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Contract	Doon Convent Bat & Swift
Client	Healy Partners Architects
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Author	Johanna Healy
Reviewer / Sign off	Anne Mullen
Subject	Derogation License Supporting Information

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1 Introduction

1.1 Project Objective

The objective of the proposed works is the conversion / change of use of a 3-storey convent building in Doon, Co. Limerick. The building is intended to accommodate 23 no. independent community living use apartments. The proposed works include the provision of a new entrance roadway to the east side onto the main street (R505), removal of sections of boundary walls to the main street, construction of a new car park, removal of later 20th century extensions, addition of two 3-storey end block extensions, provision of a commercial kitchen on the ground floor of the proposed east block extension, provision of seating in the east ground floor wing of the convent, provision of a new door to the southern courtyard, provision of PV panels on the south-facing roof slope of the central convent block, alterations to the internal layout, repairs to the historical fabric of the building and all associated site works.

Due to the confirmed presence of a Brown Long-eared Bat and both species of Pipstrelle within the building/attic spaces of the convent, the proposed development requires a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). The roost is considered a maternity roost. The derogation application is supported by a comprehensive mitigation strategy, including the construction of a purpose-built alternative roost.

1.2 Ecology Team

Prepared by:

Johanna Healy, BSc (Hons) MSc – Ecologist

Johanna holds a BSc in Wildlife Biology and an MSc in Wild Animal Biology and has 3+ years' experience in ecological surveying, bat emergence monitoring, bat mitigation measures, and static detector analysis. She conducted the field surveys and prepared the bat report and supporting documentation for this application. Johanna has authored previous bat survey reports across Ireland.

Reviewed and Authorised by:

Dominic Tilley BSc (Hons) MSc PhD and Anne Mullen BSc MSc – Senior Ecologist and Project Manager

Dominic and Anne are senior ecologists with experience in bat ecology, licensing, and mitigation design. They each hold a bat survey licence issued by the National Parks and Wildlife Service and have overseen a number of projects involving Annex species. Dominic and Anne supervised the survey work and authorised the final report.

All survey work was conducted in accordance with the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)* (Collins 2023) and the *Bat Mitigation Guidelines for Ireland* (Marnell et al. 2022).

2 Background

The proposed activity involves the conversion / change of use of the 3-storey convent building in Doon, Co. Limerick to accommodate 23no. independent community living use apartments. The property is privately owned and has been in a state of structural decline for several years.

The site consists of the old convent building, with an old school building and other deteriorated outbuildings adjacent to the proposed works. The surrounding area also contains treelines and hedgerows, and a social farm currently in use.

The planning application for the development was submitted to Limerick City and County Council in 2024. In response, the Council issued a request for further ecological information, prompting the commissioning of bat surveys by JBA Consulting. These surveys confirmed the presence of a maternity roost of Brown Long-eared Bats within the attic of the convent.

The proposed development is consistent with national and local planning policy objectives, including rural regeneration, the reuse of vacant or derelict buildings and offering an alternative to dispersed one-off rural housing. The Limerick Development Plan designates Doon as a Level 4 Large Village, meaning it is one of the settlements identified for growth and development within the county.

Due to the presence of protected species, the proposed works require a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). The application is supported by a detailed mitigation strategy to ensure compliance with conservation legislation and the continued protection of the local bat population.

3 Proposed Works Covered by Derogation

The proposed activity involves the conversion / change of use of the 3-storey convent building in Doon, Co. Limerick. The works are necessary to make the building structurally safe and suitable for residential use. The attic space has been confirmed as a maternity roost for Brown Long-eared Bats *Plecotus auritus*. Both Common *Pipistrellus pipistrellus* and Soprano Pipistrelle (*Pipistrellus pygmaeus*) have also been recorded as emerging from the building.

The scope of works includes:

- Provision of a new entrance roadway to the east side onto the main street (R505)
- Removal of sections of boundary walls to the main street
- Construction of a new car park
- Removal of later 20th century extensions
- Addition of two 3-storey end block extensions
- Provision of a commercial kitchen on the ground floor of the proposed east block extension
- Provision of seating in the east ground floor wing of the convent
- Provision of a new door to the southern courtyard
- Provision of PV panels on the south-facing roof slope of the central convent block
- Alterations to the internal layout
- Repairs to the historical fabric of the building
- Landscaping and all associated site works

The proposed works that are anticipated to affect the roost are primarily the re-roofing works and alterations to the internal layout which will likely result in the disturbance and displacement of roosting bats, and will result in the loss of current access points. While the Brown Long-eared Bats have been recorded emerging through first and second floor windows, the observations and droppings recorded during internal inspections of the building indicate that the attics are the key area of the site for roosting bats. Both the west wing and central block attics had skylights but the darker areas (smaller enclosed rooms/areas) without light. The eastern wing had no skylight.

The proposed works are not anticipated to begin until February 2027. It is likely that minor maintenance works will be required between the time of application and commencement of the project works.

The site is situated along the R505 in Doon, Co. Limerick. It comprises the existing convent building.

The proposed activity will be carried out under strict ecological supervision and in accordance with the conditions of the derogation licence.

