to the proximity to the proposed development.

2.1.4 To assess the potential bat roosting suitability, roosting features and evidence of bats were searched for, such as:

- Live, dead or skeletons of bats;
- Bat droppings in roof voids (particularly below ridge beam and apex);
- Feeding remains e.g., insect wings;
- Tiny scratches / claw marks around external entry points;
- Urine staining or polishing around external entry point;
- Bat droppings in, around or below entry points of the buildings;
- Audible squeaking at dusk or in warm weather;
- Flies around entry point; and
- Smoothing of surfaces around a cavity.

2.1.5 Structural features that may influence the suitability of a building to support roosting bats include the presence of a roof void, the presence of access points into the building (including gaps beneath barge boards, soffits and fascia boards, gaps under lead flashing, gaps within masonry and under loose tiles, gaps between mortise and tenon joints), the complexity and size of any roof voids and daytime light levels in the roof voids.

2.1.6 In addition to the building assessment, the surveyor identified surrounding habitat that had any potential to support roosting, commuting and foraging bats. The surrounding habitat can influence roost potential and notes were made on the setting of the structures, their proximity to significant linear habitat features (such as a watercourse, mature hedgerow, wooded lane or an area of woodland) and other factors including artificial lighting.

2.1.7 Taking account of the architectural and habitat features, the buildings were assigned a level of roost suitability (Table 2.1) based the criteria given in the Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023) and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat survey, or alternatively to obtain sufficient information that would dismiss the need for further assessment.

Table 2.1: Categories for bat roosting potential.

Category	Criteria
Low Potential	No evidence of use, one or two features suitable for low numbers of bats, with very limited roosting potential.

Category	Criteria
	Limited connectivity to wider landscape with other bat habitats.
Moderate Potential	No evidence of use, several suitable features, but unlikely to support a roost type of high conservation status, connected to wider landscape with good foraging habitat.
High Potential	No evidence of use, but many suitable features for use by larger numbers of bats on a more regular basis and potentially for longer periods. Well-connected to good foraging habitat and known roosts nearby.
Confirmed Roost	PRFs with evidence of use present, observation or previous records of bats confirmed to be roosting in the feature/building/tree.

2.2 Limitations

Survey

- 2.2.1 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.
- 2.2.2 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

Accurate Lifespan of Ecological Data

- 2.2.3 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions.

3 RESULTS

3.1 Preliminary Roost Assessment

- 3.1.1 The building on site is currently in use as as an indoor pool and fitness centre. The building is one-two storeys, brick construction with a pitched, clay tiled roof, with lead flashing at the ends of the roof. The pitched roofs had some void spaces which were inspected during the assessment; however, these were generally hot, humid and loud as associated with the pool. A description of the building and its bat roosting suitability is listed below in **Table 3.1**.
- 3.1.2 In total, 33 potential bat roosting features (PRFs) were identified in the building. Considering the construction of the building and the suitability of the site, these features are all considered to be of moderate bat roosting suitability.
- 3.1.3 A map of the PRFs on the structure is presented in **Figure 3.1**. Description and photographs of identified potential roosting features are presented in **Appendix A**.

Table 3.1: Summary of bat roost suitability of structures on site.

Structure	Description of Structure	Potential Roosting Features	Suitability Category
Building	• Building age: late1900s, southwestern wing added 2013. • Currently in use as swimming pool and fitness centre. Associated café and offices. • Multiple sections. • Brick Construction. • Ptched clay tile roof. • One-two storeys.	• Exposed shutters. • Gaps in roof tiles. • Weep holes. • Gaps in lead flashing. • Gaps in soffit. • Exposed vent shutter doors. • Lifted tiles. • Uncovered holes.	Moderate bat roosting suitability

Figure 3.1: Preliminary Roost Assessment Results and Proposed Surveyor Locations.



4 EVALUATION AND DISCUSSION

4.1 Evaluation

- 4.1.1 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species (EU Exit) Regulations 2019, and the Wildlife and Countryside Act 1981 (as amended). Several bat species are also listed in Section 41 of the NERC Act 2006. These include the widespread species soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, and the rarer woodland species such as Bechstein's *Myotis bechsteinii* and barbastelle *Barbastella barbastellus*.
- 4.1.2 External and internal inspections were carried out on all accessible areas of the building. The building was assessed as having moderate bat roost suitability. For structures with higher than low bat roost potential, emergence surveys are required. **Table 4.1** outlines further action.

Table 4.1: Survey effort dependent on potential level assigned (BCT, 2023).

