

# Bat Survey Report

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The Stone Yard,  
Kilshane,  
Co. Tipperary

April 2026

Prepared for:  
Jane de Roquancourt



O'DONNELL   
ENVIRONMENTAL

## Summary

**Project:** The Stone Yard, Kilshane House, Co. Tipperary.

**Location:** R 93344 34706; 52.464058, -8.0986579

**Statement of Competence:** O'Donnell Environmental is an independent environmental consultancy established by Tom O'Donnell BSc (Hons) MSc CEnv MCIEEM in 2019. O'Donnell Environmental is a Chartered Institute of Ecology and Environmental Management (CIEEM) 'Registered Practice' which demonstrates our commitment to high professional standards, accountability and the delivery of the best outcomes for biodiversity and our Clients.

Tom O'Donnell is a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management. He was awarded a BSc in Environmental and Earth System Science [Applied Ecology] in 2007 and an MSc in Ecological Assessment in 2009, both from UCC. Tom has over 10 years professional experience in the environmental industry, including working on projects such as windfarms, overhead power lines, roads, cycleways and residential developments. Tom is licenced by NPWS for roost disturbance, to capture bats, and to photograph bats.

Colm Breslin BSc (Hons) is a Qualifying member of the Chartered Institute of Ecology and Environmental Management. He was awarded a BSc in Biological, Earth and Environmental Sciences [Ecology and Environmental Biology] in 2023 from UCC. Colm has experience in habitat mapping, bat activity surveys and preliminary roost assessments for a variety of windfarm and residential developments. Colm is licenced by NPWS for roost disturbance, to capture bats, and to photograph bats.

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# 1 Introduction

O'Donnell Environmental Ltd. were commissioned by Jane de Roquancourt to undertake a preliminary bat roost assessment in support of the current planning application following a request for further information on 16<sup>th</sup> October 2025 (Tipperary Co. Co. Ref: 25/173).

The proposed development involves the conversion of disused farm structures which form part of 'The Stone Yard' associated with Kilshane House to residential. The subject of this report pertains to proposed Apartments 7-11, Apartments 12+13 and the Outhouse which comprise three separate structures of The Stone Yard (see **Figure 1; Appendix B**). The Stone Yard is classed as a protected structure (NBHS Ref: 22206709). Please refer to **Appendix B** for design information.

## 1.1 LEGAL STATUS OF BATS

All bat species and their roosting sites are strictly protected under both national and international law. The purpose of this legislation is to maintain and restore bat populations within their natural range. Where human activities have the potential to compromise bat populations, measures are required to be put in place to avoid impacts or compensate and mitigate for those impacts. A grant of planning permission does not constitute a licence or permit to disturb bats or interfere with their breeding or resting places.

The key legislation which provides protection to bats is as follows:

- Wildlife Act (1976) and subsequent amendments which makes it unlawful to intentionally disturb, injure or kill a bat or disturb its resting place without a licence to derogate from Regulation 23 of the Habitats Regulations 1997, issued by NPWS.
- The EU Habitats Directive (which has been transposed into Irish law with the European Communities (Birds and Natural Habitats) Regulations 2011) which seeks to protect rare species, including bats, and their habitats and requires that appropriate monitoring of populations be undertaken. All Irish bat species are listed in Annex IV, while Annex II provides additional protection for the Lesser Horseshoe Bat.

## 2 Methodology

The bat survey was carried out through desk study, visual assessment of the exterior and interior building structures, DNA analysis of droppings, and passive bat monitoring. Each of these are described below.

All surveys were carried out with cognisance of industry standard best practices, including the following:

- Bat Conservation Trust guidelines Bat Surveys for Professional Ecologists: Good Practice Guidelines 4<sup>th</sup> edition (note that the guidelines were recently updated to 4<sup>th</sup> edition) (Collins, 2023).
- Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes (NRA (now TII), 2005b).
- Guidelines for the Treatment of Bats during the Construction of National Road Schemes (NRA (now TII), 2006b).
- Bat Mitigation Guidelines for Ireland (Marnell et al., 2022).

Limitations are outlined in **Section 2.4**.

### 2.1 DESK STUDY

A desktop review of publicly available relevant data was undertaken on the National Biodiversity Data Centre (NBDC) and National Parks & Wildlife Service (NPWS) websites to identify any rare or protected species records located within the relevant national grid squares encompassing the site.

The NBDC was reviewed for relevant bat data, specifically i) existing species records for the 10km square in which the study site is located (R93) and ii) an indication of the relative importance of the wider landscape in which the study site is located, based on Model of Bat Landscapes for Ireland (Lundy et al., 2011). In the latter, the index ranges from 0 to 100, with 0 being least favourable and 100 most favourable for bats.

Designated international and national nature conservation sites within the wider hinterland of the proposed redevelopment were identified through a desktop review. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) form part of a European Conservation network known as Natura 2000 sites. SACs are designated under the EU Habitats Directive<sup>1</sup> while SPAs designated under the EU Birds Directive<sup>2</sup>. Nationally designated conservation sites include Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs). While NHAs are legally protected by the Irish Wildlife Acts (1976 as amended), pNHAs are not.

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<sup>1</sup> Council Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna, as amended by Council Directive 97/62/EC.

<sup>2</sup> Directive 2009/147/EC (Birds Directive) on the conservation of wild birds (the codified version of Council Directive 79/409/EEC as amended).

## 2.2 DAYTIME ASSESSMENT

A detailed preliminary roost assessment (PRA) of all interior and exterior spaces of all structures was carried out following guidance set out in Collins (2023) and classified according to the scheme outlined in **Table 2.1**. Daytime assessments were carried out by Tom O'Donnell, Colm Breslin and Oisín O Sullivan BSc (Hons) on 13<sup>th</sup> January and 18<sup>th</sup> February 2026. The surveys aimed to identify any evidence of the presence of roosting bats, and to assess the suitability of the structures for roosting bats. Surveys were conducted using high-powered torches, endoscope and binoculars. A ladder was utilised to access roosting features at height. Signs of bat use include bat droppings, feeding remains, potential bat access points identified by characteristic staining and scratches, noise made by bats etc. Samples of droppings identified within both structures were sent to SureScreen Scientifics for DNA analysis to confirm species identification.

There was no evidence of any recent disturbance (e.g. cleaning) within the buildings which might have removed evidence of bat roosting (e.g. droppings) and therefore confidence in the results of this visual inspection is high.

**Table 2.1. Scheme for describing the potential suitability of structures for bats.**

Suitability	Description
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
Negligible	No obvious habitat features likely to be used by roosting bats, but a degree of uncertainty remains as seemingly unsuitable features may be used on occasion.
Low	A feature with one or more potential roost sites that could be used by individual bats opportunistically. Potential roost sites which do not provide appropriate conditions and / or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost sites that could be used by bats due to characteristics and surrounding habitat but unlikely to support a roost of high conservation status.
High	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.

*After 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> Edition)', Collins (2023).*

## 2.3 PASSIVE BAT MONITORING

Passive bat monitoring was carried out within Apartments 7-11 and Apartments 12+13 using WA Song Meter Mini 2 full-spectrum detectors between the 18<sup>th</sup> January and 12<sup>th</sup> March 2026 for a total of 22 survey nights each (see **Figure 1**). Detectors were placed within interior spaces where evidence of bat roosting was identified, in the form of droppings and feeding remains. Detectors were set to record for 24 hours in order to record possible day roosting. Bioacoustics analysis of bat sonograms was carried out according to the parameters set out in Russ (2012; 2021) and Middleton et al. (2022). Kaleidoscope Pro software was used to aid analysis and all calls were manually verified.

While bat activity is reduced in winter and periods of torpor occur, bats will emerge periodically to drink, feed, relocate etc. during warmer weather. The aim of the passive monitoring was to 1) identify the presence of bats, 2) identify those species using the structures, and 3) to identify if roosting likely occurred within the structures by looking at the temporal distribution of bat activity (e.g., evidence of day-roosting where activity is before sunset). Collins (2023) outlines how useful data may be collected through passive monitoring outside of the active bat season,

particularly in relation to hibernation or the 'shoulder months' (transitional periods), but that winter passive monitoring should be supported by manual surveys as appropriate. Passive monitoring results in this instance are supported by robust daytime assessments and DNA analysis.

## 2.4 SURVEY LIMITATIONS

Full site and building access were supplied by the Client. All relevant structures were subject to a detailed daytime visual inspection according to industry best-practice and standards (Marnell et al. (2022), Collins (2023) and NRA, (2005;2006)). There was no evidence of any recent disturbance (e.g. cleaning) within the buildings which might have removed evidence of bat roosting (e.g. droppings) and therefore confidence in the results of this visual inspection are high.