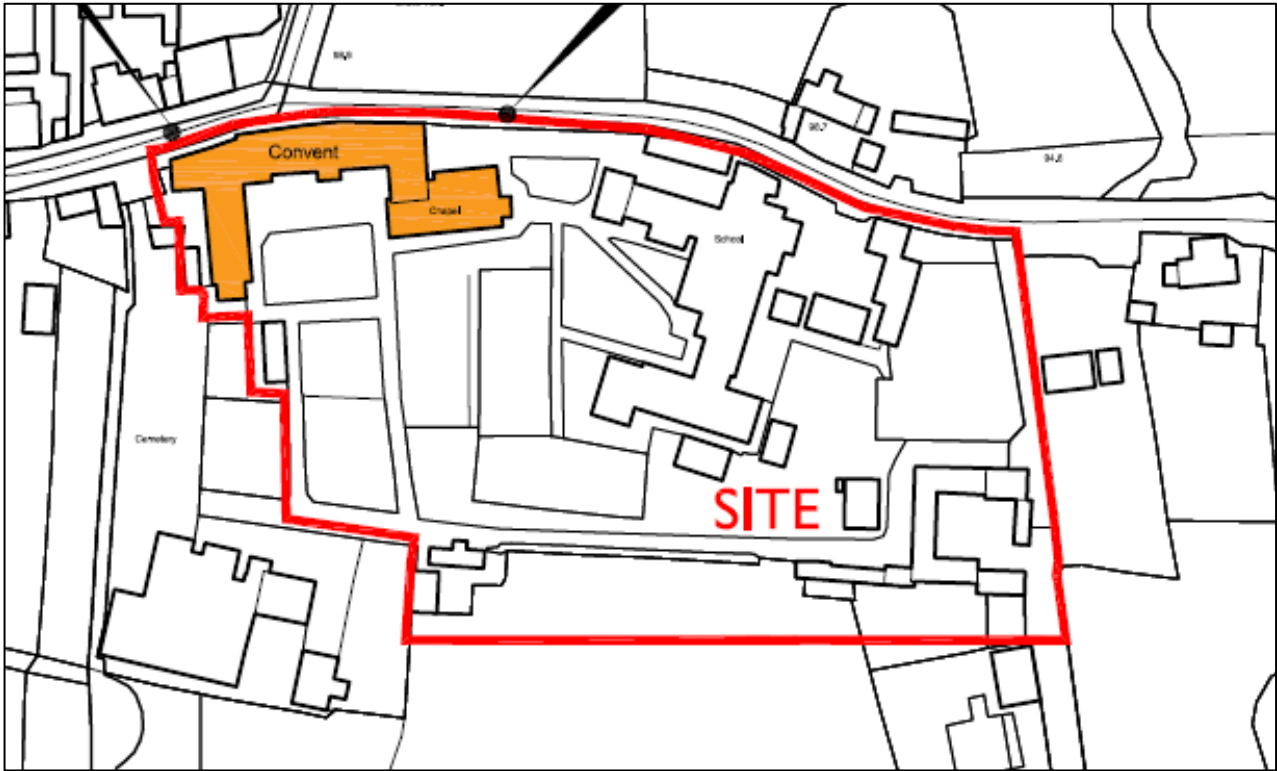


Figure 3-1: Site overview

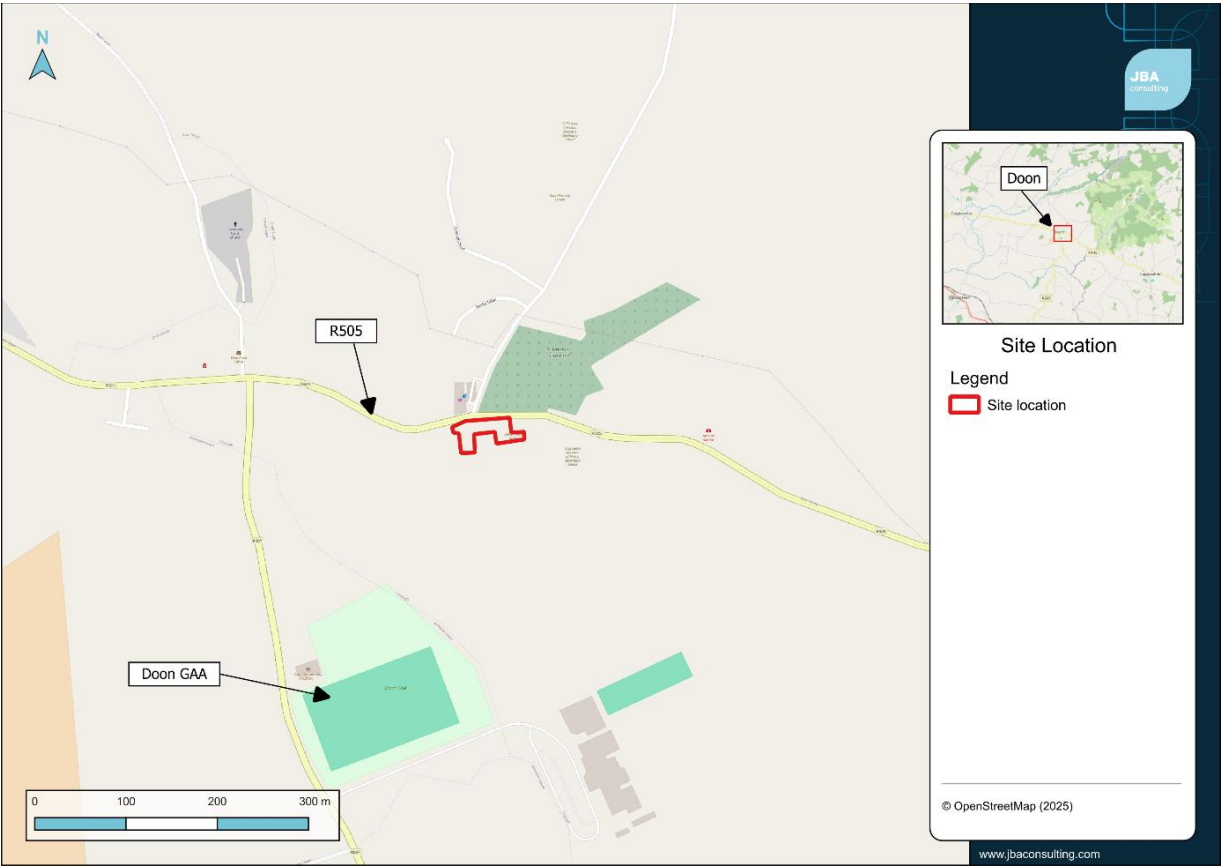


Figure 3-2: Site location

4 Ecological Surveys and Site Assessment

4.1 Pre-existing Data

Historical records from the National Biodiversity Data Centre (NBDC) and Bat Conservation Ireland (BCI) databases did not record the presence of Brown Long-eared Bats within 2km of the site. No known roosts are located within 2km of the site.

4.2 Status of Species

No known roosts for Brown Long-eared Bats have been historically recorded in the local/regional area surrounding the proposed site.

4.3 Survey Objective

The objectives of the surveys carried out were:

- To confirm the presence or absence of bat roosts within the structures on site.
- To identify the species present and assess the nature and conservation value of any roost.
- To inform mitigation measures required for the proposed development.
- To support a derogation license application under Regulation 54.

4.4 Survey Area

The survey area included:

- A historic convent building.
- The attic spaces of the convent, which were identified as the primary roosting locations.

4.5 Methodology

Surveys were conducted between March 2025 and February 2026 and included:

- **Daytime Roost Inspection (13 March):** Visual inspection of internal and external features for signs of bat activity.
- **Emergence Surveys (1 May, 18 June and 23 September):** Dusk surveys using thermal imaging and bat detectors to observe emergence behaviour.
- **Static Monitoring (13 March – 1 April; 18 – 28 July 2025; 12 – 19 February; 26 February – 3 March 2026):** Deployment of Anabat Swift detectors in the attic to record echolocation calls; followed by deployment of Anabat Swift detectors across the site to assess commuting routes from the building to inform the bat-friendly lighting plan. Follow up monitoring in February 2026 to check for hibernation activity.

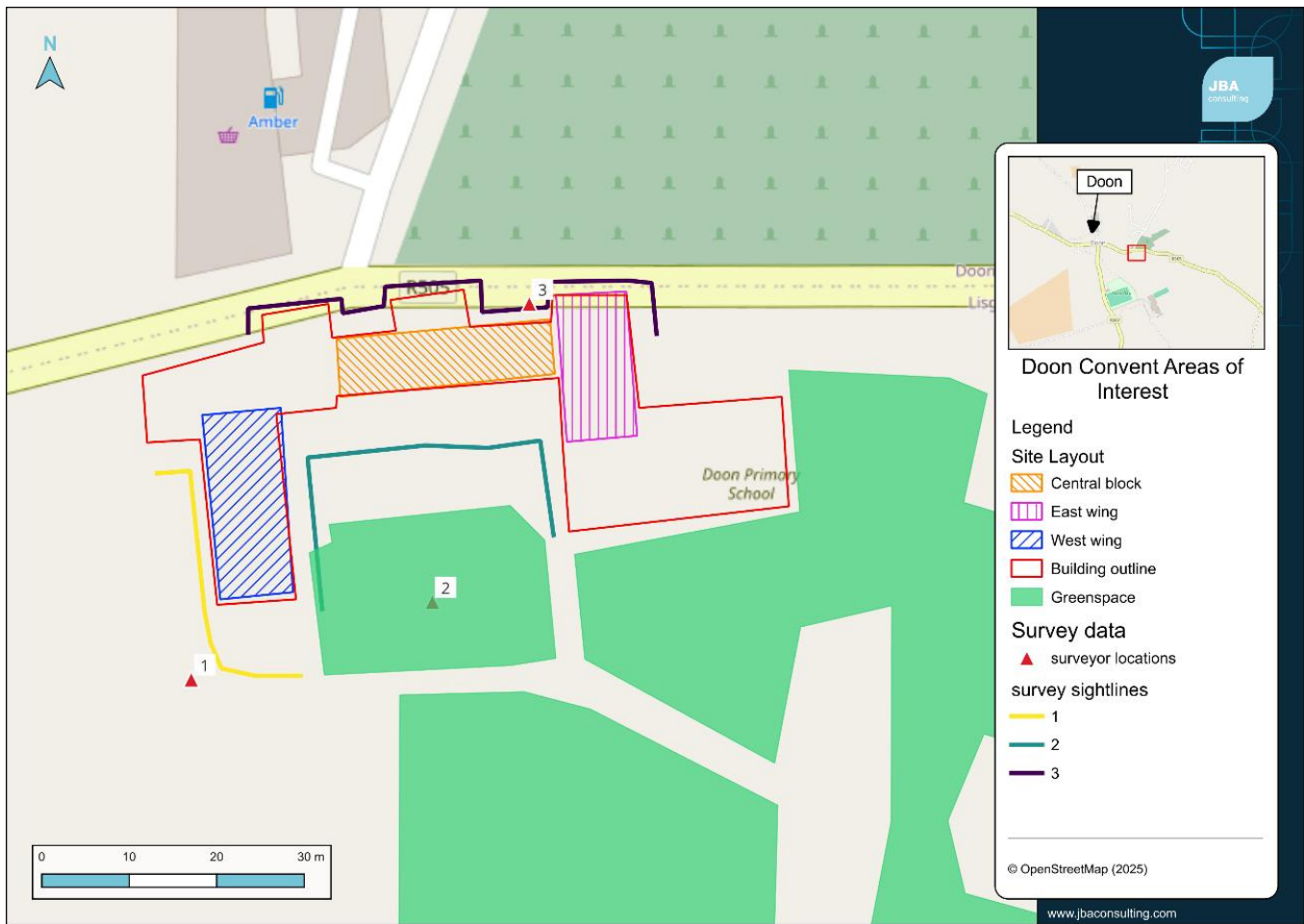


Figure 4-1: Map of all structures on site with vantage points and transects walked by each surveyor during the emergence surveys

Table 4-1: List of equipment used during surveys

Equipment used
Magenta Bat Detectors Mk5
Wildlife Acoustic Echo Meter Touch 2 Pro
Titley Scientific Anabat Chorus Static Detector
Pulsar thermal imaging device Axion 2 XQ35 pro
Red light torches

Best Practice Compliance:

- Methodology followed the Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) (Collins, 2023).
- Mitigation planning aligned with Bat Mitigation Guidelines for Ireland – V2 (NPWS, 2022).