Bat Roost Potential	Surveys Required	Timing
Low Roost Suitability	At least one dusk emergence survey.	May to August.
Moderate Roost Suitability	Two separate dusk emergence visits.	Atleast 3 weeks apart between May to September with atleast one survey between May and August.
High Roost Suitability/Confirmed Roost	Three separate dusk emergence survey visits.	Atleast 3 weeks apart between May to September with atleast two surveys between May and August.

4.2 Potential Impacts

- 4.2.1 The building was assessed to have moderate bat roosting potential with 33 potential bat roosting features identified.
- 4.2.2 The proposed works involve the removal of roof covering/battens/insulations, installation of insulation to roofs, installation of insulated render systems to external walls, replacement of glazed windows, installation of area source heat pump, installation of solar panels and replacement rooflights. These works are proposed to identified potential roosts and/or are in close proximity to potential roosts and therefore have the potential to impact on bat and their roosts.

4.3 Further Assessment

- 4.3.1 In accordance with best practice guidelines (BCT, 2023), dusk emergence surveys are recommended on the building prior to any works commencing that could affect bats and their roosts.
- 4.3.2 As the building has moderate suitability, at least two survey visits are required, in the appropriate survey season (May-September with atleast one survey between May and August.). The survey visits should be carried out at least three weeks apart.
- 4.3.3 The building will require 13 surveyors each with night vision aids (NVAs) and two separate standing infrared (IR) cameras to cover all identified potential roosting features.
- 4.3.4 **Figure 3.1** shows proposed locations of surveyors expected to be required to sufficiently cover all features identified on the building during each survey.
- 4.3.5 The results of this survey will inform the required mitigation. Should bats be found roosting in the structure on site, a license will be required from Natural England to proceed with the works, detailing specific measures to ensure any bat species are not harmed as a result of the development and may include suitable compensation such as bat boxes or bat houses.

4.4 Mitigation

- 4.4.1 Appropriate levels of mitigation for the site will be confirmed once the recommended emergence survey work has been undertaken (Section 4). Briefly, mitigation will consider the species and numbers of bats roosting at the site, to ensure that the post development scenario provides the same level of roosting opportunities, and bats are not harmed during the construction phase. All of this will be detailed in and secured through the application of a Natural England European Protected Species Mitigation License (EPSML) prior to works commencing.
- 4.4.2 Bat boxes are recommended within the final redevelopment design to enhance the site for breeding and mitigate for loss of suitable habitat for bat species. The boxes can be affixed to the building or to appropriate trees within the site.
- 4.4.3 Such boxes could include the 2FN Schwegler bat box or 2FR Schwegler bat tube. An ecologist should be consulted to inform the exact locations of new bat boxes.

5 SUMMARY

- 5.1.1 The building on site is currently in use as as an indoor pool and fitness centre. The building is one-two storeys of brick construction with a pitched, clay tiled roof with lead flashing at the ends of the roof and roof voids.
- 5.1.2 The Preliminary Bat Roost Assessment identified 33 potential bat roosting features at the site. The building and features within are deemed as having moderate suitability for roosting bats.
- 5.1.3 The proposed development is required to address impacts in relation to bats in accordance with legislative and policy requirements (**Section 1.3**).
- 5.1.4 In accordance with best practice guidelines (BCT, 2023), dusk emergence surveys are recommended on the building prior to any works commencing that could affect bats and their roosts. Suitable recommendations and mitigation will be suggested following the results of this survey.
- 5.1.5 Bat boxes have been recommended to be included within the scheme in order to provide bat roosting opportunities within the site, post-development.

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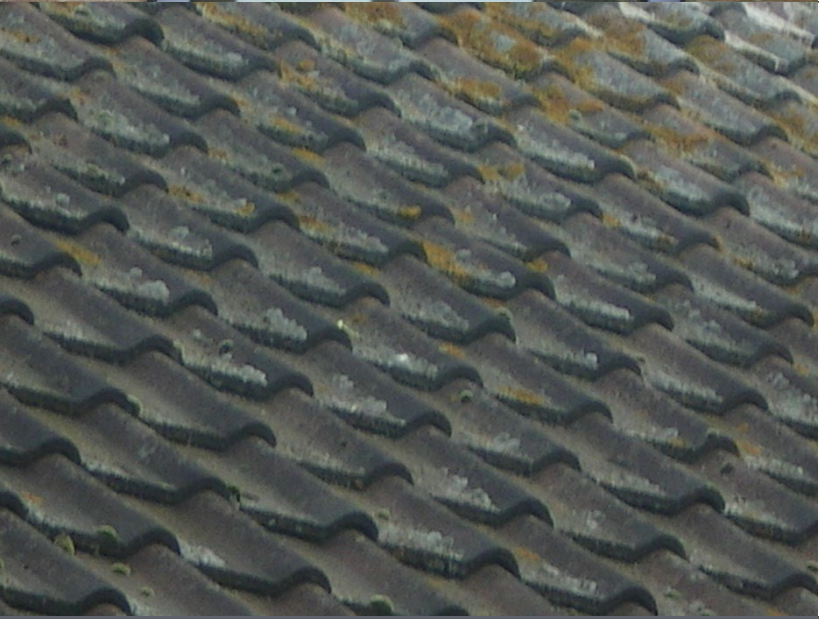
Appendix A

