

St Patrick and St George
Roman Catholic Church
AT 0 083
Tidworth Garrison

Bat Dusk Emergence Survey

Version 1 dated 8th October 2025

Report for:

Mr. Lee Penny
Project Manager
Aspire Defence Services Ltd
Aspire Business Centre
Ordnance Road
Tidworth
SP9 7QD

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Approved for issue	Name	Signature	Date
	Jonathan Taylor BEng(Hons) PgDip MSc MCIEEM		08/10/2025

J Taylor Ecology Consulting 4 Testbourne Court Whitchurch Hampshire RG28 7HZ	Phone 01256 892640 Email jonathan@jtaylorecolgy.co.uk Website www.jtaylorecolgy.co.uk
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	Print Name	Position	Signature	Issued to:
Author	Jonathan Taylor BEng(Hons) PgDip MSc MCIEEM	Principal Ecologist		Client Mr. Lee Penny Project Manager
Checked by	Ellie Gollop BSc(Hons) PgCert	Consultant Ecologist		

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1. Introduction

1.1 Background

- 1.1.1 J Taylor Ecology Consulting were commissioned by Aspire Defence Services Limited to conduct a series of bat surveys on St Patrick and St George Roman Catholic Church, asset AT 0 083, within Tidworth Garrison in Wiltshire. Asset AT 0 083 comprises the church and the adjoining bungalow (presbytery) and associated garage.
- 1.1.2 The requirement for a bat survey was identified following an initial Preliminary Roost Assessment (PRA) visit conducted on 8th May 2024, which identified a number of potential roost features that could be used by roosting bats, notably associated with areas of missing mortar in stonework, a missing roof tile and the ‘knapen’ system vents. Any of these features had the potential to be used by crevice dwelling bats. The main church building AT 0 083 was therefore considered to have a high likelihood of supporting roosting bats. In accordance with the guidance (Collins, J. [Ed.] 2023) buildings assessed as having a high likelihood of use should be subject to three dusk emergence surveys to ascertain the presence of roosts and characterise any roosts present.
- 1.1.3 The adjacent presbytery/bungalow and the garage building were also assessed as part of the PRA for their potential to support roosting bats. Both buildings were of more modern construction and appeared to lack any significant potential roost features, with no evidence of use by bats identified. Hence both buildings were therefore assessed as having a negligible likelihood of use by bats according to the criteria (Collins, J. [ed.] 2023), and hence no further survey work was undertaken.
- 1.1.4 The proposed work comprises of the renewal of the main church roof, along with selective repairs to the stonework, internal and external redecoration, and boiler replacement. The adjacent bungalow was subject to a prolonged water leak, and as such requires a full internal refurbishment back to bare walls along with a full mechanical and electrical replacement. The flat roof that joins the bungalow to the church will be replaced, but the pitched roof of the bungalow will remain. The wooden fascia on the single garage within the curtilage will also be replaced with uPVC.

1.2 Building Location and Context

- 1.2.1 St Patrick and St George Roman Catholic Church (AT 0 083) was located outside of the security fencing to the north-east of Tidworth Garrison, off St Patricks Avenue, Admin Triangle, Tidworth Garrison, Wiltshire, SP9 7BS (Grid Reference SU 23142 48526, w3w ///storming.deputy.possibly).