Survey Conditions:

- Weather was clear and mild during emergence surveys.
- Equipment included Magenta Bat Detectors Mk5, Pulsar Axion 2 thermal monocular, and Anabat Chorus static detectors.

Limitations:

- One attic space was not accessible to JBA Ecologists due to safety concerns and limited access.
- Activity outside the survey period was inferred using the precautionary principle.

4.6 Survey Results

4.6.1 Overview of Survey Results

Emergence Surveys: Confirmed active use of the convent by Brown Long-eared Bats. Approximately 14 individuals were observed during the June survey during internal inspections of the attics.

Static Monitoring: Approximately 500 echolocation calls recorded, confirming regular use of the attic space. Activity was consistent across multiple nights.

Other Species: Common and Soprano Pipistrelles and Leisler’s Bats were recorded commuting and foraging across the site.

4.6.2 Emergence Survey 1 May 2025

An internal inspection of all three roosts was conducted before the emergence surveys began at sunset (c. 20:30). Red light torches were used to conduct counts of bats in each attic space. No live bats were observed on this date during internal inspections. Fresh droppings were observed in the central block attic.

The emergence survey started at approximately 21:06 at sunset and continued until 22:35. The first emergence was recorded at 21:23, with two Soprano Pipistrelles emerging from an unidentified point in the east wing. A single BLE bat was recorded emerging from a window on the first floor at 21:37. A summary of the survey is provided in Table 4-2.

One Chorus static detector was placed in the central block attic during the emergence surveys. Three species, Brown Long-eared Bat (14 calls), Leisler’s Bat (2 calls) and Soprano Pipistrelle (9 calls) were recorded during that time.

Table 4-2: Summary of emergence survey 1 May 2025

Time	Species	Location	Comments
21:23	Soprano Pipistrelle	East Wing	2 Soprano Pipistrelles emerging. Exact exit points were not observed. Flew south towards the trees behind the convent building.

Time	Species	Location	Comments
21:29 – 21:33	Soprano Pipistrelle	West Wing	6 Soprano Pipistrelles emerging
21:37	Common Pipistrelle	Central Block	2 Common Pipistrelles exiting and re-entering the building through an open window on the first floor. Observed flying around inside the building.
21:37 – 21:57	Brown Long-eared Bat	Central Block	1 BLE was observed exiting and re-entering the building through an open window on the first floor.



Figure 4-2: Emergence points for Brown Long-eared Bats (1 May 2025)



Figure 4-3: Emergence points for Soprano Pipistrelle from southern face of building (1 May 2025)

4.6.3 Emergence Survey 18 June 2025

An internal inspection of all three roosts was conducted before the emergence surveys began at sunset (c. 21:30). Red light torches were used to conduct counts of bats in each attic space. One BLE bat was observed in the east wing attic, and 13 BLE bats, including one BLE pup, were observed in the central block attic.

The emergence survey started at approximately 22:16 at sunset and continued until 23:45. The first emergence was recorded at 22:34, with a BLE bat emerging from a window on the second floor leading to the central block attic (Figure 4-4). A summary of the survey is provided in Table 4-3.

Table 4-3: Summary of emergence survey 18 June 2025

Time	Species	Location	Comments
22:34 – 22:50	Brown Long-eared Bat	Central Block	2 BLE emerging from a window on the second floor.
23:04	Common Pipistrelle	West Wing	1 Common Pipistrelle emerging from the west wing roof.
23:06 – 23:26	Brown Long-eared Bat	Central Block	9 BLE were observed emerging from a window on the second floor (4 re-entries). BLE bats were observed foraging and re-entering this window, with 2 recorded commuting towards the southeast to the area of trees behind the building.



Figure 4-4: Emergence points for Brown Long-eared Bats (18 June 2025)



Figure 4-5: Emergence points for Common Pipistrelle from southern face of convent building (18 June 2025)

4.6.4 Emergence Survey 23 September 2025

The emergence survey started at approximately 19:20 at sunset and continued until 21:20. The first emergence was recorded at 20:19, with a BLE bat emerging from the same window on the second floor with emergence recorded during previous surveys (4.6.3_Emergence Survey 18 June 2025). A summary of the survey is provided in Table 4-4.

Table 4-4: Summary of emergence survey 23 September 2025

Time	Species	Location	Comments
19:35	Brown Long-eared Bat	Central Block	2 BLE emerging from first floor window.
19:35-19:40	Common Pipistrelle	West Wing	2 not seen emerging but likely emerged from known emergence point in corner of west wing & central block roof.
20:19 – 20:51	Brown Long-eared Bat	Central Block	5 BLE emerging from second floor window. One re-entering.

Time	Species	Location	Comments
20:52	Common Pipistrelle	West Wing	Emerging from corner of west wing & central block roof.
20:59 – 21:02	Brown Long-eared Bat	Central Block	2 BLE emerging from second floor window. One re-entering.

4.6.5 Static Bat Detector Results

Two Chorus static bat detectors (Titley Scientific 2024) were deployed in the east and west wing attics between 13 March and 1 April 2025. Three species, Brown Long-eared Bat, Leisler's Bat and Common Pipistrelle were recorded in the west wing attic (Table 4-5) and the east wing attic (Table 4-6).

The static detectors record the number of calls, which does not correspond to the number of bats present. The calls represent an indication of relative activity levels. In the west wing a total of 98 calls were recorded, with 390 recorded in the east wing. Calls were not recorded every night.

Common pipistrelle and Leislars were recorded intermittently on the static detector.

Table 4-5: West wing attic static detector results

Date / Species	15/03	16/03	17/03	18/03	19/03	20/03	21/03	22/03	23/03	24/03	25/03	26/03	27/03	28/03	29/03	30/03	31/03	01/04r
BLE	6	0	0	0	2	2	0	0	0	9	1	5	13	0	0	6	9	19
Leisler's	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
Common Pipistrelle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0
Total	6	0	0	0	2	2	0	0	0	9	1	9	13	0	0	28	9	19

Table 4-6: East wing attic static detector results

Date / Species	15/03	16/03	17/03	18/03	19/03	20/03	21/03	22/03	23/03	24/03	25/03	26/03	27/03	28/03	29/03	30/03	31/03	01-Apr
BLE	0	0	0	0	2	15	1	0	0	9	12	27	9	4	31	120	89	47
Leisler's	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Common Pipistrelle	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Total	0	0	0	0	2	15	1	0	0	10	12	27	9	4	31	120	112	47

4.6.6 Site Use Survey

Three Chorus static bat detectors (Titley Scientific 2024) were deployed in the grounds to assess commuting routes from the building. These were placed to the west and east of the convent building, and along a hedgerow further east of the building by the social farm to determine activity across the site (Figure 4-6).

