

PRELIMINARY ROOST ASSESSMENT AND DUSK EMERGENCE SURVEY REPORT

NOVEMBER 2024

Chapel Brook
Wilson Road,
Tarbock Green,
L36 6AD

U R B A N
G R E E N

QUALITY MANAGEMENT

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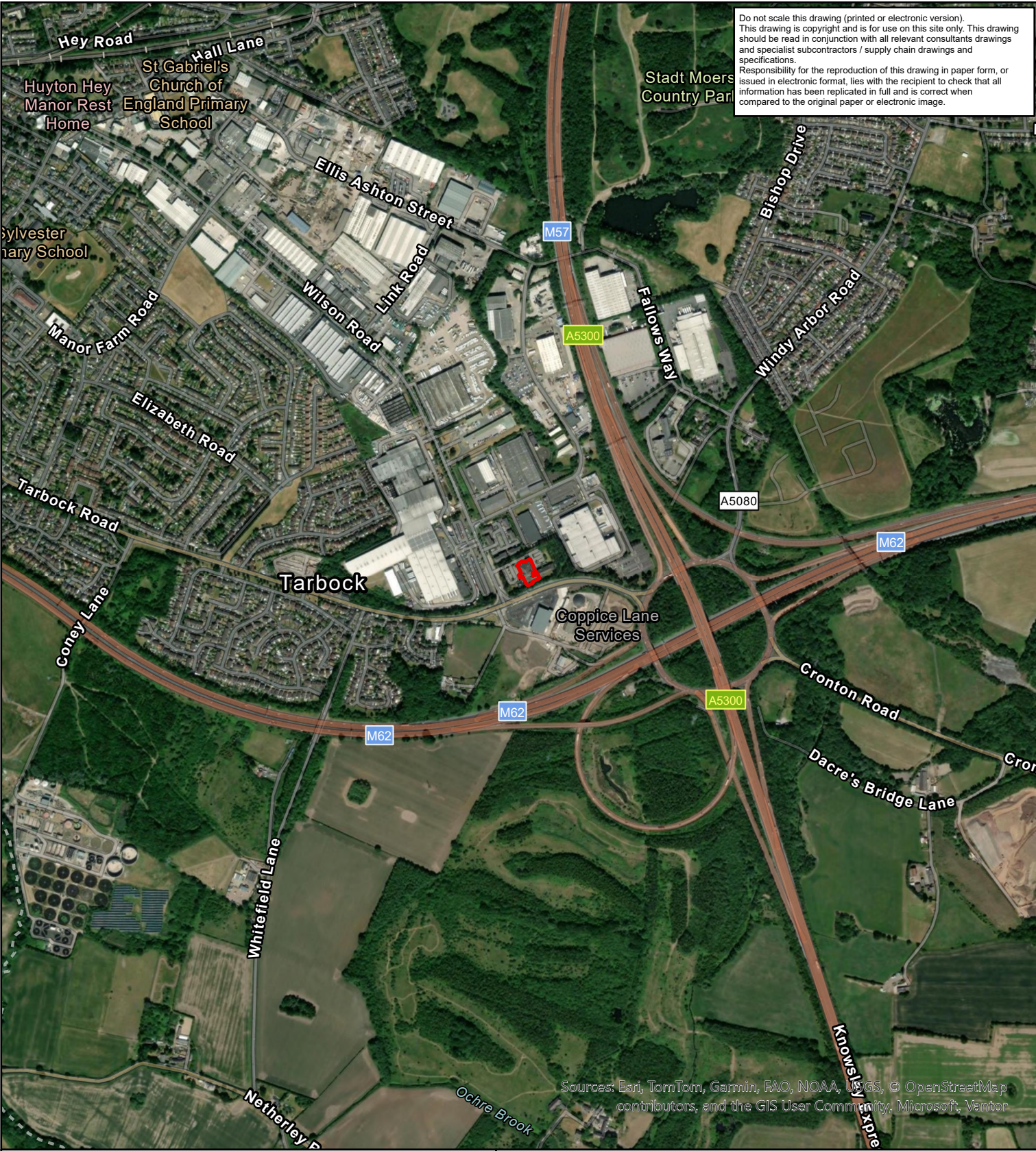
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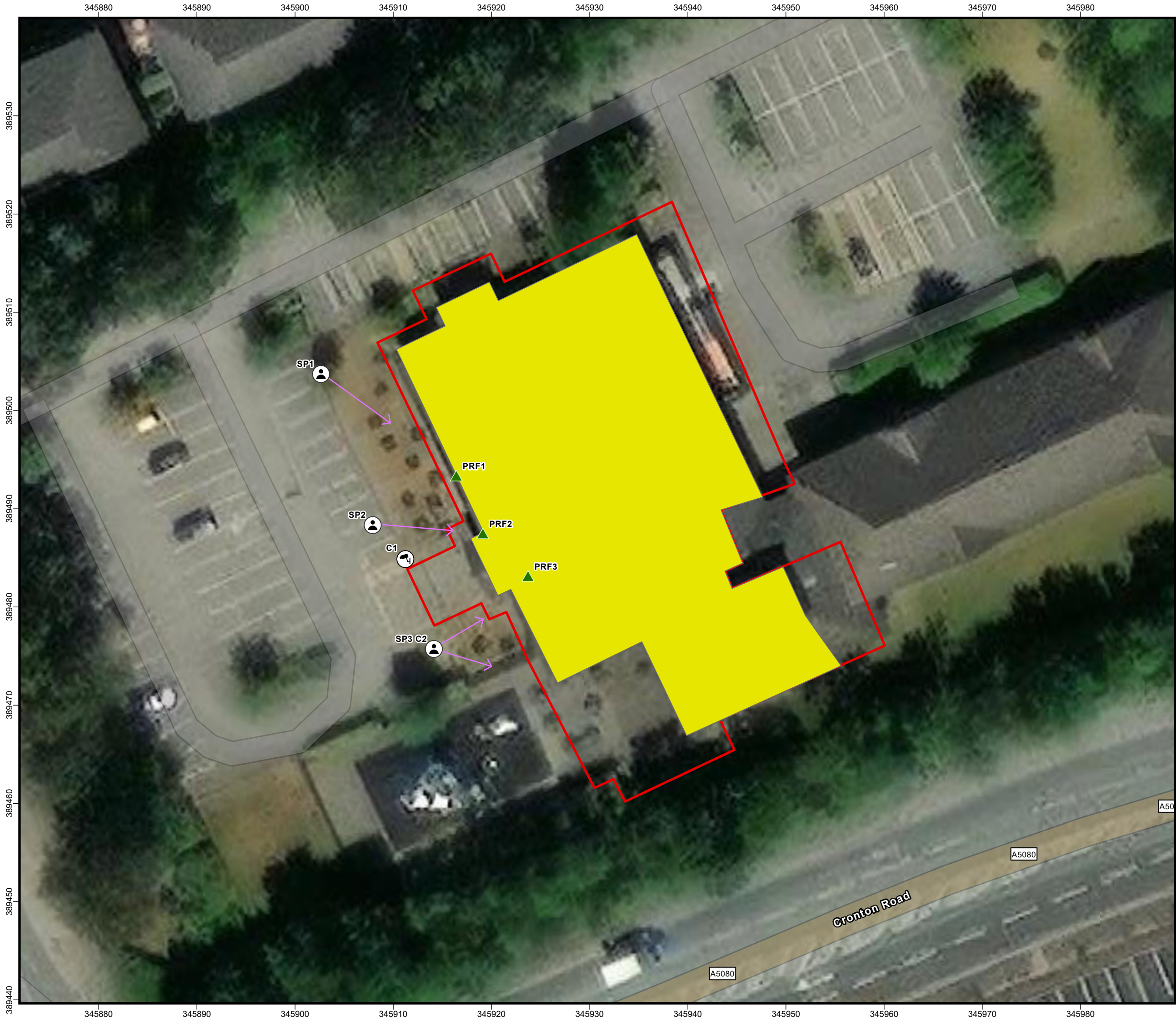
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Legend: Red Line Boundary		1 Kilometers		N
Client: Lichfields		Issue: 01	Figure: 01	U R B A N G R E E N A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF T: +44 (0) 161 312 3131 weareurbangreen.co.uk
Project: Chapel Brook		Scale @ A4 1:12,000		
Title: Site Context		Approved by: CL	Checked by: WG	
Drawing Ref: UG_3144_SITE_CONTEXT		Author: CL	Date: 14/07/2025	