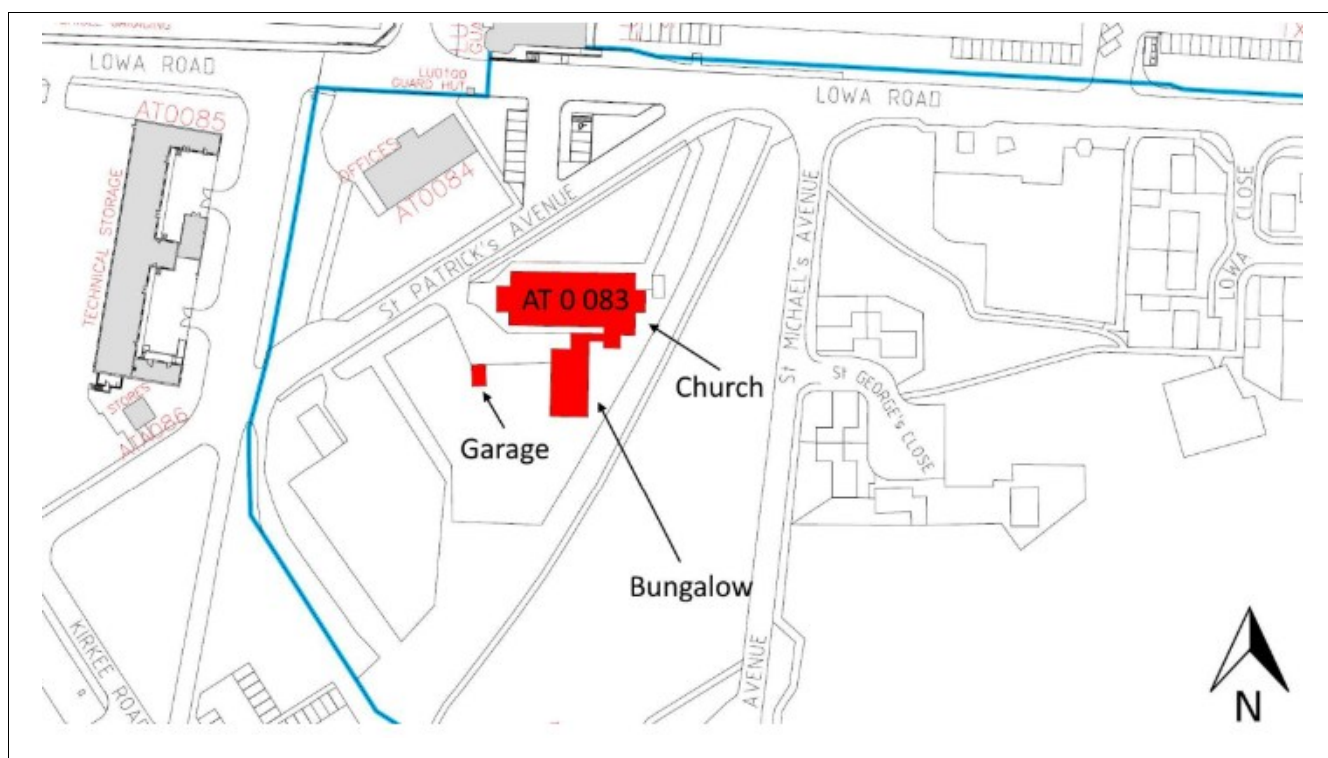


Figure 1. Location of AT 0 083 at Tidworth Garrison

- 1.2.2 The church is grade II listed (Historic England List Entry Number 1428797) and is an early Roman Catholic Garrison Church, constructed in 1912 to the design of G L W Blount. It is an early example of a place of worship constructed using a steel frame and using the developing “knapen system” for ventilation. The building uses a reinforced concrete steel finished in flint, with a graduated pitched slate roof to the nave and the aisles, with slate tiles also covering the pyramidal tower.

- 1.2.3 The attached bungalow was constructed as a presbytery c1970, and is joined to the church through a flat roof connecting corridor. The bungalow was of standard brick construction of the period, with a single gabled pitched roof covered in profiled concrete roofing tiles. Built at the same time of similar construction was a small single garage, located to the west of the bungalow. The church building was located centrally within the triangular plot, with the bungalow extending to the south, surrounded by managed amenity grassland and scattered semi-mature trees. The buildings are within a largely urban area, with Tidworth Garrison to the west and south, and a residential area to the north and east.



Photograph 1. General view of the northern elevation of the church and tower.



Photograph 2. Eastern elevation of the adjoining bungalow (presbytery)

1.3 Pre-Existing Information

- 1.3.1 Prior to the Preliminary Roost Assessment (J Taylor Ecology Consulting 2024), no bat survey work had been conducted on building AT 0 083 and the building was not listed on the TidnBul Restricted Areas (Protected Species) Register.

1.4 Legislation

- 1.4.1 All seventeen species of bat, their roosts and resting places are protected in the UK under Schedules 5 & 6 of the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017.
- 1.4.2 The relevant sections of this legislation make it an offence to deliberately take, injure or kill a wild bat, intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats, damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time), possess or advertise/sell/exchange a bat of a species found in the wild in the EU (dead or alive) or any part of a bat, or intentionally or recklessly obstruct access to a bat roost. Offences under this legislation carry a maximum penalty of imprisonment for up to six months and/or a fine not exceeding Level 5 on the standard scale (currently up to £5000), or both.
- 1.4.3 Causing 'damage' to a roost, even when the animal is not present, is an absolute offence, with no defences available in law. Disturbance however is only considered an offence when caused intentionally or recklessly. A person would be acting recklessly if they could reasonably have been expected to foresee that an operation could cause disturbance or harm to a protected species but took no action to assess the risk and consider what to do about it.

1.5 Personnel

- 1.5.1 The project was designed and managed by Principal Ecologist Jonathan Taylor BEng (Hons) PGCert MSc MCIEEM, who also undertook the PRA and nesting bird appraisal. Jonathan has over 25 years' experience as a professional ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He holds a Natural England Class Licence for bats (2019-39970-CLS-CLS) and frequently designs and implements mitigation under European Protected Species Development Licences. As a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), Jonathan adheres to the Institute's Code of Professional Conduct and professional ethics and maintains a standard of knowledge and experience in accordance with the CIEEM Continuing Professional Development Policy.
- 1.5.2 The dusk emergence surveys were led by Ellie Gollop BSc PgCert, who has over 6 years' experience as a professional ecologist and holds a Natural England Class Licence for bats (2025-12605-CL17-BAT). Ellie was assisted by experienced bat surveyors Imogen Taylor BA (Hons), Jolene Orwolski BSc, Adam Young (Dip Arb L4, TechArborA) and Craig Brakes PhD.