The passive detector survey period spanned the hibernation season and early portion of the active bat season and passive bat detection was undertaken outside of the core maternity season (July-August inclusive). The study took place outside of the recommended survey period for emergence surveys following Collins (2023) and therefore bat emergence (or re-entry) surveys were not carried out. This limits the opportunity to accurately characterise bat roosting within the buildings or to record additional bat roosting which was not otherwise detectable in the current study. DNA analysis and passive bat monitoring during winter and early spring helped to increase understanding of the use of the building by bats.

Based on evidence gathered, there is no evidence of roosting of above 'low' conservation status following Marnell et al. (2022). There is good alignment in terms of the available evidence, and roosting appears to be confined to individual/small numbers of bats, and the structures are not considered likely to provide suitable conditions for "significant" (e.g. maternity) roosting. Situations where survey effort is sub-optimal are discussed in Section 6.4 of Marnell et al. (2022). Given the potential data gap, a conservative approach has been taken, and robust mitigation has been applied as recommended by Marnell et al. (2022), such that the lack of surveys within the maternity season and definitive numbers are not considered a significant limitation in this instance.



**Figure 1**  
**Study Site**

**Project:**  
Kilshane House

**Prepared for:**  
Jane de Roquancourt

Colm Breslin BSc (Hons)  
D: 23/03/2026

*Microsoft product screen shot(s)  
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**Legend**

- Planning Boundary (25/173)
- Apartments 7-11
- Apartments 12+13
- Outhouse
- ▲ Passive Bat Monitor



## 3 Results

The proposed development encompasses three historic structures located within the curtilage of Kilshane House (see **Figure 1**), approximately 3.4km west of Tipperary Town. The structures are bounded by mature trees, with the surrounding landscape characterised by extensive pasture, rivers and mixed woodland (including Bansha Forest). The courtyard is subject to low levels of lighting disturbance from external light fixtures on apartments when occupied by guests.

### 3.1 DESK STUDY

No internationally or nationally designated sites with bats listed as a qualifying interest are located within 10km of the proposed development. National Biodiversity Data Centre holds previous records of bat presence from within the 10km square (R93) in which the proposed site is located. These records are for six species (see below).

- Common Pipistrelle (*Pipistrellus pipistrellus*).
- Soprano Pipistrelle (*Pipistrellus pygmaeus*).
- Leisler's Bat (*Nyctalus leisleri*).
- Daubenton's Bat (*Myotis daubentonii*).
- Natterer's Bat (*Myotis nattereri*).
- Brown Long-eared Bat (*Plecotus auritus*).

There is a known bat roost within Kilshane House as informed by the Client, located approximately 90m southwest of the development boundary. As Kilshane House is located outside of the development boundary, no definitive information exists on the species composition and numbers within Kilshane House. Although, the National Bat Database of Ireland holds an historic 1km roost record for Brown long-eared bat from 1997 that overlaps with Kilshane House, indicating roosting by this species at a minimum.

All bat species in an Irish context are of 'Least Concern' within Marnell et al. (2019). The most recent Article 17 report (NPWS, 2025) states the conservation status of all bat species are 'favourable', except for Lesser Horseshoe Bat which is 'inadequate and declining' due to declines in Limerick and North Kerry populations specifically. The proposed development is located outside of the known range of the Annex II species Lesser horseshoe bat, despite receiving a landscape suitability index of '8'.

The overall bat suitability index value (31) according to 'Model of Bat Landscapes for Ireland' (Lundy et al., 2011) suggests the landscape in which the proposed site is located is of moderate-high suitability for bats in general. Species specific scores are provided in **Table 3.1**.

**Table 3.1 - Suitability of the study area for the bat species according to 'Model of Bat Landscapes for Ireland' (Lundy et al., 2011).**

Common name	Scientific name	Suitability index
<i>All bats</i>		31
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	47
Brown long-eared bat	<i>Plecotus auritus</i>	43
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	50
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	8
Leisler's bat	<i>Nyctalus leisleri</i>	47
Whiskered bat	<i>Myotis mystacinus</i>	18
Daubenton's bat	<i>Myotis daubentonii</i>	33
Nathusius pipistrelle	<i>Pipistrellus nathusii</i>	1
Natterer's bat	<i>Myotis nattererii</i>	32

Source: <https://maps.biodiversityireland.ie/Map>. Accessed 30/03/2026.

## 3.2 DAYTIME ASSESSMENT

Results of daytime assessments are discussed for each structure separately below.

### 3.2.1 Apartments 7-11

The structure proposed to accommodate Apartments 7-11 (see **Figure 1**) comprises a single contiguous L-shaped stonework structure. The roof is comprised of natural slate with no underlay, sitting directly atop the timber roof frame and held with lime mortar. There is no attic space. While generally intact, the roof structure is degraded in multiple places through missing slates and open windows which results in the interior being somewhat exposed to light as well as wind and water ingress occasionally. Corvid nests are in multiple points within the rafters. The structure generally lacks interior floors, except for Apartment 7 and 8. Interior walls were inspected at height using a ladder and endoscope (see **Plate 3.5**). Loose slates and open windows ensure the entire structure is accessible to bats. There are interior lights which are likely used occasionally and result in temporary disturbance to bats roosting within.

Numerous 'low' or 'moderate' suitability crevices were identified within the structure complex, primarily in the form of loose mortar between stonework, wooden joinery at the hip roof and rafter sections (see **Plate 3.7; 3.11**), where the roof sits on the wallplate, and small sections of wooden sarking above the wallplate and below the slates (see **Plate 3.6**). There were clear gaps between the ridge beam and battens that provides access to cavities underneath the ridge tiles. There are two interior walls, with crevices associated at ridge level where the roof structure adjoins. Gaps were present within the wooden lintels of the upper floor windows, and within the underside of the interior floors also.

Small numbers of droppings and feeding remains were at either end of this structure. DNA analysis was undertaken on droppings by SureScreen Scientific on behalf of O'Donnell Environmental and were identified as Common pipistrelle (see **Appendix A**).

Overall, Apartments 7-11 are considered to be of 'moderate' suitability for roosting bats following Collins (2023).



**Plate 3.1** Overview of Apartments 7-11.



**Plate 3.2** Alternate view of Apartments 7-11.



**Plate 3.3** View of Apartment 11.



**Plate 3.4** Interior view of Apartment 11.



**Plate 3.5** Surveyor at height inspecting stonework crevices and roof structure.



**Plate 3.6** View of example crevice between roof structure sarking and wall plate.



**Plate 3.7** Example of complex joinery at hip-roof sections of Apartment 11.



**Plate 3.8** View of Apartment 10 attic.



**Plate 3.9** View of Apartment 10 ground floor.



**Plate 3.10** View of Apartment 8-9.



**Plate 3.11** View of Apartment 7.

### 3.2.2 Apartments 12+13

Apartments 12+13 is a standalone structure at the northeast of the site of the same construction as Apartments 7-11: stonework walls with natural slate atop timber roof. This structure was significantly degraded with a large section of the ground floor exterior wall missing and roof structure open to the elements, allowing light, wind and rain throughout (see **Plate 3.14**). The ground floor was fully accessible, with access to the upper floor not possible due to safety concerns. However, clear views were possible of the upper floor and roof (see **Plate 3.15**). Most interior floors and ceilings have been removed, and no attic void is present. A small accumulation of droppings and feeding remains were identified within the central room of the

ground floor. Above this accumulation a portion of the ceiling remained, composed of lath and plaster (see **Plate 3.15**) which may contain the roosting location/feeding perch. DNA analysis was undertaken on these droppings by SureScreen Scientific on behalf of O'Donnell Environmental and were identified as Brown long-eared bat and Natterer's bat (see **Appendix A**).

Overall, Apartments 12+13 are considered to be of 'moderate' suitability for roosting bats following Collins (2023).



**Plate 3.12** View of Apartment 12+13.



**Plate 3.13** Upper floor of Apartment 12+13.



**Plate 3.14** Interior view of Apartment 12+13.



**Plate 3.15** Surveyor inspecting void above small accumulation of droppings.

### 3.2.3 Outhouse

The outhouse is located at the east of the proposed development and is composed of stonework with no roof (see **Plate 3.16**). There are no interior spaces, and the structure is exposed to wind and rain. The western portion of the outhouse comprises a dovecote (see **Plate 3.17**), with some minor crevices which were inspected with endoscope at height. No evidence of bat roosting was identified within the outhouse. Overall, the outhouse is considered to be of 'low' suitability for roosting bats following Collins (2023).

### 3.2.4 Other structures

A portion of structures within The Stone Yard were previously renovated and are the subject of the retention element of the planning application. Of these, access was possible to one immediately south of Apartments 12+13 which was inspected internally including the attic. No evidence of roosting bats was found. DNA analysis undertaken on droppings within, which were found to be White-toothed shrew (see **Appendix A**).