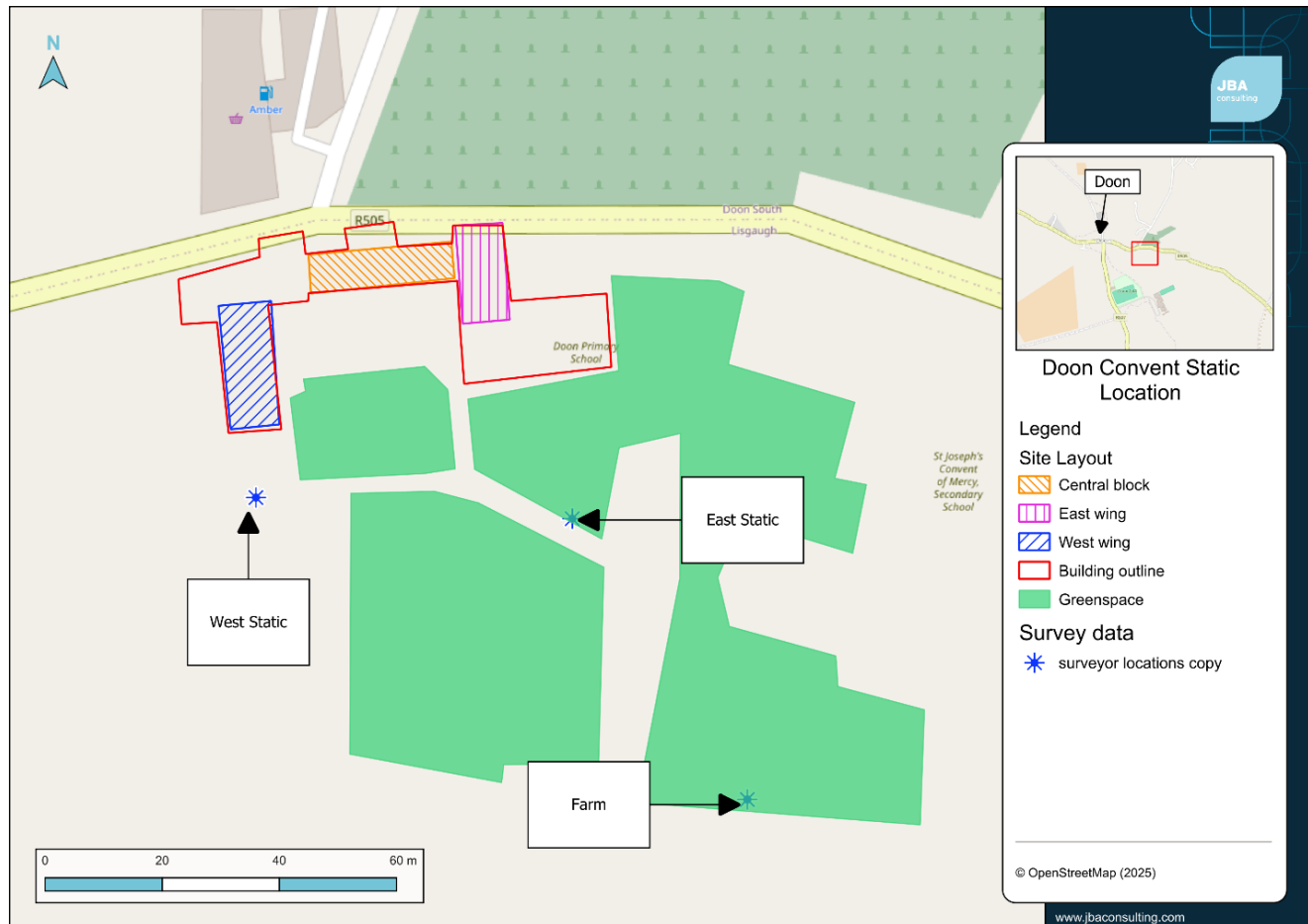


Figure 4-6: Location for static bat detectors

These were left to record between the nights 18 July and 28 July 2025. Five species, Brown Long-eared Bat, Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat and *Myotis* bat species were recorded on all three statics.

The static detectors record the number of calls, which does not correspond to the number of bats present. The calls represent an indication of relative activity levels. The west static had a total of 3,293 calls recorded (Table 4-7), with 9,896 recorded by the east static (Table 4-8); and 5,793 by the static on the farm hedgerow (Table 4-9).

Results of the passive surveys show that activity is highest near the eastern block of the convent building. The conifer treeline to the southeast of the building is likely an important commuting route from the building to surrounding areas. Bats also seem to be following the treeline along the Farm area.

However, the highest number of BLE calls were recorded on the west static, with almost no BLE calls recorded by the east static. This would indicate that BLE are not using this treeline, but instead emerging and flying westwards.

BLE calls are highest on the west static when bats are likely emerging from the convent building, with calls also recorded on the farm hedge static later in the night. BLE using the site may use other treelines south of the site connecting to the farm hedgerow.

Table 4-7: Relative bat activity by hour and by night recorded on the West static

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
21:00 – 22:00	<i>Myotis</i> species	0	0	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	0	0	2	0	0	10	0	0	0	0
	Soprano Pipistrelle	0	10	6	4	0	2	8	6	24	14
	Leisler's	0	0	2	0	2	2	6	4	2	2
22:00 – 23:00	<i>Myotis</i> species	2	12	0	0	6	0	0	0	0	0
	Brown Long-eared	2	38	2	0	2	2	0	2	2	2
	Common Pipistrelle	14	24	40	38	42	108	54	82	22	22
	Soprano Pipistrelle	8	4	4	4	24	12	28	6	8	16
	Leisler's	0	0	0	0	0	0	0	0	8	0
23:00 – 00:00	<i>Myotis</i> species	2	0	0	0	0	0	0	0	2	0
	Brown Long-eared	0	44	2	2	0	0	0	0	0	2
	Common Pipistrelle	30	16	14	20	18	16	20	12	20	28
	Soprano Pipistrelle	14	2	10	34	14	6	18	8	24	4
	Leisler's	4		2	3	14	56	4	10	12	10
00:00 – 01:00	<i>Myotis</i> species	0	0	0	0	2	0	2	0	0	0
	Brown Long-eared	6	24	0	0	0	0	6	2	0	0
	Common Pipistrelle	12	8	12	16	22	6	30	14	6	6
	Soprano Pipistrelle	6	0	4	8	18	6	22	10	10	18

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
	Leisler's	2	0	16	12	0	16	22	2	6	10
01:00 – 02:00	<i>Myotis</i> species	2	0	0	0	0	0	0	0	0	0
	Brown Long-eared	2	32	4	0	0	6	4	0	2	0
	Common Pipistrelle	8	2	12	10	30	22	18	14	14	4
	Soprano Pipistrelle	18	0	12	40	18	16	36	6	16	6
	Leisler's	14	0	0	0	2	4	2	30	4	4
02:00 – 03:00	<i>Myotis</i> species	2	2	0	0	0	10	2	0	0	0
	Brown Long-eared	12	16	16	2	14	0	16	0	2	2
	Common Pipistrelle	6	4	8	4	10	6	0	20	16	4
	Soprano Pipistrelle	2	0	22	2	4	0	60	0	24	28
	Leisler's	2	0	2	0	0	2	2	0	0	6
03:00 – 04:00	<i>Myotis</i> species	0	8	0	0	0	0	0	0	0	0
	Brown Long-eared	8	26	6	8	10	4	0	4	2	14
	Common Pipistrelle	2	14	88	2	34	24	14	6	20	12
	Soprano Pipistrelle	14	0	10	2	8	14	16	4	28	10
	Leisler's	0	0	0	0	0	0	0	0	2	0
04:00 – 05:00	<i>Myotis</i> species	2	0	0	0	0	0	0	0	0	0
	Brown Long-eared	10	4	16	30	18	12	18	8	20	12
	Common Pipistrelle	6	2	42	10	4	32	6	8	8	12
	Soprano Pipistrelle	6	0	4	2	2	10	10	8	14	26
	Leisler's	10	2	8	0	0	0	4	2	0	0
05:00 –	<i>Myotis</i> species	0	0	0	0	0		0	0	0	0

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
06:00	Brown Long-eared	0	0	0	0	0	0	0	0	4	0
	Common Pipistrelle	0	0	18	12	10	4	4	14	6	20
	Soprano Pipistrelle	2	2	4	4	8	14	0	2	4	0
	Leisler's	0	0	0	4	0	2	2	2	0	0

Table 4-8: Relative bat activity by hour and by night recorded on the East static

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
21:00 – 22:00	<i>Myotis</i> species	0	0	2	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	0	0	0	0	0	0	0	0	8	20
	Soprano Pipistrelle	0	0	0	2	2	4	2	2	0	0
	Leisler's	0	0	0	0	0	0	0	0	0	0
22:00 – 23:00	<i>Myotis</i> species	0	2	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	24	8	16	20	32	28	86	40	60	314
	Soprano Pipistrelle	14	8	12	6	14	10	24	4	46	44
	Leisler's	0	0	0	0	0	0	0	0	8	10
23:00 – 00:00	<i>Myotis</i> species	0	0	0	0	2	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	64	4	184	58	104	30	138	126	316	250
	Soprano Pipistrelle	24	0	70	6	10	42	38	24	72	74
	Leisler's	0	0	14	0	14	6	6	6	34	14
00:00 – 01:00	<i>Myotis</i> species	0	0	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	6
	Common Pipistrelle	44	2	108	22	78	94	64	296	316	114