1.6 Purpose

- 1.6.1 The purpose of the bat emergence survey was as follows.
- To gain further and up to date information on any possible use of the building by bats.
 - Where bats are identified, gather comprehensive survey information, including the species present, number, type of roost and any other relevant information.
 - To assess the value of the building for roosting bats, and to conduct an updated impact assessment to determine the likely impact the proposed work would have on any bat species that may be present.
 - To identify any associated potential ecological constraints relating to bats arising from the proposed work, and identify appropriate mitigation measures and determine the necessity for a European Protected Species Mitigation licence to derogate from the legislation protecting bats.

2. Methodology

2.1 Dusk Emergence Survey

- 2.1.1 The bat dusk emergence surveys were conducted in accordance with the guidance included in the Bat Conservation Trust Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th edition (Collins, J. [Ed.] 2023) and the Bat Workers Manual (Mitchell-Jones & McLeish, 2010). In accordance with the recognised guidance, for a building assessed as having a moderate likelihood of use by bats and a confirmed roost three visits are required. These should comprise dusk surveys supported by night vision aids (NVAs).
- 2.1.2 Four surveyors were positioned at locations to view all elevations of the building which will be impacted by the proposed works. Clear survey zones were established for each surveyor to avoid double counting or overlap (Figure 2). The surveyors were positioned close enough to the building to identify late emerging or quiet calling species with particular focus on potential roost features that were identified during the PRA.

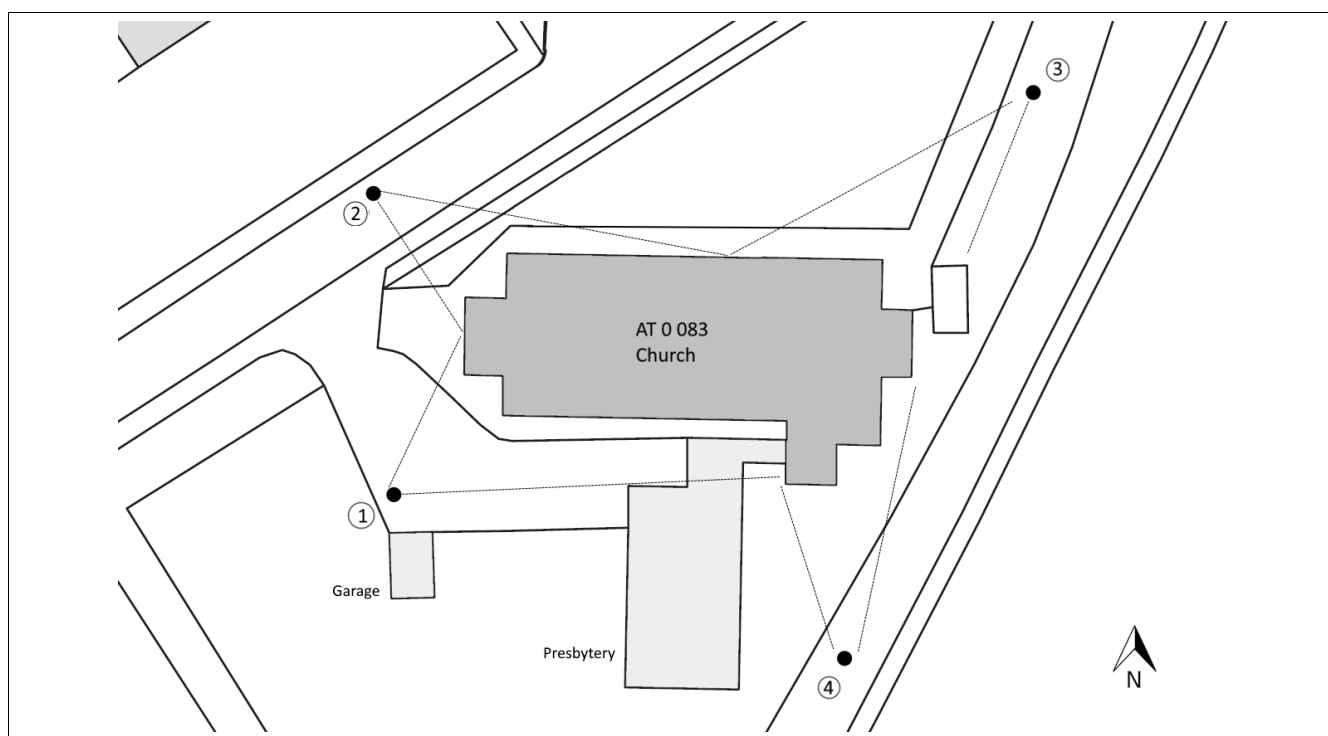


Figure 2. Surveyor location and field of view.