**Plate 3.16** View of outhouse with dovecote.



**Plate 3.17** Surveyor inspecting crevices of dovecote.

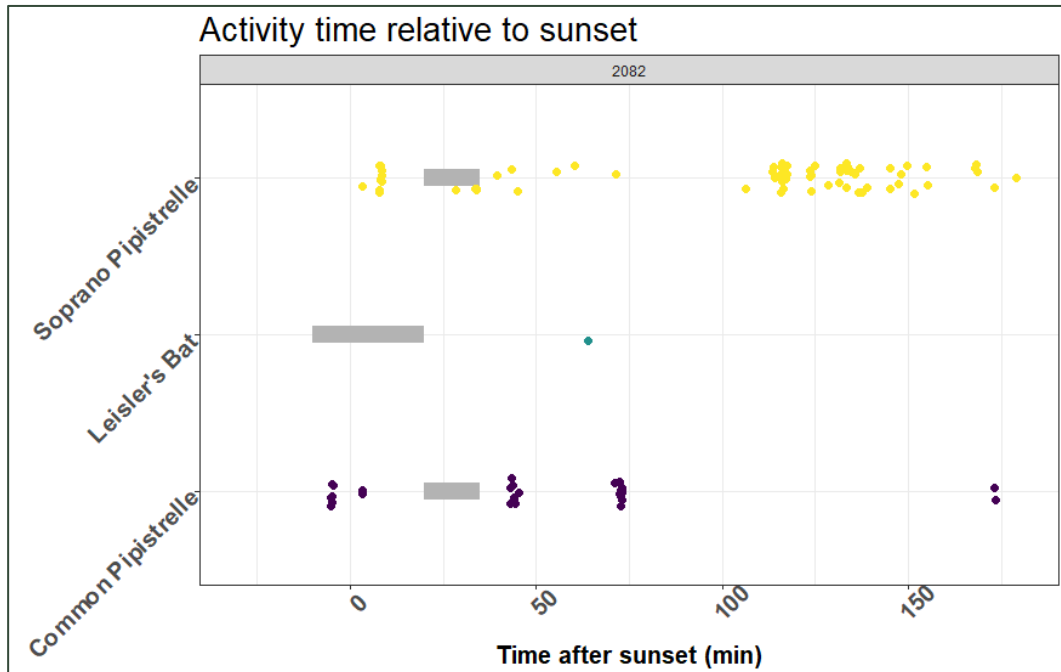
### 3.3 PASSIVE BAT MONITORING

Continual (24-hour) passive bat monitoring was conducted within Apartments 7-11 and Apartments 12+13 in order to gather further evidence of roosting bats. Detectors were sited where evidence of roosting was identified during daytime assessments. A total of 558 registrations were recorded across both detectors. Results for each detector are discussed separately below. See **Table 3.2** for full results.

#### 3.3.1 Apartments 7-11

A total of 171 registrations were recorded within Apartments 7-11, with an average of 8 registrations per survey date. A number of survey dates recorded no registrations, likely due to fluctuations in temperature within the early bat active season. Three species were recorded within Apartments 7-11: Common pipistrelle, Soprano pipistrelle and Leisler's bat. The majority of activity comprised Soprano pipistrelle (60%) and Common pipistrelle (40%), with Leisler's bat comprising a single registration. Considering the low intensity of the recorded Leisler's bat, and open windows within the structure, this species is not considered to have been recorded within the structure.

A detailed comparison between timing of registrations and relative sunset was conducted on all recordings from Apartment 7-11 (see **Figure 3.1**). Mean emergence times of species were taken from Andrews and Pearson (2022). The earliest registration of Common pipistrelle was recorded 5 minutes before sunset. The earliest registration of Soprano pipistrelle was recorded 3 minutes after sunset. The mean emergence time of both species are approximately 25 minutes and 34 minutes after sunset respectively. The timing of registrations prior to sunset relative to mean emergence times indicates that both Common pipistrelle and Soprano pipistrelle were day-roosting within Apartments 7-11.



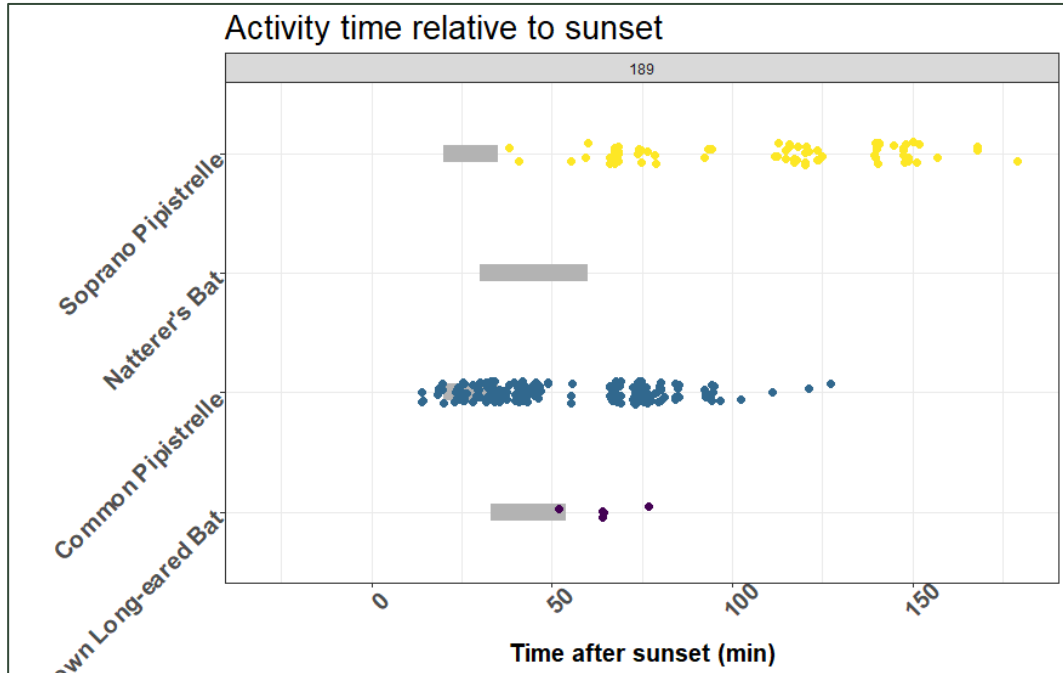
**Figure 3.1** Graph showing registrations of each bat species recorded within Apartments 7-11 relative to sunset. Grey box indicates the average emergence window for each species, with registrations within and before this time indicative of roosting within the structure.

### 3.3.2 Apartments 12+13

A total of 387 registrations were recorded within Apartments 12+13, with an average of 18 registrations per survey date. A number of survey dates recorded no registrations, likely due to fluctuations in temperature within the early bat active season. Four species were recorded within Apartments 12+13: Common pipistrelle, Soprano pipistrelle, Brown long-eared bat and Natterer's bat. The majority of activity comprised Common pipistrelle (67%) and Soprano pipistrelle (27%). Brown long-eared bat and Natterer's bat comprised the remaining 4% and 2% respectively.

A detailed comparison between timing of registrations and relative sunset was conducted on all recordings from Apartments 12+13 (see **Figure 3.2**). Mean emergence times of species were taken from Andrews and Pearson (2022). The earliest registration of Common pipistrelle was recorded 12 minutes after sunset, prior to their mean emergence time of 25 minutes. The earliest registrations of Brown long-eared bat was 40 minutes after sunset, prior to the mean emergence time of 61 minutes after sunset. Soprano pipistrelle was first recorded 40 minutes after sunset, after their mean emergence time of 34 minutes. Natterer's bat were not recorded until 4 hours after sunset, well beyond their mean emergence time of 31 minutes. The timing of registrations relative to mean emergence times, in addition to DNA analysis of droppings (see **Section 3.2.2**) indicates that both Common pipistrelle and Brown long-eared bat were day-roosting, and Natterer's bat were night-roosting or foraging within Apartments 12+13. There is potential for Common pipistrelle and Soprano Pipistrelle emerging from Apartments 7-11 at earlier times (see **Section 3.3.1** above) utilising Apartments 12+13 immediately afterwards. Following a precautionary approach, it is considered that Soprano pipistrelle were also day roosting within Apartments 12+13.

As passive monitoring took place in the early active bat season, it is considered that 'non-classic' hibernation likely occurs within both structures (Reason and Wray, 2025).



**Figure 3.2** Graph showing registrations of each bat species recorded within Apartments 12+13 relative to sunset. Grey box indicates the average emergence window for each species, with registrations within and before this time indicative of roosting within the structure.