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07	25/07	26/07	27/07
01:00 – 02:00	Soprano Pipistrelle	22	0	8	10	40	32	20	42	64	28
	Leisler's	0	0	20	2	6	10	20	4	40	42
	<i>Myotis species</i>	2	0	0	0	2	0	2	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	64	2	172	76	222	260	60	164	230	142
	Soprano Pipistrelle	20	6	40	14	28	40	80	36	46	26
02:00 – 03:00	Leisler's	6	0	44	14	16	4	0	6	38	6
	<i>Myotis species</i>	0	0	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	6	0
	Common Pipistrelle	76	2	90	66	122	138	132	278	186	18
	Soprano Pipistrelle	26	6	26	46	54	24	64	32	50	56
	Leisler's	22	0	6	52	4	30	12	10	96	34
03:00 – 04:00	<i>Myotis species</i>	0	0	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	40	2	168	44	4	38	148	162	20	166
	Soprano Pipistrelle	4	0	78	4	20	10	32	18	346	18
	Leisler's	6	0	0	0	6	18	0	14	40	22
	<i>Myotis species</i>	0	0	0	0	0	0	0	0	0	0
04:00 – 05:00	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	8	2	92	26	14	14	12	92	44	70
	Soprano Pipistrelle	20	4	16	8	4	14	12	10	44	10
	Leisler's	0	0	0	0	0	0	2	10	12	0
	<i>Myotis species</i>	0	0	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
05:00 – 06:00	Common Pipistrelle	2	2	0	2	2	6	2	20	18	32
	Soprano Pipistrelle	4	6	6	2	6	12	2	2	8	2
	Leisler's	0	0	0	0	0	0	4	0	0	0
	<i>Myotis species</i>	0	0	0	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0	0	0	0
	Common Pipistrelle	2	2	0	2	2	6	2	20	18	32

Table 4-9: Relative bat activity by hour and by night recorded on the Farm static

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07
21:00 – 22:00	<i>Myotis</i> species	0	0	0	0	0	0	0
	Brown Long-eared	0	0	0	0	0	0	0
	Common Pipistrelle	0	0	40	2	8	56	0
	Soprano Pipistrelle	42	0	90	224	204	206	94
	Leisler's	2	2	2	2	4	6	6
22:00 – 23:00	<i>Myotis</i> species	0	2	2	6	0	0	0
	Brown Long-eared	0	4	0	0	4	0	0
	Common Pipistrelle	84	10	52	168	188	78	110
	Soprano Pipistrelle	54	22	6	16	24	10	14
	Leisler's	0	0	0	0	0	0	0
23:00 – 00:00	<i>Myotis</i> species	4	16	0	4	22	40	2
	Brown Long-eared	0	4	2	2	0	2	0
	Common Pipistrelle	26	14	24	14	42	52	24
	Soprano Pipistrelle	28	4	6	12	28	44	14
	Leisler's	2	0	4	4	14	6	0
00:00 – 01:00	<i>Myotis</i> species	0	118	0	8	6	28	0
	Brown Long-eared	0	2	0	0	2	0	0
	Common Pipistrelle	6	28	34	16	16	132	14
	Soprano Pipistrelle	14	12	2	4	8	120	20
	Leisler's	0	0	2	8	2	26	8
01:00 – 02:00	<i>Myotis</i> species	2	8	4	6	4	4	0
	Brown Long-eared	4	0	2	0	2	4	0
	Common Pipistrelle	22	2	22	12	6	72	10
	Soprano Pipistrelle	20	0	2	4	2	54	10
	Leisler's	2	0	6	2	0	4	2
02:00 – 03:00	<i>Myotis</i> species	0	2	0	2	2	22	0
	Brown Long-eared	0	2	0	0	2	2	0
	Common Pipistrelle	10	8	12	6	8	34	6

Time	Species	18/07	19/07	20/07	21/07	22/07	23/07	24/07
	Soprano Pipistrelle	2	36	4	4	4	8	12
	Leisler's	10	0	2	2	0	0	2
03:00 – 04:00	<i>Myotis species</i>	0	18	0	0	0	4	0
	Brown Long-eared	4	2	12	4	0	0	2
	Common Pipistrelle	4	64	4	0	46	90	20
	Soprano Pipistrelle	6	26	20	4	32	32	8
	Leisler's	0	0	0	0	0	0	0
04:00 – 05:00	<i>Myotis species</i>	0	0	6	2	0	0	2
	Brown Long-eared	4	0	2	6	2	4	2
	Common Pipistrelle	12	6	8	2	78	50	4
	Soprano Pipistrelle	10	12	0	4	6	28	4
	Leisler's	8	0	0	0	0	4	4
05:00 – 06:00	<i>Myotis species</i>	0	0	0	2	0	0	2
	Brown Long-eared	0	0	0	0	0	0	0
	Common Pipistrelle	2	2	72	2	24	14	0
	Soprano Pipistrelle	118	6	422	314	426	158	12
	Leisler's	2	0	6	12	6	6	12

4.6.7 Summary of Survey Findings

This building accommodates a roost of at least 14 BLE bats. Presences of roosting in the central and east block attic spaces has been recorded. Internal inspections were undertaken prior to the commencement of the emergence surveys, which confirmed the presence of one BLE and 13 BLE bats in the east and central attics respectively. While the west attic has poor suitability for roosting bats, evidence of use was still recorded including droppings and calls during static detector surveys; it is likely used as a feeding roost at a minimum.

Endoscope searches for pipistrelles in cavities did not yield any confirmed locations, but use of the fascia or eaves is possible given the emergence point from the corner of the building. The presence of old laths in the central attic also provides ideal crevices and roosting space for both species.

Emergence was confirmed on 18 June 2025. This site is confirmed as a maternity roost for BLE bats with at least one pup recorded. The central attic is considered the most suitable due to the exposed stone walls and enclosed dark areas, and recorded presence of multiple bats in this location. This is likely the main roost for BLE at the site.

Emergence of Common and Soprano Pipistrelles from the west block attic was on 1 May, 18 June and 23 September 2025. The site is not considered to be a significant roost for these species.

Brown Long-eared Bat, Soprano Pipistrelle, Common Pipistrelle and Leisler's Bat were all recorded utilising the site for foraging and/or commuting during the emergence surveys, particularly the trees south and southeast of the convent building.

No bats were recorded using the building during follow up surveys for hibernation use in February 2026. Static detectors recorded no bat activity.

4.7 Population Size Class Assessment

Based on emergence counts and call data, the roost supports a population of Brown Long-eared Bats, estimated at a minimum of 14 individuals. This is consistent with maternity roosts used by this species. There are potentially higher numbers of BLE using the building, as not emergence surveys found low numbers emerging (maximum of 2 observed during surveys), and it is considered unlikely that all bats were found during internal inspections. Droppings were found in all three attic spaces. The bat droppings were sent to Swift Ecology/ Ecotype Genetics Limited (UK) for DNA analysis to determine which species were using the site. The samples were tested looking for matches to all bat species occurring in the UK and Ireland. Results revealed that samples from all three locations were from BLE bats only, indicating all three attics are used.

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Pipistrelle numbers of both species recorded were low, indicate minor roosts of this common species (non-maternity).

West Wing

The west wing attic (Figure 4-7) was fully accessible to surveyors. The roof was in good condition, with some gaps at the base noted as potential access points for bats. The space is open to the rest of the building, and bats may also enter through lower levels. Light infiltration was high, making this a less suitable space for roosting during the day, but some enclosed rooms were darker, with long term potential for roosting. Dried and faded droppings were recorded throughout the space and concentrated around the beams surrounding the covered water tank.

Central Block

The central block attic (Figure 4-8, Figure 4-9) was also fully accessible to surveyors. Gaps at the base of the roof were noted as potential access points for bats. Bats may access the space from lower levels. The lath roof in this location has high potential for crevices for roosting, as well as the crevices in the natural stonework to the east end of the central attic (where the 14+ bats were recorded). The secured ladder to the space was noted to have droppings and feeding signs on its steps. A large amount of dried and faded droppings were recorded throughout the space. 14+ BLE were recorded here,

East Wing

The east wing attic (Figure 4-11) only has limited access due to the lack of safe walking areas. Gaps at the base of the roof were noted as potential access points for bats. Dried and faded droppings were observed near the ladder access point.



Figure 4-7: West wing attic



Figure 4-8: Central attic space



Figure 4-9: Central attic space (main roost location in dark area visible in image background)



Figure 4-10: Fresh droppings under feeding perch on a light in the central block attic



Figure 4-11: East wing attic

5 Proposed Mitigation Measures

5.1 Ecological Clerks of Work

Due to the sensitive nature of the works, an ecological clerk of work (ECoW) with suitable experience working with bats and implementing mitigation measures shall be necessary.