URBAN
GREEN

Legend

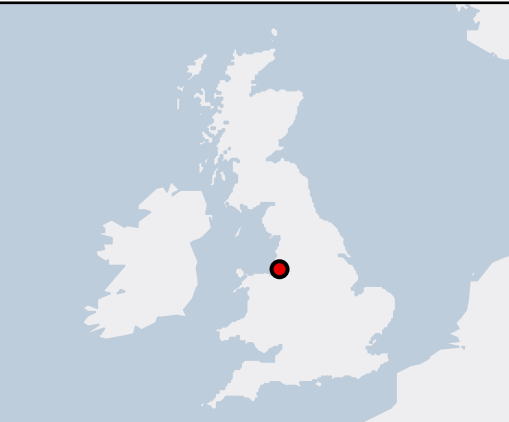
- Red Line Boundary
- Sight Line
- Surveyor
- Camera
- Building PRF

N



Building Roost Suitability

Low



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Client: Lichfields		
Project: Chapel Brook		
Title: Dusk Emergence Survey Map		
Issue: 01	Figure: 02	
Drawn: CL	Checked: SG	Approved: SG
Project: UG3144	Scale @ A3: 1:350	Date: 17/09/2025
Dwg No: UG_3144_ECO_DES_01		Revision: 01

Figure 3. Preliminary Roost Assessment Photographs



Photograph 1: Western aspect view of Building B1.



Photograph 2: Internal metal ceilings within B1.



Photograph 3: Example of apartment space on the first floor of B1.



Photograph 4: Example of loft space within B1 with wooden ceiling beams.



Photograph 5: Damaged light fixture with access into crevice, identified as a PRF.



Photograph 6: Gap in-between soffit board of B1 with access into crevice, identified as a PRF.



Photograph 7: Gap in roof gable verge, identified as a PRF

1 Introduction

1.1 Background to the Scheme

- 1.1.1.1 The development proposals include refurbishment of the existing restaurant into a McDonald's drive-to restaurant. The development proposals will hereafter collectively be referred to as 'the development'.
- 1.1.1.2 Urban Green has been appointed to undertake a Preliminary Roost Assessment (PRA) and one dusk emergence survey for bats at the site.

1.2 Site Context

- 1.2.1.1 The site is located at National Grid Reference SJ 45913 89486 and comprises a total area of approximately 0.5ha (see Figure 1).
- 1.2.1.2 The site is situated within the densely urbanised village of Tarbock Green, Merseyside, Liverpool. It is bordered by commercial development, including a business park to the north, an industrial park to the west, and an Aldi supermarket to the south. Major roads in the vicinity include Cronton Road and Wilson Road immediately south and west, respectively, with the M57 motorway located approximately 330m to the east.
- 1.2.1.3 Within the wider landscape, several parcels of priority deciduous woodland are present, forming a network of high-value habitats. The nearest area of woodland is situated approximately 265m southwest of the site boundary and contributes to the structural diversity of the surrounding area. Approximately 240m east of the site boundary lies the Logwood Mill Brook, a watercourse extending 7km and flanked by woodland, scrub and extensive riparian vegetation, offering continuous linear habitat. These habitats provide an interconnected ecological corridor facilitating species movement and access to foraging and roosting resources in the local environment.