**Table 3.2 – Passive monitoring results.**

Survey Date	Common pipistrelle	Soprano pipistrelle	Brown long-eared bat	Natterer's bat	Leisler's bat	Grand Total
<b>Apartments 7-11</b>						
18/02/2026	0	0	0	0	0	0
19/02/2026	0	0	0	0	0	0
20/02/2026	6	0	0	0	0	6
21/02/2026	16	12	0	0	0	28
22/02/2026	1	2	0	0	0	3
23/02/2026	11	30	0	0	0	41
24/02/2026	0	6	0	0	0	6
25/02/2026	1	14	0	0	1	16
26/02/2026	27	30	0	0	0	57
27/02/2026	2	2	0	0	0	4
28/02/2026	0	0	0	0	0	0
01/03/2026	0	0	0	0	0	0
02/03/2026	0	1	0	0	0	1
03/03/2026	0	0	0	0	0	0
04/03/2026	0	4	0	0	0	4
05/03/2026	0	0	0	0	0	0
06/03/2026	0	0	0	0	0	0
07/03/2026	0	0	0	0	0	0
08/03/2026	0	0	0	0	0	0
09/03/2026	0	1	0	0	0	1
10/03/2026	0	0	0	0	0	0
11/03/2026	4	0	0	0	0	4
<b>Apartments 12+13</b>						
18/02/2026	0	0	0	0	0	0
19/02/2026	8	1	0	0	0	9
20/02/2026	10	0	0	0	0	10

21/02/2026	19	1	0	0	0	20
22/02/2026	0	1	0	0	0	1
23/02/2026	70	39	1	0	0	110
24/02/2026	0	4	0	1	0	5
25/02/2026	36	15	4	0	0	55
26/02/2026	1	37	0	0	0	38
27/02/2026	0	0	0	0	0	0
28/02/2026	0	0	0	0	0	0
01/03/2026	1	0	0	0	0	1
02/03/2026	2	1	0	0	0	3
03/03/2026	2	0	6	0	0	8
04/03/2026	4	5	6	6	0	21
05/03/2026	0	0	0	0	0	0
06/03/2026	24	0	0	1	0	25
07/03/2026	0	0	0	0	0	0
08/03/2026	3	0	0	1	0	4
09/03/2026	0	1	0	0	0	1
10/03/2026	4	0	0	0	0	4
11/03/2026	72	0	0	0	0	72
<b>Total</b>	<b>324</b>	<b>207</b>	<b>17</b>	<b>9</b>	<b>1</b>	<b>558</b>

### 3.4 SUMMARY OF RESULTS

The proposed development comprises three disused structures. Non-significant day roosting by Common pipistrelle, Soprano pipistrelle and Brown long-eared bat, in addition to night roosting by Natterer's bat have been identified within Apartments 7-11 and Apartments 12+13. Based on current information both structures are likely used by individual/small numbers of bats. No evidence of roosting bats was identified within the third structure (outhouse), presenting in an advanced state of dereliction and exposed to the elements. No structures are considered to possess suitability for significant roosting, with identified roosts of 'low' conservation status following Marnell et al. (2022).

Overall, the **proposed** development is considered of Local Value (Higher Importance) following NRA (2009).

## 4 Potential Impacts

This section discusses the potential effects of the proposed development on bats in both the construction and operational phases in the absence of mitigation.

Bats and their roosts are protected by legislation, and the proposed works may only proceed following the grant of a derogation issued under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations (2011).

### 4.1 DO-NOTHING SCENARIO

If the proposed development does not proceed, the 'do nothing' scenario is that the existing environment within the site boundary is likely to remain as described herein in the short term at least. Roosting will continue to occur by individual/small numbers of bats. The interior will likely continue to be subject to light disturbance through occasional use. It is noted that the current degradation to the roof structure has likely already reduced the roosting suitability for bats to some extent. Under a do-nothing scenario it was considered that Apartments 7-11 and 12+13 of The Stone Yard would be become further unsuitable for roosting bats in the medium (7-15 years following EPA, 2022) and eventually lost as a roosting space in the long term (>15 years following EPA, 2022).

### 4.2 CONSTRUCTION PHASE

The potential for direct and indirect effects on bats during the construction phase are described below.

#### 4.2.1 Loss/Disturbance of Roosting Site

Considering the extent of structures, construction activity will likely require a phased approach. The construction phase of the proposed renovation will see the temporary displacement of non-significant roosting within the blocks containing proposed Apartments 7-11 and Apartments 12+13.

Localised increases in noise and dust levels are likely to occur during the construction phase. Noise will occur through the operation of machinery (excavation, pile driving, etc.). Dust may arise during construction works if dry soil or other material is allowed to become windborne. In the absence of mitigation, these impacts could give rise to indirect negative effects on bat species roosting near works.

There is no proposed removal of vegetation associated with the proposed development, and therefore no loss in foraging and commuting habitat suitability will occur.

#### 4.2.2 Lighting

The interior courtyard of The Stone Yard is currently illuminated at night predominantly by large flood lights installed on the existing disused buildings. Working at night is not predicted during the construction phase, and no additional external lighting is proposed during the construction phase.

Inappropriate illumination surrounding a bat roost during the construction phase can cause disturbance (Downs et al., 2003). Light falling on a roost access point will at least delay bats from emerging and this shortens the amount of time available to them for foraging (Boldogh et

al., 2007). As the main peak of nocturnal insect abundance often occurs around dusk, a delay in emergence can mean this vital time for feeding is missed. Additionally, there is evidence that Brown Long-eared Bat roosts can be abandoned completely when entrances are illuminated (Roche et al., 2014).

Inappropriate or excessive illumination of treelines or woodland areas at night can cause disturbance commuting and foraging bats. Artificial lighting is thought to increase the chances of bats being predated upon by avian predators (e.g. owls), and therefore bats may modify their behaviour to avoid illuminated areas.

The overall effect on bats at the proposed development during the construction, prior to consideration of mitigation measures, is considered to be **short-term, slight negative at the local scale** (following EPA, 2022).

### 4.3 OPERATIONAL PHASE

The proposed development will result in significant changes to the internal layout of proposed apartments, such that the building interiors will no longer be accessible to bats due to occupation. As discussed in **Section 5.3** below, bespoke bat roosting sites will be created within the attics of the two largest buildings as part of the proposed renovation works. Overall, there is no predicted loss of bat roosting resource as a result of the development upon completion of works.

Inappropriate operational phase illumination can cause disturbance to roosting, commuting and foraging bats, particularly in regard to the location of bespoke roost mitigation. While all bat species have a low tolerance for light levels, some bat species are particularly sensitive to elevated light levels (Brown long-eared bat, Whiskered bat, Natterer's bat, Daubenton's bat and Lesser horseshoe bat; BCI, 2010). While no definitive information on the acceptable level of artificial lighting on bats is available, <1 lux is considered to be a reasonable level of illuminance below which significant negative impacts on bats are unlikely to occur, at least for the least light-sensitive bat species. Inappropriate illumination during the operational phase will likely cause local displacement of light-sensitive species locally and inhibit them from accessing bespoke roost mitigation in the future.

Less sensitive species Leisler's bat and pipistrelles can be attracted to sources of light to feed on the insects which congregate there (Svensson and Rydell, 1998). This could have the effect of disturbing existing foraging patterns and can introduce competitive advantages to the detriment of more light sensitive species which may be excluded from illuminated foraging resources (Arlettaz et al., 2000).

The overall effect on bats at the proposed development during the operational phase, is considered to be **slight negative at the local level** and is entirely reversible following completion of works (following EPA, 2022).

## 5 Mitigation

Mitigation measures discussed below follow best-practice guidelines outlined by Marnell et al. (2022) and Reason and Wray (2025). A mitigate-by-design approach was followed in the design of the current project, following collaboration between O'Donnell Environmental and the Project Team. Application of the below mitigation will result in a reduction in temporary disturbance effects as much as practically possible, no net-loss in roosting availability, and an increase in the roosting suitability of both structures such that they are capable of hosting maternity colonies.

### 5.1 TIMING OF WORKS

Non-significant day roosting by Common pipistrelle, Soprano pipistrelle and Brown long-eared bat, in addition to night roosting by Natterer's bat have been identified within Apartments 7-11 and Apartments 12+13. Based on current information both structures are likely used by individual/small numbers of bats including during winter when bats may be in torpor and especially vulnerable to disturbance.

Following Marnell et al. (2022) and Reason and Wray (2025), no restrictions on timing of works are considered warranted for 'low' conservation status roosts, although the optimal time for building or reroofing works is during the autumn or spring when bats are active and least vulnerable to disturbance.

However, as discussed above a conservative approach is taken here in relation to mitigation, and so commencement of renovation (e.g. roof stripping, removal of internal structures, raking out of stonework) will ideally avoid the core winter months. Should commencement of renovation be required during the winter, roof stripping works will be carried out under dry/calm weather conditions and when temperatures are no lower than 8°C for at least two hours from dusk on 3-4 consecutive nights (following Reason and Wray, 2025), and the work will be supervised by a bat licensed Ecologist.