Potential Bat Roosting Feature Description and Photos

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
1	Hole in mesh behind shuttering allowing egress. North-west corner, north elevation	 A photograph showing the north-west corner of a building. The building has a steep gable roof covered in blue corrugated metal. The lower portion of the building is constructed of red brick. There are several windows visible on the brick section. The building is surrounded by a green lawn and some trees in the background.
2	Gaps along the first row of tiles. North end of the building, east elevation	 A close-up photograph of a roof surface. The roof is covered with dark, weathered tiles. The focus is on the first row of tiles, where there are visible gaps and some debris. The sky in the background is overcast.

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
3	Weepholes above the windows, North end of the building, west elevation	
4	Occasional gaps between tiles over the roof. North end of the building, west elevation	

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
5	Gap on lead flashing on the vent. North end of the building, west elevation	
6	Gaps in the tiles. North elevation, east side of the roof	

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Feature	Description	Photo
7	Lead lifted around vent in the roof. North elevation	
8	Gap in wooden soffit / roof edging. West elevation, north side of the large wooden venting	

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Feature	Description	Photo
9a	Gap in wooden soffit / roof edging. West elevation, south side of the large wooden venting	 A close-up photograph showing a dark, narrow gap between a wooden soffit and the roof structure. The soffit is made of light-colored wood, and the gap is located on the west elevation, south side of a large wooden venting.
9b	Lead under the roof windows. Above the indoor swimming pool, north elevation	 A photograph of a dark, rectangular skylight set into a roof covered with dark grey tiles. The skylight is framed in white. The roof tiles are arranged in a pattern, and there is some visible wear or debris around the base of the skylight.

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Feature	Description	Photo
10	All aspects of the building – weepholes low on the walls	
11	Lead flashing has gaps. North elevation	

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Feature	Description	Photo
12	Small plant rooms with vented doors	
13	Small plant room with vented doors	

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Feature	Description	Photo
14	Lead flashing gap along the roof edge. South elevation	 A photograph showing the south elevation of a brick building. The roof is covered in red tiles. A grey lead flashing is visible along the roof edge, with a noticeable gap between the flashing and the roof tiles. A white vent is visible on the brick wall below the roofline.
15	Gap at apex near wall. South elevation	 A close-up photograph of the apex of the roof where it meets a brick wall. The roof is covered in red tiles. A gap is visible between the tiles and the wall, where the lead flashing is not properly sealed, creating a potential entry point for bats.

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Feature	Description	Photo
16	Bitumen and lead flashing gap. South elevation	
17	Gaps in lead flashing between roof and wall. West elevation	

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Feature	Description	Photo
18	Gaps under tiles across this section of roof. South elevation	 A close-up photograph of a roof section. The roof is covered with reddish-brown tiles. A black gutter is visible on the right side. The sky is overcast and grey.
19	Occasional gaps between tiles over the roof. West elevation	 A wide-angle photograph of a large roof covered with reddish-brown tiles. The roof is sloped and extends across the frame. The sky is overcast and grey. A brick wall is visible at the bottom of the frame.

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Feature	Description	Photo
20	Row of lifted tiles along the short roof at the end of the indoor swimming pool building. North elevation	
21	Missing vents in the wooden soffit / roof edging. North elevation	

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Feature	Description	Photo
22	Wooden vent with no mesh, west end of indoor swimming pool room. West elevation	
23	Large wooden venting. West elevation	

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Feature	Description	Photo
24	Small wooden venting. West elevation	
25	Gaps under ridge tiles. South end of front building	

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Feature	Description	Photo
26	Gaps between tiles all along the roof. South elevation	
27	Missing vents in the wooden soffit / roof edging. South elevation	

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
28	Hole without a cover in the wooden soffit / roof edging. South elevation	
29	Gaps under edge tiles. East elevation	

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
30	Gap between the edge of the wood and roof. South elevation	
31	General gaps in tiles scattered along roof along the ridge. East elevation, south end of front building	

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
32	Small plant room with wooden vented access. Between indoor swimming pool and east facing building.	

PRELIMINARY BAT ROOST ASSESSMENT

Feature	Description	Photo
33	Weepholes above the windows of offices. South elevation	