1.3 Purpose of this Report

- 1.3.1.1 This report has been produced to document the methods, results and conclusions of a Preliminary Roost Assessment and dusk emergence survey. The objectives of the PRA include an internal (if access is possible) and external evaluation of the building(s) to determine its suitability for roosting bats, following guidance set out in Collins (2023).
- 1.3.1.2 Relevant UK bat legislation is detailed in Appendix 1.

2 Methods

2.1 Desk Study

2.1.1.1 Sources of information used in the desk study are presented in Table 1.

Table 1: Desk Study Sources of Information

Source	Date Consulted	Information Sought
Online aerial imagery	05/08/2025	Review of satellite imagery.
MAGIC website (www.magic.gov.uk)	05/08/2024	Locations of granted EPSL within 5km of the site.

2.2 Preliminary Roost Assessment

2.2.1.1 A Preliminary Roost Assessment (PRA) was carried out on the site buildings using close-focussing binoculars. The 25th July 2025 was the date selected to undertake the PRA.

2.2.1.2 The PRA methodology is based on information contained within the Bat Conservation Trust (BCT) guidelines, 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 4, which is used as a basis for determining the requirement for further surveys.

Table 2. Suitability of buildings for roosting bats

Category of Suitability	Typical Characteristics	Further Survey Requirements
High Roost Suitability	A structure 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.	Three separate survey visits spaced a minimum of three weeks apart. Surveys can be undertaken between May and September, with at least two surveys between May and August.
Moderate Roost Suitability	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but are unlikely to support a roost of high conservation status.	Two separate survey visits spaced three weeks apart. Surveys can be undertaken between May and September with at least one survey between May and August.

Category of Suitability	Typical Characteristics	Further Survey Requirements
Low Roost Suitability	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 condition and/or suitable surrounding habitat to be used on a regular basis by larger numbers of bats.	One survey between May and August.
Negligible Suitability	Negligible habitat features on site likely to be used by roosting bats.	No further work required.

2.3 Dusk Emergence Survey

- 2.3.1.1 One dusk emergence survey was conducted at the site in compliance with BCT guidelines (Collins, 2023). See Figure 2 for approximate survey positions and Potential Roosting Feature (PRF) locations. The dusk emergence survey was undertaken on 16th September 2025.
- 2.3.1.2 The survey was conducted using Echo Meter Touch 2 bat detectors, which recorded bat activity in full spectrum.
- 2.3.1.3 To enhance detection coverage and provide a reliable record for post-survey analysis, two infrared (IR) video cameras were deployed during the dusk emergence survey. One camera was positioned adjacent to SP3, orientated towards the southern end of the building to provide wider coverage. Cameras were tripod-mounted, positioned to minimise backlighting and obstructions, and operated continuously from the commencement to the conclusion of the survey period. See Figure 2 for approximate camera locations.
- 2.3.1.4 Weather conditions of the survey can be found in Table 3.

Table 3: Emergence Survey Details

Survey Visit Number	Date of Survey	Weather Conditions
1	16th September 2025 Sunset: 19:26 Survey start time: 19:11 Survey end time: 20:56	Starting temperature: 14°C Cloud cover: 10% Wind: 0-1 Beaufort scale Precipitation: Nil

2.4 Infrared Footage Review

2.4.1.1 Following the field survey, all infrared footage was reviewed in full by the survey team at the office. This review process involved careful re-watching of each camera's footage to detect:

- Confirmed emergences of bats from PRFs (e.g. visible exit of bats from a crevice or structural feature);
- Potential re-entries by bats during the survey period; and
- Any ambiguous activity that may require further verification or follow-up surveys.

2.4.1.2 Observations were logged with timestamps and annotated alongside corresponding detector data, where available, to aid in the interpretation of bat behaviour. Video review allowed for a more robust and accurate record of bat activity, particularly in cases where field observations were limited due to obstructions or lighting conditions.

2.4.1.3 The combination of live field observations and post-survey video analysis ensured comprehensive coverage of all PRFs and improved confidence in the assessment of roost presence or likely absence.