### 5.2 PRE-CONSTRUCTION SURVEYS AND SUPERVISION OF WORKS

No significant roosting was identified within the development boundary. Given that ecological baselines will shift over time, a repeat survey will be carried out prior to commencement of works to validate that the ecological context of the sites as described herein remains valid. A bat licensed Ecologist will be engaged to carry out pre-construction emergence surveys of Apartments 7-11 and Apartments 12+13 within the active bat season, with cognisance to Collins (2023). Dependant on the results of surveys, additional measures may be required (e.g. no works during the maternity season in the event a maternity roost has formed on site in the interim although the likelihood of such is considered low).

A bat licensed Ecologist will be engaged to advise in relation to the exclusion of bats in advance of works. Due to the permeability of both structures, total exclusion is not considered feasible. As such, all accessible roosting features outlined within **Section 3.2** will be checked and filled 24 hours in advance of demolition works. Features that could not be blocked (largely associated with the extensive roof and floor structures) will be communicated to the construction team on the day of works and will be subject to supervision during removal.

As an additional deterrent measure, illumination may be installed by a bat-licensed Ecologist to deter bats from roosting. The lighting will be first illuminated at night when bats are active and have left the roost. Lighting will take the form of high-powered construction luminaires within each proposed apartment, pointed upwards towards to the roof structure.

On the day of any proposed demolition works for each portion of structures, a bat licensed Ecologist will provide a toolbox talk and repeat daytime inspections will be carried out on all blocked features to confirm they do not contain bats. These features will then be blocked permanently. Demolition works of the roof and interior floor structures will be supervised by a bat licensed Ecologist. The removal of roofing materials will be carried out with hand tools to minimise the potential impact to any bats roosting within.

Due to the extensive nature of both structures, it is recommended that a phased approach is taken, such that all pre-construction surveys and measures are completed a minimum of 24 hours in advance of works on each section.

### 5.3 BESPOKE ROOST COMPARTMENTS

O'Donnell Environmental have engaged with the project designers, and two bespoke bat attic void compartments will be created above Apartment 8 and Apartment 12 (see **Appendix B**). This measure exceeds the mitigation requirements for 'low' conservation status roosts following Marnell et al. (2022) and will result in the creation of two spaces capable of supporting maternity roosting which did not previously exist.

Brown long-eared bat prefer to roost within large attic spaces (Swift, 1998). Brown long-eared bat are 'fissure roosters', preferring to maintain contact with both the ridge beam and rafters at the apex (Swift, 1998). The bat compartment within Apartment 8 will have a footprint of approximately 40 square metres and an apex height of 1.3m. The bat compartment within Apartment 12 will have a footprint of approximately 30 square metres and an apex height of 2m. The ridge beam will remain exposed, and roof structure within the bat compartment follow that shown in **Plate 4.1**. Double or triple ridge boards may be used with 20-30mm gaps to increase available roosting sites (Razgour et al., 2013). Consideration should be given to increasing the number of internal roosting spaces through the use of rough timber panels, decided in consultation with a bat licensed Ecologist.

Pipistrelles are more general in their roosting preferences, and do not appear to select roosts with specific structural attributes (Jenkins et al., 1998). As such, the design of the bat compartments are considered sufficient to cater for this species also, primarily in the form of the void between the slates and underlay where they are typically encountered (Tom O'Donnell pers. obs.).

The use of bat-safe construction materials may only be used within the bespoke bat compartments. Underlay within any areas of attic to which bats may have access at least must use only traditional bitumen felt (1F). The felt should be cut with 30x100mm slots at 2m intervals along the ridge beam to allow bats to access the void between the slates and felt, and bat-access tiles.

Any timbers must be pressure treated offsite. Onsite application of wood preservative should be avoided, and if necessary, only products certified to be 'bat safe'<sup>3</sup> will be used. The bat-licensed Ecologist will be consulted in relation to any onsite treatment of timber, and details of treatments used will be recorded and included in a post-construction compliance report which will be issued to NPWS.



**Plate 4.1** Example of a Brown long-eared bat colony roosting at apex underneath felt where ridge board joins with rafter. (Photo: Colm Breslin under licence).

Bespoke bat compartments will be sealed off entirely from each Apartment. A locked access-hatch on the interior floor of the bat compartment will be provided to facilitate access for bat-licensed Ecologists to monitor the population within the roost. Any items that might need inspection or maintenance (ventilation units, water tanks etc.) will not be located in the bat compartment. No light fixtures will be attached to the floor of the bat compartment to avoid potential future disturbance from maintenance works. This may be achieved by creating a "double-skin" floor/ceiling where electrical services can be wired through without breaching the bat compartment. A layer of polythene may be rolled along the floor of the bat compartment to catch bat droppings/urine.

Permanent access for bats will be facilitated via the provision of two dedicated lead bat-access tiles for each bat compartment (see **Plate 4.2**). The final locations of bat-access tiles will be determined in consultation with the bat-licensed Ecologist. No artificial lighting will conflict with the location of bat access tiles.

The bat-licensed Ecologist will carry out a final inspection to confirm that the attic roost has been provide as outlined herein. The report will confirm that the dedicated attic roost is appropriately constructed, that bats should not encounter modern roofing membranes in any part of the structures and that bat access tiles have been appropriately located and installed.

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<sup>3</sup> <https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts>



Plate 4.2 - Example of a lead bat-access tile (Photo: Tom O'Donnell).

## 5.4 BAT BOXES

Two **Schwegler 1FF** bat boxes will be installed in the woodland to the south of The Stone Yard prior to the commencement of works, in order to cater for any bats encountered during works, and to provide appropriate short-term roosting opportunities as a result of predicted displacement of individual/small numbers of bats during works.

As outlined in **Section 4.1** above, there is the possibility of 'non-classic' hibernation to occur within both structures. Should demolition works be required in the winter months, a **Schwegler Bat Hibernation Box 1FW** will be installed in advance within the woodland to the south to provide an appropriate short-term mitigation measure for any hibernating bats encountered.

Bat boxes will be installed with the following parameters:

- Installed at a minimum height of 3.5 metres above ground level, and in locations which are inaccessible to unaided climbing (to minimise risk of vandalism).
- In a location which is not vulnerable to artificial light or noise disturbance.
- At a northerly aspect to minimise direct sunlight.

This bat box will be left in-situ post-works and are intended to be a slight enhancement post-works as a result of the proposed project.

## 5.5 LIGHTING

In order to avoid potential impacts of lighting on roosting/foraging bats, construction works will generally take place during daylight hours, and the site will not be lit during the hours of darkness excluding any existing security lighting which has been in place prior to the commencement of works. If some lighting is required for health, safety or security reasons, lighting shall be directed away from sensitive ecological features (i.e. proposed bespoke roost locations) and only illuminate the necessary works area. These measures are considered sufficient to prevent any adverse impacts on roosting, commuting and foraging bats during construction.

The courtyard is currently lit, predominantly by floodlighting on Apartments 7-11. These floodlights will be removed during construction and will not form a part of the lighting regime in the operational phase. Permanent ground-level lighting will be required on the proposed Apartments 7-11 and Apartments 12+13 for safety purposes during the operational phase. Lighting will be designed in accordance with ILP (2023)<sup>4</sup> and Dark Sky Ireland<sup>5</sup> in order to minimise disturbance through light spillage and avoid potential conflict between lighting, bespoke roost mitigation (see **Section 5.3**) and surrounding landscape:

To reduce the ecological disturbance from artificial lighting, the following lighting parameters will be implemented:

- All lighting will be reduced where possible in the first instance.
- Lighting will be motion-sensitive or subject to a dimming regime in the evening.
- Luminaire beams with less than 80-degree angle.
- Use of PC Amber or Filtered LEDs, as these emit minimal ultra-violet light.
- White and blue wavelengths will be avoided; wavelength will be <2,700 kelvin.
- Colour Rendering Index (CRI) must not exceed CRI Ra90.
- Lights should peak higher than 550nm.
- Luminance not exceeding 100cd/m<sup>2</sup> for each luminaire.

## 5.6 MONITORING

Daytime inspections of the bespoke roost spaces will be conducted by a bat licensed Ecologist on one occasion during the maternity season in each year for two years following the completion of works to confirm the successful implementation of the proposed mitigation measures and to monitor the status of the existing population.

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<sup>4</sup> <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

<sup>5</sup> <https://www.darksky.ie/wp-content/uploads/2024/10/Updated-DSI-Environmentally-Friendly-Lighting-Guide.pdf>

## 6 Residual Impacts and Conclusion

The significance of the potential impacts identified in **Section 4** is considered following the application of mitigation outlined in **Section 5**. The description of effects follows EPA (2022). Effects are judged relative to the current or 'do-nothing' scenario (see **Section** Error! Reference source not found.).

The proposed development is considered to be of **Local Importance (Higher Value)** from an ecological perspective due to the presence of roosting bats. Disturbance effects will occur during the construction phase which cannot be avoided or fully mitigated, and these would have a **temporary slight negative impact at a local level**.