- 2.1.3 Each surveyor was equipped with a Wildlife Acoustics Echo Meter Touch Pro 2 full spectrum bat detector attached to an Android device, or an Elekon Bat Logger M2 detector. All echolocation calls were recorded, with species identified in the field where possible and subsequently analysed with Kaleidoscope Pro software to confirm the species observed and type of activity where needed. The parameters were compared to those published within British Bat Calls - A Guide to Species Identification (Russ, 2012) and Social Calls of the Bats of Britain and Ireland (Middleton et al., 2014).
- 2.1.4 In addition, each surveyor was supported by either a Canon XA/XF series infrared digital camcorder with infrared recording, or a Pixfra Arc PFI-A613 Ecology Thermal Monocular. To supplement the infrared digital camcorders, wide-angle high-power LED array illuminators were used and set to 850nm wavelength, which is below the human visible spectrum and not visible by bats. The cameras were focussed on the same viewpoints as the surveyors.
- 2.1.5 Each surveyor was supplied with a plan of the site on which to mark bat activity. The following information was recorded for any bats seen or heard: species, time, behaviour (whether it was feeding, commuting, social calling or swarming) and if seen, direction of flight, and if it emerged or re-entered the building. Behaviour was identified by flight patterns and call characteristics as recorded. Surveyor and camera locations are shown on Figure 2 in the following section. The equipment set up for each surveyor location and the corresponding still image taken from the respective infra-red camera at the darkest point of the survey is provided in Appendix 7.1.
- 2.1.6 At the end of the survey the lead surveyor collated all survey information. All surveyors reviewed their own camera footage as soon as possible after the survey, with all suspected or possible emergences checked. In addition, automated motion detection software (www.motionsense.co.uk) was used where further analysis was considered desirable or there was a risk that the surveyor may have been unable to observe fully, such as when vision was impacted by objects or bright lights.

2.2 Timing of Surveys

- 2.2.1 The dusk emergence surveys were carried out during the time considered to be the active bat period. As bats are largely dormant over the winter period, bat surveys can only be conducted once they are sufficiently active to be detected. The bat active season is between May and September inclusive, though for a building with a maternity roost, ideally the surveys should be conducted early as possible in the season (May to August inclusive) to capture the breeding period and to allow time for further surveys should they be needed.
- 2.2.2 The latest guidance (Collins, J. (Ed.), 2023) also requires consideration of the local climatic conditions, including local trends in bat activity, meaning that a cold spring may result in the commencement of emergence surveys being delayed until June. The dusk emergence surveys were carried out on 20th May, 16th June and 14th July, and considered to have been undertaken during the optimum bat survey period.
- 2.2.3 Weather conditions (temperature, wind speed, cloud cover, rainfall in the last hour) were also recorded at the start and end of each survey. The dusk surveys commenced at least 15 minutes before sunset and lasted for a minimum of 90 minutes after sunset, covering the typical emergence period for UK bat species.
- 2.2.4 Details of the timings of the emergence surveys are given in Table 1 below.

Table 1. Survey Timing Information

	Date	Start	End	Sunset/Sunrise
Dusk Emergence	20 th May 2025	20:40	22:50	20:58
Dusk Emergence	16 th June 2025	21:05	23:00	21:24
Dusk Emergence	14 th July 2025	21:00	22:55	21:18

- 2.2.5 A summary of weather conditions is given in Table 2. The weather conditions on the survey visits were considered optimum for bat activity and meet the recommended requirements (Collins, J. [Ed.] 2023). Insects (*Chironimidae* and *Ceratopogonidae*) were noted flying during all survey visits.

Table 2: Weather Conditions

		Temperature (°C)	Cloud cover (%)	Wind (beaufort)	Rainfall
20 th May 2025	Start	15	100	1	Dry
	End	14	100	1	Dry
16 th June 2025	Start	22	10	1	Dry
	End	20	0	1	Dry
14 th July 2025	Start	19	0	2-3	Dry
	End	17	0	1	Dry

2.3 Limitations

- 2.3.1 Conditions were good during the survey visits. The minimum temperature recorded during the surveys was 14 °C, which is above the minimum required for bat activity surveys (approximately 8 °C). Hence the conditions are considered to be suitable for the purposes of the survey.
- 2.3.2 It should be acknowledged that bats are highly mobile and may move between different roost sites throughout the year. In addition, new features such as cracks, crevices or openings may appear at any time. Bats need different roosting conditions at different times of the year, and they will often move around to find a roost that meets their needs. Hence the results of this survey and assessment are considered to be valid only at the time the survey was conducted.
- 2.3.3 For the aerial MEWP inspection (Section 3.5) it should be noted that due to the limited boom reach, the inspection was limited to the tower, the southeast and southwest corners of the church and the southern roof of the porch.