The ECoW will have power to stop works in the interest of bat safety. The ECoW will carry out a toolbox talk at the start of the works to inform all staff about bats, and what measures need to be implemented. The ECoW will be contactable for the duration of the works in case they are needed.

During critical work phases i.e. re-roofing; roost installation; the ECoW shall be present on site to directly supervise the works. Once they are satisfied that the works are proceeding as planned, and that bats cannot be harmed and/or that the construction crew are knowledgeable of what steps to take should bats be encountered, then presence on site would not be mandatory. Periodic site visits, as well as regular calls/online meetings to ensure planning conditions are adhered to will be required.

It is proposed that the ECoW for the works will operate in conjunction with a licenced bat handler to ensure successful mitigation implementation.

5.2 Timing of Works

As bats have been recorded roosting in all three attic spaces, it will be necessary to remove and replace the roof in stages. As the primary BLE maternity roost has been identified within the central block attic, this space is the most sensitive and the roof should be removed outside of the breeding season and fully reinstated prior to the following bat breeding season to prevent disturbance to breeding BLE bats. Therefore, works started in 2025, should be completed by the spring of 2026. No construction works will take place after 30 April to avoid disturbance to breeding bats and maternity roosts. The optimum period for carrying out work on the sites with maternity roosts runs from 1 October to 1 May (Marnell, Kelleher, and Mullen 2022).

5.3 Pre-construction Surveys

Before works begin, a pre-construction bat survey will be undertaken to determine if bats are present in the building.

If works are being carried out in winter, bats may be hibernating in crevices and can be harder to spot. Therefore, it is advised that the initial minor refurbishment works be carried out when bats are active so that they can be removed and fly away to another location.

Prior to the commencement of the construction works the ECoW or a team of suitably qualified ecologists will carry out a roost survey using active/passive detectors and a visual

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check of the convent building and associated structures for roosting bats where safe to do so establish bat usage of the site and identify any new roosts within the buildings.

When construction works begin the presence of the ECoW will be required.

5.4 Bat Roost Options

5.4.1 Existing structures

Within the existing attic space, bat friendly features should be maintained as much as feasibly possible. Stone walls within the central attic space were in use by bats during the internal inspection in June 2025. These walls should be preserved as they provide roosting space. No repointing works will be completed to these walls without a crevice and gap inspection by the ECoW no more than 24 hours prior to repointing works, and repointing will be kept to a minimum.

5.4.2 Bat Loft

A bat loft is proposed to mitigate against the loss of other roost features within the convent building as a result of these works. The bat loft will be installed prior to the 2027 bat breeding season (in place by the end of February 2027) to allow works to carry on during the rest of the year. A proposed design is included in Figure 5-1.

Overall, the bat loft will be at least 2.5 to 2.8m tall and a minimum length or width of 5m (Razgour et al. 2013; Marnell, Kelleher, and Mullen 2022), or as tall as the attic to allow bats to fly within the space in order to warm up prior to exiting the loft.

Gaps of 1.6-2.0cm width are to be incorporated into the roof rafter of this bat loft using untreated timbers to create roosting opportunities for BLE bats. Untreated timber slats can be bolted to the rafters to create longitudinal crevices suitable for Pipistrelles as well. There is evidence of an increased chance of the mitigation success of bat roosts with an increased number of access points (Lintott and Mathews 2018).

Recent research suggests that bats are more likely to take up new roosts if there is evidence of bat usage, especially from conspecifics (Rizzi et al. 2025), although this is not recorded in all species (Brown and Carter 2022). In order to maximise chances of success, the ECoW shall collect bat droppings from the existing attics and use them to 'seed' the new bat loft. In order to monitor uptake of the bat loft, the seeded areas will be marked out and kept to discrete locations.

The ecologist will work with the contractor to ensure that the loft is suitable – it may be possible to adapt some of the enclosed rooms in the attics to minimise construction needs.

Roof access through dedicated bat access slates (e.g., Habibat bat Access Slate or equivalent) are to be installed into the loft roof. At minimum 2 access slates should be

NOTE TO FILE



installed, but more should be considered. Consultation with and advice from a bat specialist or a suitably qualified ecologist is required.

It is important that bats also have access through the bat-friendly roof felt beneath the bat access slates so that their access into the upstairs Loft is not hindered. That can be achieved by creating a hole of approximately 8cm x 3cm through the any felt present. To allow bats to land near the hole and climb back out of the upstairs loft through the access slate, the hole must be with or beside a rafter or a piece of timber (that is added beside the hole in the roof felt beneath the bat slate).

The slate roof will be underlaid with felt. Only traditional hessian-backed Bitumen Type 1F felt should be used on the underside of the new slated roof within the Bat loft. Other types of felt, such as modern Breathable Roof Membranes (BRMs) or 'Non-Woven Underlay' are known to abrade over time and form loose fibres in which bats become entangled and die (Waring et al. 2013).

If labelling on the felt says any of the following words – non-woven, polypropylene or spun-bond, then it is not suitable. The traditional felt type may also provide suitable roosting perches for BLE bats. The installation of Bitumen Type 1F felt will be verified by the ECoW.

Where it is proposed to use treated slating battens when re-roofing, along with other woodwork involved in roof repair, it is important to avoid the use of wood treatments that are highly toxic to roosting bats. Refer to "Bat Roosts and Timber Treatment Products. Natural England Technical Information Note TIN092 (2013)" for guidance on bat friendly timber treatment for the bat loft. The implementation of appropriate wood treatments will be verified with the architect/construction team by a suitably qualified bat ecologist. Any post installation treatment should be avoided. If treatment is required, it shall be done in accordance with guidance from the EcCOW in conjunction with a bat specialist.

Prior to any treatment in the attic spaces, a method statement and a product data safety sheet shall be transmitted to the ECoW to allow them to review the product and procedure.

Some bat safe timber treatments are provided for reference in the following section.