With the implementation of robust avoidance and mitigation measures outlined herein the overall ecological effect of the proposed project (relative to the 'do-nothing' scenario) is considered to be a **slight positive effect at a local level** following the completion of works due to an increase in roosting suitability capable of hosting maternity colonies, and reduction in lighting.

## 7 Derogation Licence Application

Non-significant roosting has been identified within two structures: Apartment 7-11 and Apartments 12+13. Bespoke and appropriate mitigation measures have been outlined in **Section 5** above, which exceed the mitigation requirements outlined by Marnell et al. (2022). No additional measures are considered warranted in terms of further reducing the impact of the development on bat species locally.

A derogation license is requested for the proposed works. Please see information below in regard to responses to the three tests which will be considered during the Regulation 54 Derogation decision making process.

### 7.1 TEST 1 – REASON FOR DEROGATION

The reason for the current derogation is contained within Option 2(c) *“In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”*

Jane de Roquancourt intends to redevelop the historic Stone Yard structures (NBHS Ref: 22206709) within the curtilage of Kilshane House. The proposed Apartments 7-11 and Apartments 12+13 are noted to be in a degraded state which threatens the conservation of the historic structure. The absence of maintenance to date has reduced the suitability of the structure for roosting bats, currently considered suitable for individual/small numbers of bats only from available evidence. Continued lack of maintenance will result in further degradation of the roof structures, significantly reducing the suitability for roosting bats in the medium term, and likely complete loss of roosting spaces in the long term.

The provision of on-site accommodation is necessary for the continued viability of Kilshane House as a wedding venue. In turn, Kilshane House is of significance to the local economy in terms of providing employment and opportunities for local small businesses and suppliers.

The renovation of the Stone Yard is thus considered of importance from an economic and architectural heritage conservation perspective. The renovation of such will result in disturbance and temporary displacement of known non-significant roosting, which can be fully mitigated and even enhanced. As such, a derogation licence is required to facilitate the proposed development.

### 7.2 TEST 2 – ABSENCE OF ALTERNATIVE SOLUTIONS

Alternative solutions are considered below and detailed as to their suitability.

#### 7.2.1 Alternative 1 – Do Nothing

Leaving The Stone Yard was considered suitable in the short-term and will result in lack of disturbance to non-significant roosting by individual/small numbers of bats. It was noted that the current degradation to the roof structure has likely already reduced the roosting suitability for bats. As described above, under a do-nothing scenario it was considered that The Stone Yard would become further unsuitable for roosting bats and eventually lost as a roosting space in the medium or long term. Additionally, this scenario will result in the significant degradation of an historic structure.

This solution was not considered suitable, and alternative options are required.

#### 7.2.2 Alternative 2 – Renovate and Exclude Bats Entirely

The second alternative considered was the renovation of The Stone Yard as initially proposed within the planning application, without accommodating for roosting bats in the final design. This scenario would result in the complete and unnecessary loss of roosting opportunities within The Stone Yard, considering the capability of the footprint in accommodating bats.

This solution was not considered suitable, and alternative options are required.

#### 7.2.3 Alternative 3 – Bat Boxes

Following Marnell et al. (2022), the mitigation requirement for 'low' conservation status roosts of individual/small numbers of bats is flexible and may be compensated through provision of bat boxes. However, this is considered sub-optimal due to the capability of incorporating dedicated bat roost spaces within the structures. Bat boxes are included in the current mitigation but are intended as a short-term measure only.

This solution was not considered optimal, and alternative options are required.

#### 7.2.4 Alternative 4 – Renovate and Accommodate Bats with Bespoke Roosts

O'Donnell Environmental collaborated with the Project Team to design bespoke attic roost compartments within Apartments 8 and 12 (see **Section 5.3**). The design of both bat compartments were created to cater for the roosting requirements of Brown long-eared bat, in addition to crevice-dwellers such as pipistrelles. It is considered optimal to retain access to buildings where roosting has been identified due to the higher likelihood of success. This option will result in an increase in roosting suitability within both structures and a capability of hosting maternity colonies, an increase in roosting provision than what occurs onsite currently.

Alternative 4 was considered the most suitable option in this instance.

### 7.3 TEST 3 – IMPACT OF A DEROGATION ON CONSERVATION STATUS

Temporary disturbance effects and displacement of non-significant roosting cannot be avoided due to the proposed development. No evidence of significant/maternity roosting was identified. All species recorded roosting are considered of 'Least Concern' within an Irish context (Marnell et al., 2019). The most recent Article 17 report states the conservation status of such species as 'favourable' (NPWS, 2025). Evidence of roosting within both Apartments suggests individual/small numbers of bats of a widespread and common species.

The mitigation stipulated within **Section 5** seeks to minimise disturbance effects during construction works. A robust bespoke bat roost design has been implemented into both Apartments that will result in a net increase in roosting suitability, capable of supporting undisturbed maternity roosting by Brown long-eared bat and other species during operation. These measures are considered sufficient to effectively enhance the proposed development for roosting bats and exceeds the mitigation requirements for 'low' conservation status roosts as outlined by Marnell et al. (2022).

Considering the above, the proposed derogation is not considered to be detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range, with a slight positive effect predicted.

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# Appendix A - DNA Analysis

**Folio No:** 45-2026  
**Purchase Order:** 202577  
**Contact:** O'DONNELL ENVIRONMENTAL LTD  
**Issue Date:** 03.02.2026  
**Received Date:** 27.01.2026

# Biological Report

Technical Report

Folio No: 45-2026  
Purchase Order: 202577  
Contact: O'DONNELL ENVIRONMENTAL LTD  
Issue Date: 03.02.2026  
Received Date: 27.01.2026

# Biological Sample Analysis

## Summary

Most biological materials (tissue, feces, hair, blood, etc.) contain small amounts of DNA from the organism of which it originated. Using molecular methods such as PCR (polymerase chain reaction) and DNA sequencing, SureScreen Scientifics are able to analyze an unknown sample to determine which species the sample originates from our methods are optimized for the detection of species including bats (over 92% of bat species worldwide can be identified including all 18 UK bat species), mammals; bees, wasps & hornets; birds; fish; plants (from roots, leaves, stem and even dried wood) and many more species.

## Results

Lab ID	Site Name	OS Reference	Sample Type	Species Name	Match(%)
B26 0067	A - Accomodation Attic		Dropping	Greater white-toothed shrew (Crocidura russula)	100.00
<b>Genetic Sequence</b> TTGGGATTGACTAATTCCTTTAATAATTGGCGCCCCTGATATAGCTTTCCCCGAATAAATAACATAAGTTTCTGGC TTCTTCCACCCTTTTCTTCTACTACTAGCTTCTTCCACTGTAGAAGCCGGAGCAGGAACAGGTTGAACTGTTTAT CCCCCTTAGCTGGAAACCTAGCACA					
B26 0068	B - Stables		Bat Dropping	Common pipistrelle (Pipistrellus pipistrellus )	98.40
<b>Apartment 7</b> <b>Genetic Sequence</b> TTGGAAGTACTAGTTCCTAATAATTGGAGCCCCTGACATGGCATTTCCTCGTATAAATAATATAAGTTTCTGAC TCCTACCTCCTTTCTTCTACTACTACTAGCCTCGTCTATAGTAGAAGCGGGAGCGGGTACAGGCTGAACAGTCTA CCCCCTTAGCAGGAAACCTTGCCACGCAGGAGA					
B26 0069	C - Stables		Bat Dropping	Common pipistrelle (Pipistrellus pipistrellus )	100.00
<b>Apartment 11</b> <b>Genetic Sequence</b> CTGACTAGTTCCTAATAATTGGAGCCCCTGACATGGCATTTCCTCGTATAAATAATATAAGTTTCTGACTCCTAC CTCCTTCTTTCTACTACTACTAGCCTCGTCTATAGTAGAAGCGGGAGCGGGTACAGGCTGAACAGTCTACCCCC TCTAGCAGGAAACCTAGCCACGCAGG					

Matters affecting result: none  
Reported by: Consuela Sopronyi

Approved by: Vanessa Hind

Folio No: 91-2026  
Purchase Order: 202577  
Contact: O'DONNELL ENVIRONMENTAL LTD  
Issue Date: 03.03.2026  
Received Date: 24.02.2026

# Biological Sample Analysis

## Summary

Most biological materials (tissue, feces, hair, blood, etc.) contain small amounts of DNA from the organism of which it originated. Using molecular methods such as PCR (polymerase chain reaction) and DNA sequencing, SureScreen Scientifics are able to analyze an unknown sample to determine which species the sample originates from our methods are optimized for the detection of species including bats (over 92% of bat species worldwide can be identified including all 18 UK bat species), mammals; bees, wasps & hornets; birds; fish; plants (from roots, leaves, stem and even dried wood) and many more species.