3. Bat Survey Results

3.1 Dusk Survey Results 20th May 2025

- 3.1.1 The first survey identified activity from noctule (*Nyctalus noctula*) and common pipistrelle (*Pipistrellus pipistrellus*), along with occasional passes by individual serotine (*Eptesicus serotinus*) and barbastelle (*Barbastella barbastellus*) bats. No bats were observed emerging from the building.
- 3.1.2 The first bat (common pipistrelle) recorded was 10 minutes after sunset at 21:09. This was heard but not seen by Surveyor 1, and hence was some distance from the site. A commuting noctule was also recorded at 21:09 by surveyor 4, commuting high across the site. Shortly afterwards at 21:13 a common pipistrelle was seen by Surveyor 2 and also heard by Surveyor 1 foraging across the western end of the church and along the adjacent road to the east. This was followed by further foraging heard by Surveyor 1 at 21:15 to the southwest of the church, with some brief foraging by a single common pipistrelle around the garden and trees to the rear of the presbytery. There was a brief break in the foraging until 21:17, when a single common pipistrelle was recorded foraging in the area until 21:40.
- 3.1.3 Following on at 21:25, surveyor 4, located on the adjacent public footpath beyond the southeastern boundary of the church, recorded a single pass by a serotine, commuting along the footpath. This was followed by a single common pipistrelle foraging around the area between the boundary and the presbytery, adjacent the southeast elevation of the church. Surveyor 2, positioned opposite the northwestern end of the church, observed a series of individual common pipistrelle commuting along the road, both in a north easterly and south westerly direction, recorded at 21:23, 21:25, 21:31 and 21:40. At 20:29, surveyor 3 in the rear churchyard noted a common pipistrelle foraging near boundary trees. At 21:32, both surveyors 3 and 4 detected a brief serotine pass. One minute later, surveyor 4 heard (but did not see) a barbastelle commuting along the footpath, indicating it was out of the study area. For the remainder of the survey, activity from just common pipistrelle was recorded. Brief foraging occurred around the garden of the presbytery, and along the footpath to the southeast of the church. The last bat heard was a distant common pipistrelle at 22:09.

3.2 Dusk Survey Results 16th June 2025

- 3.2.1 There were similar levels of activity recorded during the second survey, although soprano pipistrelle (*Pipistrellus pygmaeus*) was recorded in addition to common pipistrelle, noctule and serotine bats. Again, no bats were observed emerging from the building.
- 3.2.2 The first bat recorded was a soprano pipistrelle observed by surveyor 1, commuting fast past the northern part of the building to the west at 21:36. A short time later a common pipistrelle was recorded by surveyor 2 to the northwest of the building, commuting past the trees to the west of the church. All bats recorded for the next 15 minutes were heard but not seen by all surveyors, with the bats all outside of the field of view away from the area around church. At 21:52, surveyor 2 observed a common pipistrelle foraging by the roadside trees for about a minute before it flew north. At 21:56, surveyor 1 noted a common pipistrelle foraging around the garden and rear trees of the presbytery for over two minutes. At 21:59, surveyor 4 recorded a single serotine bat along the footpath southeast of the church. At 22:00, surveyor 1 again reported extended foraging by a common pipistrelle in the same garden and trees, with surveyor 4 also noting prolonged activity over the presbytery and southern elevation. It is likely this was the same bat foraging in the area for approximately 20 minutes.
- 3.2.3 A noctule bat was recorded by surveyor 3 commuting past the site at 22:16, followed by a further period of foraging from a common pipistrelle recorded by surveyor 1 at 22:31. A further pass by a noctule bat was recorded by surveyor 4 at 22:41. Again, occasional passes by common pipistrelles were recorded for the remainder of the survey, mostly heard but not seen.

3.3 Dusk Survey Results 14th July 2025

- 3.3.1 There were slightly higher levels of activity during the third survey. Again, the activity recorded was by common pipistrelle, soprano pipistrelle, serotine and noctule bats. Again, no bats were recorded or observed emerging from the building.
- 3.3.2 The first bat recorded was a noctule bat commuting high across the site, recorded by surveyors 1 and 2. Surveyor 4 located on the footpath to the rear south east of the church, recorded a faint pass by soprano pipistrelle at 21:25, followed by a commuting noctule at 21:36. The first bat visually observed was at 21:37 by surveyor 4, being a common pipistrelle commuting along the footpath. Shortly afterwards at 21:40, surveyor 1 recorded a common pipistrelle commuting along the southern elevation of the church, followed by a period of intermittent foraging in the rear garden of the presbytery until 21:54.
- 3.3.3 At 21:47 surveyor 3 recorded a single common pipistrelle flying along the eastern boundary of the church, followed by a further period of foraging at 21:54. Surveyor 4 recorded a single brief pass by a serotine along the footpath at 21:54. At 21:57 surveyor 2 along the roadside recorded a commuting common pipistrelle flying along the rear in an east to west direction. The last bat recorded was at 22:47 by surveyor 2, which was distant commuting common pipistrelle.

3.4 Flight Path Results

3.4.1 Figure 3 below details the locations of the surveyors and NVA during the surveys and main identified flight paths and foraging areas recorded during the three dusk emergence surveys.