2.5 Survey & Reporting Constraints

2.5.1.1 The recommendations detailed in this report are based upon the redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

2.5.1.2 *Myotis Alcaethoe* (*Myotis alcathoe*), brandt's (*Myotis brandtii*), Daubenton's bat (*Myotis daubentonii*) and whiskered (*Myotis mystacinus*) bat are often difficult to distinguish between by handheld detectors and sound analysis. As such, the species have been recorded as *Myotis sp.* throughout the report.

2.6 Lifespan of Reports

2.6.1.1 In accordance with the BCT guidance (Collins, 2023), the details of this report will remain valid for a period of **18 months** from the date of the first survey (i.e. until 16th March 2027). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

3 Results

3.1 Biological Records

3.1.1.1 Data supplied by Merseyside BioBank was reviewed and extrapolated for the closest and most relevant records in relation to bats. Species records over 10 years old have been omitted.

Table 4: Desk study records for bats within 1km of the site

Common Name	Scientific Name	Key Legal Protection / Policy Consideration	Total Number of Records	Closest Record to Site Boundary	
				Distance (m)	Year
Noctule	<i>Nyctalus noctula</i>	WCA 1981 Schedule 5; Hab Regs 2017, Schedule 2	5	515	2015
Common pipistrelle	<i>Pipistrellus pipistrellus</i>		1	825	2015
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>		1	825	2015
Daubenton's bat	<i>Myotis daubentonii</i>		1	835	2015

3.2 Desk Study

3.2.1.1 In addition to the species records information collected, summarised in Table 4 (above), the desk study is expanded (Table 5, below) to consider European Protected Species Licences (EPSL) granted within 5km of the site boundary.

Table 5: Granted EPSLs within 5km

Case Reference Number	Species	Licence Start Date	Licence End Date	Impact on Breeding Site	Damage of Breeding Site	Damage of Resting Place	Destruction of Breeding Site	Destruction of Resting Place
EPSM2013-5867	C-PIP, SP-PIP, BLE, NATT	03/12/2013	30/09/2024	N	-	-	N	Y
2017-28690-EPS-MIT-1	BLE, C-PIP	01/08/2017	30/11/2018	N	N	Y	N	Y
2018-38343-EPS-MIT	C-PIP	01/01/2019	31/01/2022	N	N	N	N	Y
2018-38385-EPS-MIT	C-PIP	18/12/2018	30/09/2019	N	N	N	N	Y
2020-49681-EPS-MIT	C-PIP	22/10/2020	21/10/2025	N	N	N	N	Y

4 Preliminary Roost Assessment (PRA)

- 4.1.1.1 One building (B1) was subject to a PRA to evaluate its potential to support roosting bats. B1 comprises a disused restaurant structure that is physically connected to the adjacent hotel.
- 4.1.1.2 In summary, three PRFs were identified during the external assessment of B1. The building was assessed as having 'Low' potential for roosting bats, meaning it has the potential to be used opportunistically by individual or a very small number of bats.
- 4.1.1.3 The external PRFs consist of small crevices leading into confined spaces and do not offer sufficient shelter to support a larger number of bats on a regular basis. This is further supported by the internal inspection, which found no evidence of bat access to the loft areas.

4.2 PRA Results

- 4.2.1.1 Overall, the building was assessed as having 'low potential' to support roosting bats.

External

- 4.2.1.2 The building is constructed of brick, with a low-pitched tiled roof and several features that could offer potential roosting opportunities. It is currently in moderate condition, exhibiting only minor signs of deterioration and damage.
- 4.2.1.3 Three Potential Roosting Features (PRFs) were recorded during the external inspection of the building, all located along its western aspect.
- 4.2.1.4 The northernmost PRF comprises a damaged light fixture that has partially detached, leaving an opening into the soffit board it is mounted to.
- 4.2.1.5 A PRF was also noted at a gap between a corner fascia board and the guttering. Although inspection was limited by the height of the feature, it appeared to provide access to a small crevice within the soffit board.
- 4.2.1.6 The southernmost PRF is located at the roof's gable end, where a gap in the gable verge offers access into a potential crevice.