## Results

Lab ID	Site Name	OS Reference	Sample Type	Species Name	Match(%)
B26 0131	Kilshane House Outbuilding - KA	52.464361, -8.098558	Bat Dropping	Brown long-eared bat (Plecotus auritus)	98.96
<b>Apartment 12</b> <b>Genetic Sequence</b> AATCGGAGGTTTCGGGAACTGATTGGTGCCACCTAATAATTGGAGCCCCTGATATAGNNTTTTCCCCGAATAAATAA CATAAGCTTCTGACTGCTTCCTCCATCTTTTCTACTACTTTTAGCTTCGTCTGCAGTAGAGGCTGGAGCAGGTACCG GTTGAACAGTCTATCCTCCTTTAGCGGGAAACCTAGCCCACGCAGGAGA					
B26 0132	Kilshane House Outbuilding - KB	52.464361, -8.098558	Bat Dropping	Natterer's bat (Myotis nattereri)	98.53
<b>Apartment 12</b> <b>Genetic Sequence</b> ATTATGATCGGAGGCTTCGGAACTGACTGGTTCCTCTTATAATCGGAGCTCCTGATATAGCCTTTTCCTCGAATAAAT AATATAAGCTTCTGACTTCTTCCCCTTCTTTTACTATTATTAGCCTCATCTATAGTTGAAGCAGGAGCTGGTACT GGTTGAACAGTTTATCCACCCTTAGCAGGAAACCTAGCACACGCAGGAGA					
B26 0133	Kilshane House Outbuilding - KC	52.464361, -8.098558	Bat Dropping	Natterer's bat (Myotis nattereri)	98.51
<b>Apartment 12</b> <b>Genetic Sequence</b> ATGATCGGAGGCTTCGGAACTGACTGGTTCCTCTTATAATCGGAGCTCCTGATATAGCCTTTTCCTCGAATAAATAAT ATAAGCTTCTGACTTCTTCCCCTTCTTTTACTATTATTAGCCTCATCTATAGTTGAAGCAGGAGCTGGTACTGGT TGAACAGTTTATCCACCCTTAGCAGGAAACCTAGCACACGCAGGAGAG					

Matters affecting result: none  
Reported by: Vanessa Hind

Approved by: Vanessa Hind

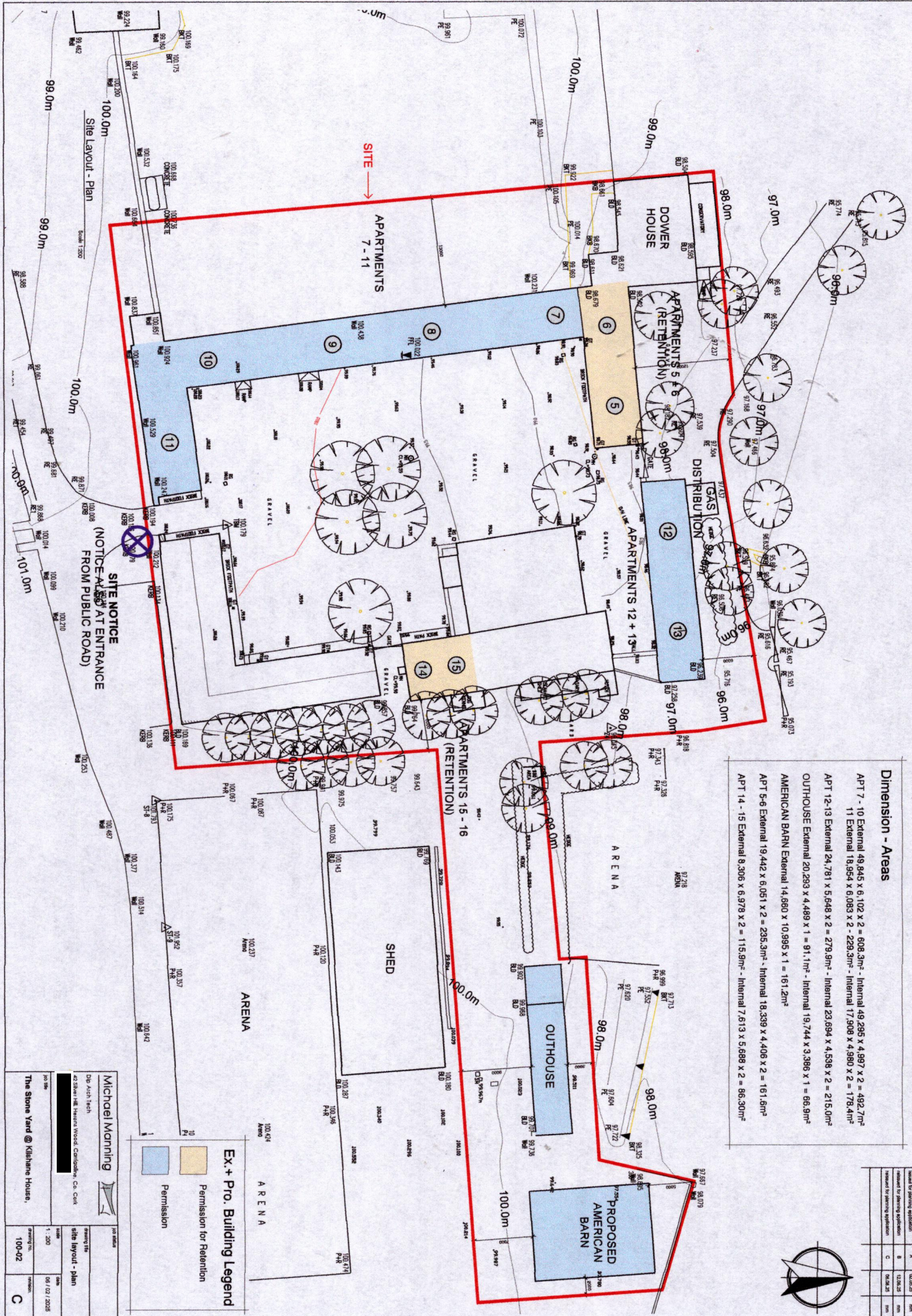
## Methodology

Once samples have arrived in the laboratory, the DNA is isolated using a commercial DNA extraction kit. Using PCR, DNA (if present within the sample) is amplified using universal molecular markers designed to amplify a short fragment of the DNA of the target species group (i.e. mammal, fish, arthropod, reptile, plant etc.). If amplification is successful, the resulting DNA sequence is revealed using a process known as Sanger Sequencing in order to obtain the genetic sequence of the mitochondrial gene within the sample. The sequence results are aligned against a library of known reference sequences using bioinformatics software, which enables us to determine which species the DNA sequence from the sample matches with, informing the species identity and sequence similarity (match %). If the initial analysis is unsuccessful, the entire process is repeated up to two additional times with a fresh reserve sample (if available) in order to obtain a species identification. If no DNA is detected after three attempts, then we can be confident that any further analysis of the sample will likely also fail to result in species identification.

## Interpretation of Results

- Sample Type:** The sample you send to us can come from a variety of sources. Fecal, dropping, urine, hair, blood, carcass (skin, flesh, bone), gamete, plant matter or unknown biological material all contain DNA that we can test for in order to identify the species of origin.
- Genetic Sequence:** The unique DNA sequence obtained from the sample.
- Match (%):** How closely matched the DNA sequence from your sample is to the sequences within our reference database. This can be interpreted as a score of result accuracy, with the maximum score of 100% indicating an exact match of the sample to the indicated species' reference sequence. Lower scores (80-99%) indicate some variation between the sample and reference sequence, likely due to natural variation between individual genetic sequences and/or systematic variations generated through the sequencing process. Scores below 80% similarity should be interpreted with care and can indicate part degraded or part contaminated samples.
- Inconclusive Result:**
- Degraded sample:  
DNA is degraded and we are unable to determine species identification due to degradation of sample DNA. This can happen either before sample collection (old samples, exposure to UV etc.) or after sample collection if stored for long periods before analysis or not handled correctly.
- Inhibited/contaminated sample:  
We are unable to determine species identity due to contamination or the suspected presence of large quantities of PCR inhibitors. Contamination sources can originate from other species which could have come into contact with the samples, or human contamination during sample collection.
- Alternative Result:** Sometimes, for targets such as bat dropping analysis, other mammalian species such as rodents are detected. We find this to be a common occurrence as some bat droppings can be similar in appearance to rodent droppings. Although sometimes unexpected, repeat analyses in these cases would likely return the same results.