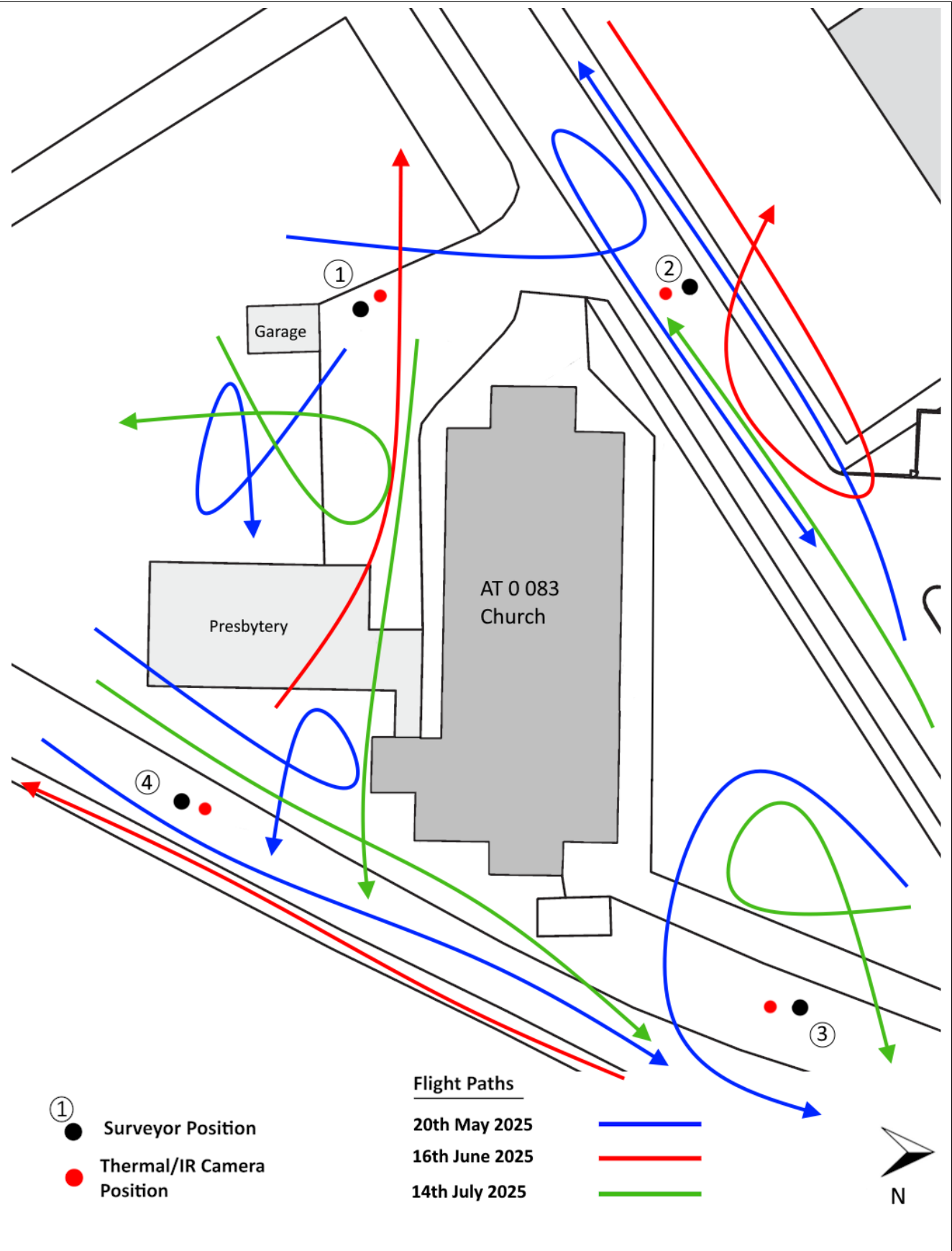


Figure 3. Main flights paths observed during the three dusk emergence surveys.

3.5 External Aerial MEWP Inspection

3.5.1 During fine weather on the 2nd October 2025 the exterior of the building was inspected via a Mobile Elevating Work Platform (MEWP) to further explore potential roost features (PRFs) and view roof areas which had a limited view from ground level. The main purpose of the inspection was to investigate the area above the flat roof of the pump room (photograph 3), where scattered bat dropping had been identified during a subsequent visit to the site on 22nd July 2025 (photograph 4), and to further assess the knapen vents. This was to give further confidence in the results of the bat dusk emergence surveys.



Photograph 3. Location of the pump room on the eastern end of the southern elevation of the church



Photograph 4. Bat dropping on slate roof (22nd July 2025).

3.5.2 The areas above the pump room where scattered bat dropping had been identified was inspected and found to have no lifted or missing tiles and was well sealed all around. There were no opportunities around the stained-glass window, and the stonework on the southern face was in good condition and intact. Away from this area at the top of the east wall of the tower there was a crevice above the rain drainage hopper (photograph 5), which was suitable as a roost feature, but with no evidence of use. The southern elevation of the tower had a pipe coming from the stonework (photograph 6 – upper red circle). It was not possible to see the state of the surrounding stonework, but due to the age of the pipework, it is feasible it has degraded and resulted in a crevice.

3.5.3 Where the main roof met the southeast corner of the tower a broken slate was identified (photograph 6 – lower red circle), but with no evidence of bat use. Another broken slate was seen on the southern roof (photograph 7), but again with no bat evidence. The eastern most ridge tile of the main roof was slightly raised on both the north and south (photographs 8 and 9), again with no evidence of use by bats.



Photograph 5. Crevice above rain drainage hopper on north elevation of the tower.



Photograph 6. Pipe in south wall of the tower and broken slate at in the main roof at the southwest corner of the tower wall



Photograph 7. Broken slate on the southern roof.



Photograph 8. North side of the raised eastern ridge tile on the main roof.