Internal

- 4.2.1.7 The internal two-storey building comprises a disused restaurant on the ground floor, including kitchen amenities and seating areas, as well as an indoor children's play space. The children's play area features high metal beam ceilings, while the remainder of the ground floor has flat plaster ceilings.
- 4.2.1.8 The first floor comprises a vacant apartment space in moderate condition, with plaster ceilings throughout.
- 4.2.1.9 The loft spaces contain exposed wooden beams, which could provide potential roosting opportunities; however, no signs of bat activity such as droppings or insect wings were observed during the survey.
- 4.2.1.10 Overall, the building, including the internal loft spaces, was assessed as being in moderate condition.

5 Emergence Survey Results

- 5.1.1.1 As a result of the PRA, one dusk emergence survey was recommended and subsequently instructed.
- 5.1.1.2 The dusk emergence survey was conducted under optimal survey conditions.

5.1.2 Building 1

- 5.1.1.1 No bat emergences were recorded from any of the identified PRFs on Building B1 during the survey.
- 5.1.1.2 Overall bat activity across the site during the survey was very low. Three surveyors were positioned near to the identified PRFs along the western aspect of the building.
- 5.1.1.3 The first bat activity was recorded at 19:25 by SP3 and at 19:26 by SP2, approximately one minute after sunset, comprising a noctule detected acoustically but not visually observed by either surveyor. No further activity was recorded by SP1 (which remained inactive throughout the survey) or SP2 (limited to the single noctule detection). All subsequent activity was confined to SP3, where occasional commuting passes of noctule and common pipistrelle were detected, with the final observation at 20:54.
- 5.1.1.4 Visual observations of activity at SP3 were limited to individuals commuting along the woodland edge to the south of site. These movements appeared to originate from the direction of the adjacent hotel, where further woodland habitat is present to the east.
- 5.1.1.5 Based on the absence of emergences recorded and the overall very low levels of commuting activity on site, it is assessed that Building B1 does not support a bat roost.

6 Assessment & Recommendations

6.1 Impact Assessment

- 6.1.1.1 No bat emergences were recorded from the surveyed B1 during the dusk emergence survey, alongside very low levels of bat activity recorded overall. Therefore, it is assessed that there is likely absence of roosting bats within B1.
- 6.1.1.2 The proposed refurbishment of the on-site building can proceed without the requirement for further survey effort or ecological consideration in relation to roosting bats.

6.2 Lighting Mitigation

- 6.1.1.1 All bats have some degree of sensitivity to artificial, night-time lighting. Introducing artificial lighting to areas that are not currently illuminated may sever important bat flight lines and discourage bats from using roost provisions. It is recommended external lighting is not to be provided on the building to ensure roosting bats are not impacted by introduced lighting.
- 6.1.1.2 It is advised that a light mitigation plan is produced to assess the pre- and post-development changes in lighting and to advise on an appropriately sensitive lighting scheme as part of the development.

7 References

Collins (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (Fourth Edition). The Bat Conservation Trust, London.

CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.

English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1 – Relevant Legislation

Bats

All species of bat are listed on Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of *The Conservation of Habitats and Species Regulations 2017*, making them *European Protected Species*. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb any such animal, including in particular any disturbance which is likely to:
 - impair its ability to survive, breed, or rear or nurture their young;
 - impair its ability to hibernate or migrate.
 - affect significantly the local distribution or abundance of that species; or
- damage or destroy a breeding site or resting place of any such animal; or
- intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat (*Rhinolophus ferrumequinum*)
- Lesser horseshoe bat (*Rhinolophus hipposideros*)
- Bechstein's bat (*Myotis bechsteini*)
- Barbastelle (*Barbastella barbastellus*)
- Greater mouse-eared bat (*Myotis myotis*)