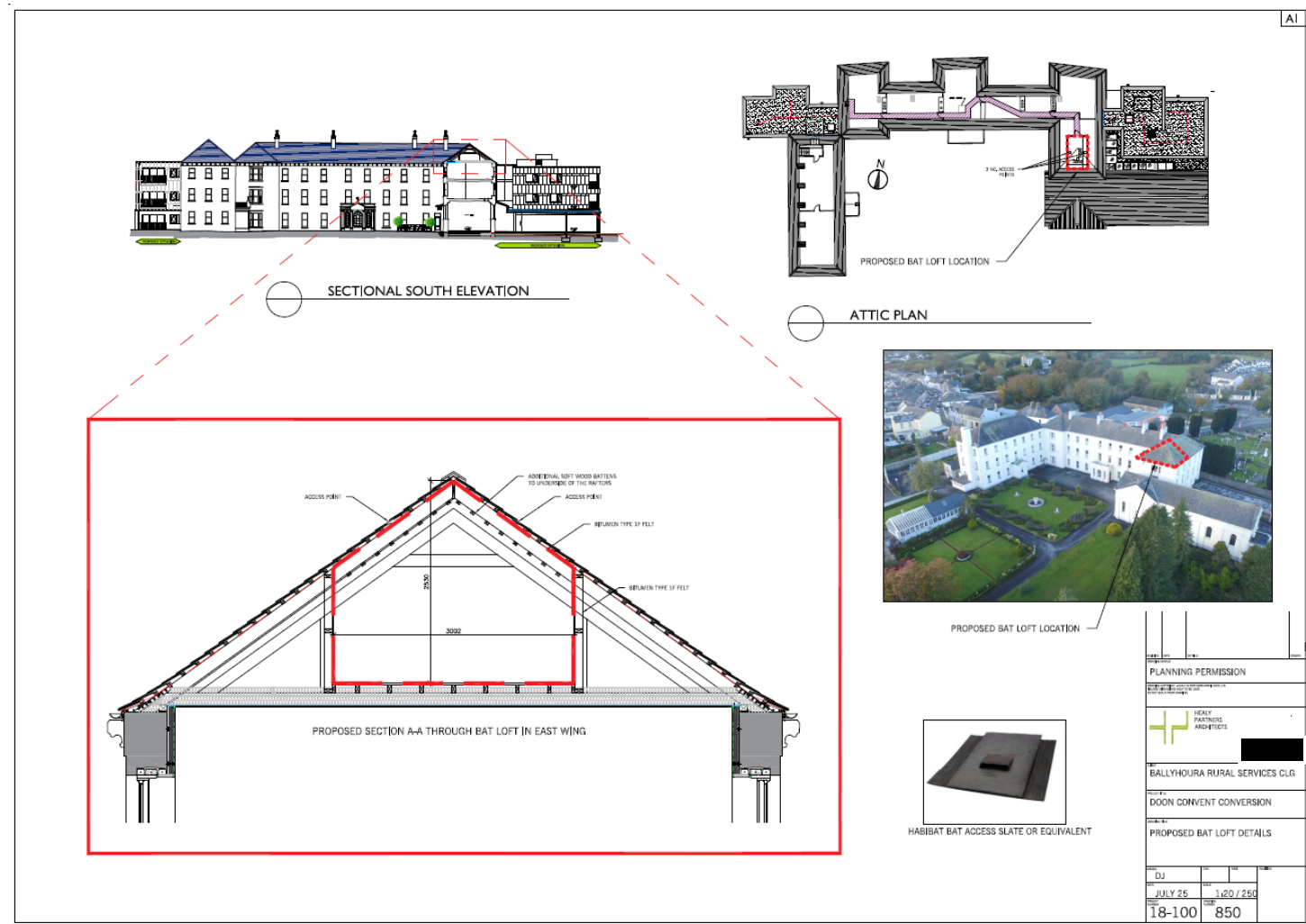


Figure 5-1: Proposed bat loft design

5.5 Bat Safe Timber Treatments

5.5.1 Woodwork

Repair and restoration of old or derelict buildings often requires remedial timber treatment against infestations of wood-boring insects. Although most treatment chemicals in general use now are safe once dry, the application of products must be avoided when bats are present; in most cases this is a matter of timing. *The Bat Worker's Manual* (Mitchell-Jones and McLeish 2004) gives further details of the remedial timber treatment process and the precautions to be taken. Where it is proposed to use treated timbers when re-roofing, along with other woodwork involved in roof repairs, it is very important to avoid the use of wood treatments that are highly toxic to roosting bats. Refer to '*Bats Roosts and Timber Treatment Products, Natural England Technical Information Note TIN092 (2011)*'. Treatments that are not toxic to bats should be used; details are given below.

Products suitable for use in a bat roost can be described in terms of the active ingredients (including their salts). Any products containing active ingredients listed in the following table are suitable for use in a bat roost.

Products standardised for remedial timber treatment may also carry a British HSE number indicating that they have received approval under the UK Control of Pesticides Regulations (COPR) 1986, but decorative finishes usually contain such low levels of biocide that they are exempt from this requirement (in the UK).

5.5.2 Insecticides and fungicides/decorative finishes which may be used where bats roost

This information is adapted from English Nature's Science Conservation Advice.

5.5.2.1 Insecticides:

- Permethrin
- Cypermethrin
- Bifenthrin
- Thiamethoxam
- Disodium octaborate
- Borax/Borate/Boric acid

5.5.2.2 Fungicides and decorative finishes:

- Borates
- Disodium octaborate tetrahydrate
- Borax/Borate/Boric acid
- Boron/boron 7

- Dodecylbenzyltrimethyl ammonium chloride
- Alkylbenzyltrimethylammonium chloride (= Benzalkonium Chloride)
- Copper naphthenate
- Zinc naphthenate
- Zinc octoate
- Aspergillus copper
- Aspergillus zinc
- Aspartic copper
- Aspartic zinc
- Sodium 2-phenylphenoxide

5.6 Providing Roosting Alternatives

To ensure the preservation and accommodation of other bats within the constraints of the new building usage, alternative mitigation measures are considered.

The installation of bat boxes is recommended for supporting the bat population at the site. It is expected this will be suitable and proportional mitigation for the changes to this non-breeding Pipistrelle roost. Bat boxes will be installed at site under the advice and supervision of the ECoW. This will provide an alternative roosting site for bats, including any bats possibly encountered during the works.

The bat box type and site locations will be chosen by the bat ecologist and will comprise of woodcrete or equivalent material (e.g. Schwegler 1WI, 2WI, 1WQ, 1FW). The implementation of same will be undertaken/supervised by a specialist bat ecologist appointed to supervise the works. These should be erected before the works begin.

Where feasible incorporation of bat boxes into the fabric of the building should be considered. This should only be carried out following guidance from a bat specialist, and only if suitable locations on the building are available.

5.7 Lighting Design

A sensitive lighting design will be employed across the site, and will be agreed upon between bat ecologist, site owner, lighting engineer and local authorities.

The site-wide lighting strategy will be developed to minimise light spill on to bat-sensitive areas such as trees, hedges and roost entrances. Illumination near roosts, commuting corridors, or foraging areas can deter bats from using otherwise suitable habitats, fragmenting their movement routes and reducing feeding efficiency. Lighting will be restricted to areas where it is essential for safety and security.

Lighting recommendations (Bat Conservation Trust and Institution of Lighting Professionals 2023):

- Warm white light (2700 Kelvin or lower) should be implemented to reduce blue light component.
- LED lighting should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- Waymarking inground markers (low output or similar to minimise upward light spill) to delineate paths across the site.
- Buildings, walls and hard landscaping may be designed as to block light spill from reaching habitats and features.
- Part-night lighting: Elements of on-site lighting can be controlled by dimming or switching either diurnally, seasonally, or according to human activity.

The lighting plan must accommodate both the health and safety aspect for human usage, but also the needs for bats that live in the building. Lighting shall be kept to a minimum and only used where and when necessary. No lighting shall be directed towards roost entrances or any other known bat access point, including the access points on the proposed bat loft.

Furthermore, lighting on the grounds should be done in a sensitive manner to minimise disruption to bats commuting and foraging on site.

The proposed lighting plan for the development is included in Figure 5-2. The lights specified in this drawing are the supplier's standard cool white 4000K LEDs, which the client has confirmed can be changed to warm white colour 2,700K at the detailed design stage, and scheduling of work tasks. The LED lanterns have less than 2% upward light and a well-defined light distribution so light spill is not anticipated to be an issue. Existing lights near roost access points are sensor activated and this area is largely dark during optimal bat activity hours.

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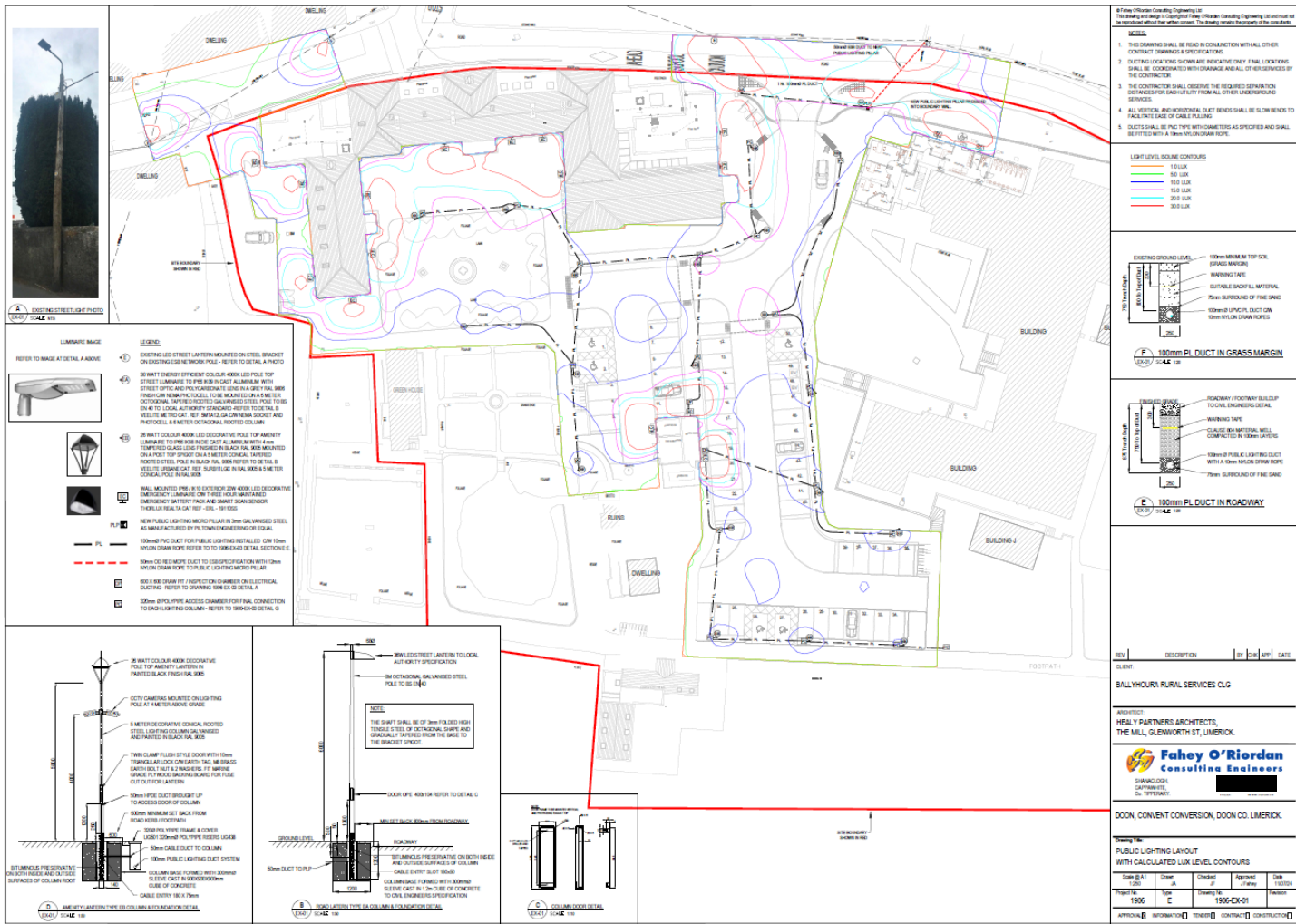