- 3.5.4 The MEWP allowed for a more thorough examination of the knapen vents above the vicinity of the bat droppings identified during the PRA and on subsequent site visits (including this on the 2nd October 2025). An endoscope was used to establish the internal dimensions and conditions of the vents to help inform judgement on their potential as roost features. The tubes behind the vent covers were found to be approximately 12 mm diameter and 80 mm in length, placing doubt over the ability of the bats to turn within the space leading to them having to emerge backwards which would be considered usual. The vents did not lead to further crevices or voids within the fabric of the building. Some of the knapen vents had collapsed and filled with debris or had vent covers that fitted too tightly to allow a bat to enter. Many others were filled with tunnel style spider webs. A small number were clear of cobwebs and comparatively clean, including one above the droppings found on the pump room at the southeast of the church, however none of the knapen vents had evidence of bats in the form of staining or droppings inside or on the stonework below.
- 3.5.5 While on site a dead brown long eared bat (*Plecotus auritus*) was found on the ground under a mature tree 10 m to the west of the church porch (photograph 10). It did not have any obvious signs of injury, but red blisters were noted on its face. It was still soft and seemed to have died recently. It was handled wearing gloves and bagged to be sent to the Animal and Plant Health Agency (APHA) for passive rabies surveillance testing.



Photograph 9. South side of the raised eastern ridge tile on the main roof.



Photograph 10. Bagged brown long eared bat found under a tree 10m to the west of the church porch.

4. Evaluation and Requirements

4.1 Bats: Evaluation – Presence/Absence

- 4.1.1 No bats were observed or recorded emerging from the building during the dusk emergence survey.
- 4.1.2 Following the observation of a small number of bat droppings on the flat roof of the pump room located at the eastern end of the church's southern elevation, and the presence of knapen vents into the wall cavity, an aerial inspection was undertaken using a MEWP by a bat-licensed ecologist to give further confidence in the negative dusk emergence survey results. The inspection revealed no evidence of a bat roost above the pump room, and detailed assessment determined that the knapen vents were unsuitable for bat habitation. While the aerial survey identified a limited number of potential roosting features (PRFs) elsewhere on the building, there continued to be no indication of active use by bats.
- 4.1.3 The dusk emergence survey recorded moderate levels of bat activity, with higher activity observed to the south and east of the building. Bats were noted foraging in the presbytery garden and commuting along the adjacent public footpath. Some activity also occurred on St Patricks Road, which appeared to be used as a commuting route. Activity remained consistent throughout the three survey visits. Given no evidence of a roost was identified during the aerial inspection, it was concluded that the scattered droppings found on the roof of the plant room at the eastern end of the southern elevation most likely resulted from foraging bats passing by, based on the significant foraging activity recorded in the immediate area.
- 4.1.4 Of the bats recorded, common pipistrelle, soprano pipistrelle and serotine commonly roost in buildings, with noctules preferring to roost in mature trees. On all three surveys, pipistrelle bats were first recorded within their median emergence time, suggesting they were roosting in proximity of the site. Common pipistrelle bats are known to roost within MO 0 101 to the south, with St Michael's Church a short distance to the southeast likely to provide suitable habitat for roosting bats.
- 4.1.5 The results from the PRA indicated that the building was not considered suitable for use by hibernating bats. A small plant room was present below the first floor level, however this was warm and there were limited suitable access points for bats, with no evidence of bats identified.
- 4.1.6 Hence, given the additional survey work conducted and together with the results of the dusk emergence surveys, in accordance with (Collins, J. [Ed.] 2023) the building is not considered to support a bat roost.

4.2 Site Assessment and Potential Impacts

- 4.2.1 Given that the results of the three dusk emergence surveys and subsequent aerial inspection were conducted in accordance with the guidance (Collins, J. [Ed.] 2023), the building is not considered to be a bat roost and hence bats are considered unlikely to be present and impacted by the proposed works.
- 4.2.2 However, the results of the survey indicate that there are significant levels of foraging and commuting activity around the building by common species of bats. In addition, although not recorded during the dusk emergence survey, a brown long-eared bat was found dead under a nearby tree, confirming that brown long eared bats are also present in the area. Brown long eared bats are a roof void dwelling species, predominantly roosting within the roof spaces of buildings.
- 4.2.3 Whilst the surveys indicate that bats are not roosting in the building, most bat species use different roosts at different time of the year, and often shift their roost sites, using a combination of roosts the local area (Altringham, 2003). In addition, new roosts can be created at any time, as buildings change or deteriorate. It is therefore recommended that a precautionary approach is taken during the work.
- 4.2.4 It was noted during the survey that the greatest activity was along the southern and eastern part the church, away from sources of artificial lighting, with notably less activity along the road. Artificial lighting can affect the behaviour of bats (Boldogh et al. 2007, Stone 2015). Illumination of foraging areas can prevent or reduce foraging activity causing bats to pass quickly through the lit area or avoid it all together. Pipistrelle, noctule and serotine species are more tolerant of low levels of artificial light (Stone 2012, 2015) and hence able to take advantage of the clusters of insects that congregate around light sources at night, whereas Plecotus and Myotis species are much more sensitive and hence put at a competitive disadvantage as they are less able to forage successfully and efficiently (ILP/BCT 2023).
- 4.2.5 Should any changes to the existing external artificial lighting be proposed, or new lighting installed, there is the potential for a significant impact on the use of the area around the building by foraging and commuting bats.

5. Required Mitigation

5.1 Recommendations for further work

5.1.1 No further ecological survey work is considered necessary in relation to determining the impacts of the proposed work on bats.

5.2 Mitigation Overview

5.2.1 Given that no bats were recorded emerging from the building, the proposed work is considered unlikely to result in impacts or bats or their roosts. As such, there is no requirement to apply for a European Protected Species Mitigation Licence.

5.2.2 However, as a precautionary measure, the following mitigation strategy must be implemented to minimise the potential for disturbance to bats that were identified using the wider area for foraging or commuting during the duration of the work.

5.3 Mitigation Strategy

5.3.1 The following precautionary mitigation strategy should be followed for the duration of the works:

- Prior to the commencement of works, a site briefing/tool box talk must be conducted by a qualified ecologist on the contents of this mitigation strategy. The site briefing must be given to the contractors site agent and regular site staff, and must include the legal protection afforded to bats, measures that will be used to protect bats and what to do in the unlikely event that a bat is found (see below).
- All subsequent contractors working on the site should then be briefed on bats, as part of the formal site induction.
- This bat survey report and mitigation strategy should be handed over to the contractor, and the relevant requirements incorporated into the RAMS for the work – notably the actions to be taken should a bat be identified during the work.
- As significant levels of foraging and commuting activity was recorded within the vicinity of the building to minimise any disturbance, work must only be undertaken in daylight hours (between sunrise and sunset) when bats are active (between March and October inclusive).
- All temporary artificial lighting, including within the building, must be switched off when not in direct use, and never left on overnight.

5.4 Unexpected discovery

5.4.1 If individual bats are discovered unexpectedly then the following steps must be taken:

- Works to that building/structure will stop immediately. The Aspire Helpdesk should then be informed who will contact the ADSL Project Manager and Health, Safety & Environmental Advisor. If an ecologist is not on site, they must be contact immediately for further advice. The bat must not be exposed or be encouraged to fly out of the roost on its own accord.
- Any underweight or injured bats will be taken into temporary care by an experienced bat carer and looked after until such time that the bat can be transferred to a suitable replacement roost at the same site, or weather conditions are suitable for release at the same site.

5.5 Bats and Lighting

5.5.1 The building currently supports minimum artificial lighting, with no notable artificial lighting along the southern elevation. It is considered essential that the southern elevation and presbytery garden would benefit from remaining as dark as possible to provide continued opportunities for foraging and commuting bats. If additional lighting is required elsewhere on the building, energy efficient directional luminaires with a hood, that allows the light to be directed solely downwards to where it is needed should be used. The light could then be directed to the paved areas and footpaths only, rather than illuminating forwards, upwards or to the side where it is not needed.

5.5.2 Any artificial lighting installed must be in line with the Bat Conservation Trust and Institution of Lighting Professionals guidance on bats and artificial lighting (Bat Conservation Trust, 2023). This would be of benefit to a range of nocturnal and crepuscular species, in addition to bats.

5.6 Bat Dusk Emergence Survey Validity

5.6.1 Owing to the highly mobile nature of bats, and the inherently unpredictable nature of their roosting habits, it is considered that this assessment will be valid for 12 months. The 12 month period is considered acceptable where the condition(s) of the building on site remain unchanged since the survey and the proposals for the site are unchanged.

5.6.2 The dusk emergence survey only provides a 'snapshot' in time. Where no evidence of bats has been identified, it is not possible to have complete certainty that bats are not present, rather, that there was no indication of bats at the time of survey.

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7. Appendix

7.1 Equipment Setup and Infrared Imaging

7.1.1 The equipment set up for surveyor locations is shown below (photographs 11, 13, 15 and 17), along with the corresponding still image taken from the respective infra-red camera at the darkest point of a survey at each location (photographs 12, 14, 16 and 18).



Photograph 11. Equipment set up (Surveyor 1), during the first dusk survey on 20th May 2025



Photograph 12. IR image of the south west (Surveyor 1), during the first dusk survey on 20th May 2025



Photograph 13. Equipment set up (Surveyor 2), during the first dusk survey on 20th May 2025



Photograph 14. Thermal image of the north western elevation (Surveyor 2), during the first dusk survey on 20th May 2025



Photograph 15. Equipment set up (Surveyor 3), during the second dusk survey on 16th June 2025



Photograph 16. IR still image of north eastern elevation (Surveyor 3), during the second dusk survey on 16th June 2025



Photograph 23. Equipment set up (Surveyor 4), during the third dusk survey on 14th July 2025



Photograph 24. IR still image of the south eastern elevation (Surveyor 4), during the third dusk survey on 14th July 2025

J Taylor Ecology Consulting 4 Testbourne Court Whitchurch Hampshire RG28 7HZ	Phone 01256 892640 Email jonathan@jtaylorecolology.co.uk Website www.jtaylorecolology.co.uk
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