Figure 5-2: Proposed lighting plan

5.8 Avoidance During Construction

The construction team will be made aware of the use of the convent building by bats (maternity roosts and potential for winter roosts), and will be informed to cease works in the event that any bat is encountered during works in general. They will be made aware that they should immediately inform the ECoW for further instruction if bats are encountered.

All the relevant material for bat handling in an emergency situation, for instance disturbance of a bat in torpor or an active bat, will be placed on site.

In general, the protocol is to leave the bat in place and to allow it to fly away of its own accord, and to inform the ECoW. A small box will be present on site to transport any bats to safety until the ECoW can get to site.

NOTE TO FILE

If you encounter a bat on site **DO NOT** handle the bat.

Protocol is:

- Let the bat fly away.
- If the bat is not flying away, move the tile or brick to a quiet dark area and the bat will likely move on that night.
- If the bat is injured, we will attempt to get the bat to a wildlife rehabilitation unit.



Signs of bat presence include discarded **butterfly wings**, **staining around crevices** and **small mouse-like droppings which crumble easily**.

Bats are small (thumb sized), brown and furry. Bats will tuck themselves into cracks in between bricks and roof tiles.



Lift roof tiles directly up and check for presence.

Do not slide the tiles when checking. Pay attention to **ridge tiles, tops of walls and fascia**.

During works staff must **wear gloves** in case of accidental contact with bats.

If a bat is discovered/suspected, works must stop immediately and immediately contact **Anne Mullen**

Figure 5-3: Example of poster prepared for the construction team tearoom for a similar project

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During construction supervision will be conducted by an appropriately qualified and experienced bat ecologist to monitor any bat activity and to ensure works are implemented in accordance with the licence. A report detailing the results of the construction supervision shall be submitted to the NPWS detailing the results of the during construction surveys.

5.9 Post-development Monitoring

For the BLE maternity roost of this type, monitoring is recommended post-development in order to assess the success of the mitigation measures proposed. This will inform management of the development and any further mitigation/remedial measures necessary.

Monitoring of the roost should be carried for the duration of the works; timings of surveys should be determined by the ECoW in order to obtain the best scientific information possible, without causing unnecessary disturbance to the bats.

Annual monitoring of the roost should be carried out post works for two years.

Results of these surveys should be shared with the NPWS and the NBDC to keep accurate ecological records.

6 Evidence to Support the Derogation Tests

6.1 Test 1 – Reason for Derogation

The proposed conversion of the convent in Doon is justified on the grounds of overriding public interest, both in terms of public safety and broader social and environmental benefit. The structure is a historic building, and it is currently in a state of disrepair. It has recently been in use as a school (2016) and the ground floor is currently occupied and is partially in use as a medical centre. The wider site is used as a social farm by the surrounding community.

The converted convent building is intended for residential use, and its restoration supports national and local planning objectives related to rural housing, heritage conservation, and sustainable development. The project contributes to the rural regeneration, the reuse of vacant or derelict buildings and offers an alternative to dispersed one-off rural housing, which are recognised as priorities under the Limerick Development Plan.

Importantly, the proposed works are designed not only to avoid/minimise harm to the bat roost but to enhance their long-term conservation. The construction of a purpose-built alternative roost prior to any disturbance and the retention of the existing roost features in the central attic ensures that the species is protected and that the ecological function of the site is not only maintained but enhanced. This approach reflects a balanced and responsible strategy that integrates human needs with biodiversity conservation.

In this context, the public interest in preserving life, property, and cultural heritage – combined with the proactive conservation measures – clearly outweighs the temporary and mitigated impact on a species under strict protection.

6.2 Test 2 – Absence of Alternative Solutions

A thorough assessment of alternatives was undertaken as part of the planning and ecological review. The option of leaving the structure untouched was considered but is not viable. The convent building is not built to modern standards and is vulnerable to damage over time. Without intervention, the building is at risk of becoming unsuitable over time. If no action is taken, the roost may be lost, without any mitigation or monitoring. The outcome would be more detrimental to the species than a managed intervention.

A stand-alone bat house was considered, but the option of retaining the roost within the current building is considered the best outcome due to the faithfulness of Brown Long-eared Bats to roosting sites.

Avoiding works to the roost area was also explored. However, the roost is located within the central attic space of the convent, which is integral to the structure and cannot be isolated from the necessary works. Roosting areas in the attics will be avoided where possible, with some portions also to be retained (primarily the roost and walls identified in the central

attic). Works within the roosting areas will be avoided during the maternity season (April-August inclusive), so that the bat loft is in place prior to roosting bats returning to the site.

Relocation of the development is not feasible. The project involves the renovation of an existing building on a fixed site. The applicant is not proposing a new build but the restoration and extension of a long-standing structure for community use. The location is intrinsic to the project and cannot be altered.

Given these constraints, the only satisfactory solution is to proceed with the works under licence, with full mitigation in place. This approach ensures compliance with legal obligations and delivers a net benefit for both people and wildlife.

6.3 Test 3 – Impact of a Derogation on Conservation Status

The roost within the convent has been confirmed as a maternity roost used by at least 14 Brown Long Eared bats. In the absence of mitigation and/or compensation measures, the proposed works would result in the disturbance, and likely the loss, of this roost, which plays an integral role in the ecology and life cycle of the species.

Low numbers of both Pipstrelle species are also confirmed to be using the site, but the exact roost location has not been pin-pointed. These are considered to be roosts of lower significance, and minimal mitigation is required.

The proposed derogation includes a comprehensive mitigation strategy designed to ensure that the conservation of the BLE is not adversely affected. Mitigation measures include the construction of a purpose-built alternative roost prior to any disturbance. This structure will be designed to replicate the thermal and structural conditions of the existing roost, with input from experienced ecologists and in line with best practice guidance. This is in line with current guidance for mitigation (Marnell et al. 2022).

The alternative roost will be located in a quiet, undisturbed area of the site and will be monitored for 2 years after its installation to confirm uptake and use.

All works will be timed to avoid the maternity season (May-August) and will be carried out under the supervision of a licensed bat ecologist.

Additional measures include the implementation of bat-friendly lighting across the site to retain commuting routes and avoid disturbance to roost entrance/exit points.

Given the robust mitigation measures proposed, the derogation is not expected to result in a negative impact on the conservation status of the Brown Long-eared Bat at the local or regional level. On the contrary, the creation of a secure, purpose-built roost may enhance the local population and contribute positively to its long-term viability.

7 Monitoring Impacts

7.1 Post-Construction Monitoring

Monitoring will be carried out post-development in order to assess the success of the mitigation measures proposed. This will also inform management of the development and any further mitigation/remedial measures necessary. Annual monitoring of the roost will be carried out post-development for a minimum of two years to accurately monitor the uptake and use of the alternative roost by Brown Long-eared Bats. This monitoring will be carried out by the Ecological Clerk of Works (ECoW) for the proposed works. There is a hatch in the attic where the bat loft is proposed to be installed, providing access for direct counts and internal monitoring of the roost.

Monitoring of the roost will be carried for the duration of the works. Timings of surveys will be determined by the ECoW in order to obtain the best scientific information possible, without causing unnecessary disturbance to the bats.

Results of these surveys will be shared with the NPWS and the NBDC and BCI to keep accurate ecological records. Monitoring reports will be submitted each year post-development, for a minimum of two years.