# Appendix B - Design Information



Component	Material	Area	Volume	Unit
External to planning application	A	120,273	mm	mm
Internal to planning application	B	120,273	mm	mm
External to planning application	C	100,000	mm	mm

**Ex + Pro. Building Legend**

- Permission for Retention
- Permission

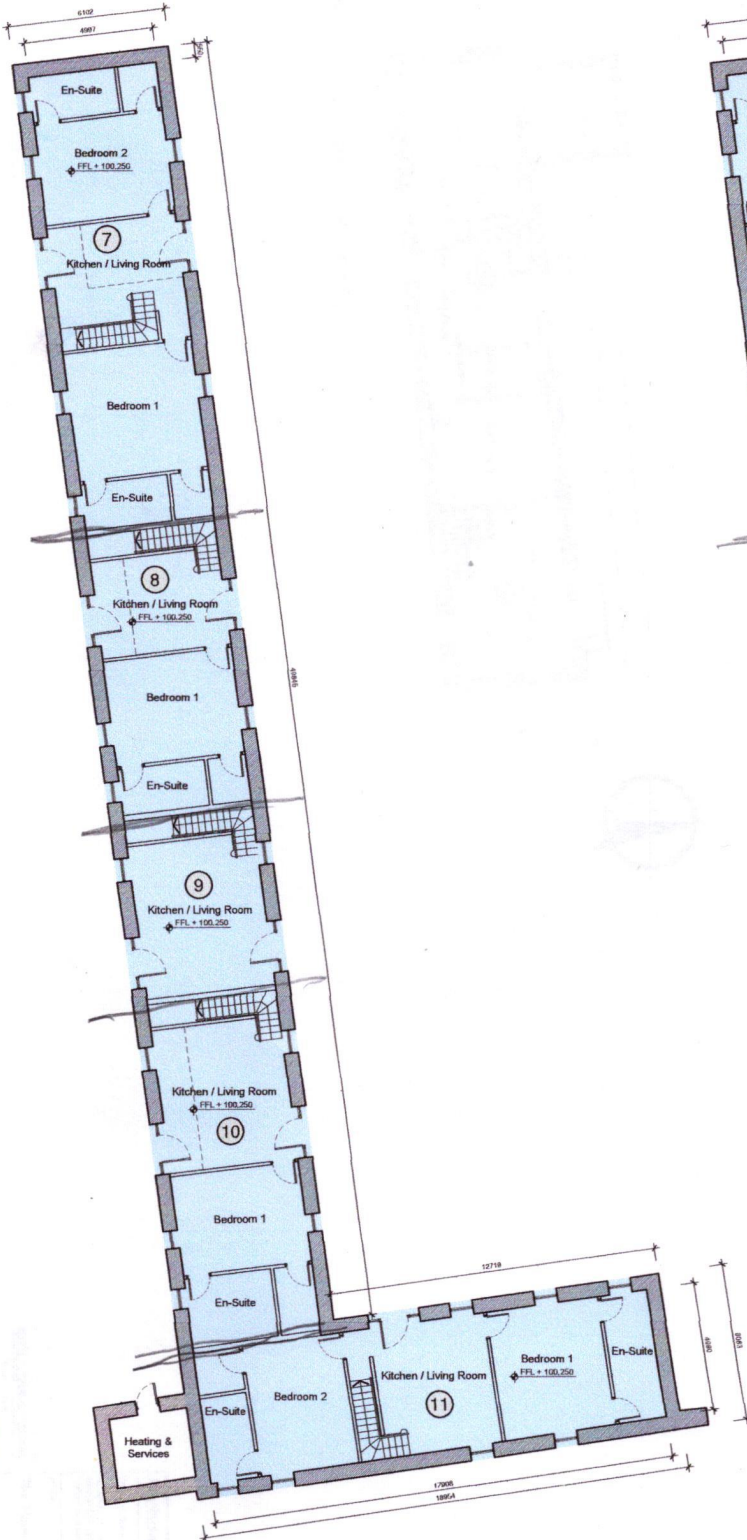
**Michael Manning**  
 DTP Arch Tech  
 42 Stirling Hill, Farnham Wood, Cambridgeshire, Cambs, CB23 9JF  
 Tel: 01223 810000  
 Fax: 01223 810001  
 Email: michael@michaelmanning.co.uk

**The Stone Yard @ Kilbane House.**  
 1:200  
 06/12/2025  
 100-02

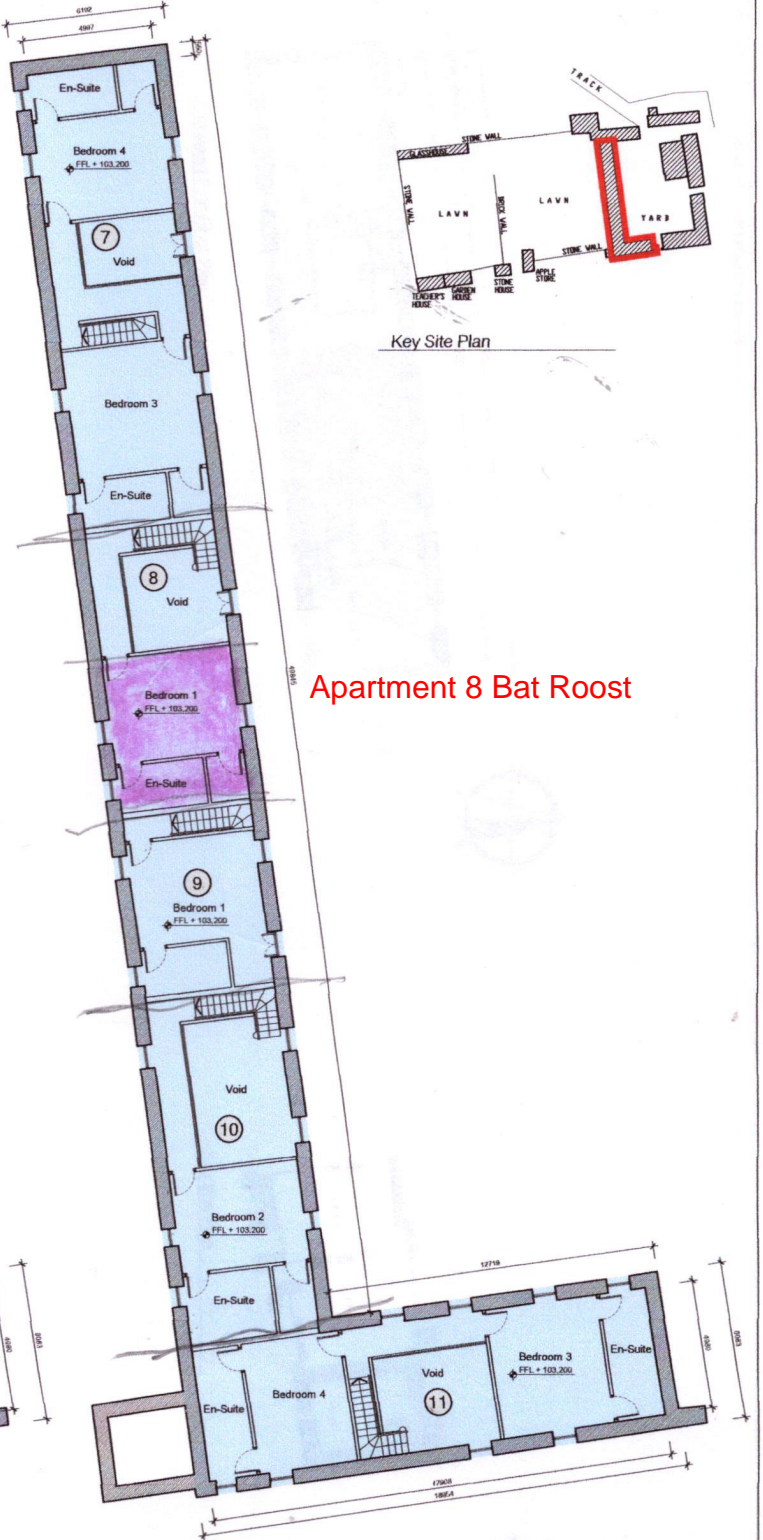
**SITE NOTICE**  
 (NOTICE PLACED AT ENTRANCE FROM PUBLIC ROAD)

**SITE** →

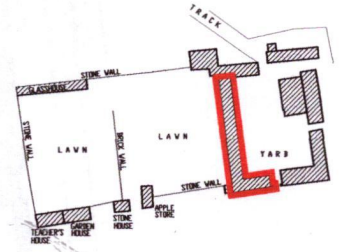
Site Layout - Plan



Proposed Ground Floor Plan  
Scale 1:100



Proposed First Floor Plan  
Scale 1:100



Key Site Plan

Apartment 8 Bat Roost

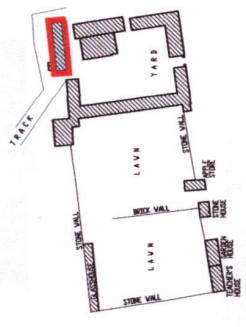
<b>Michael Manning</b>		job status	
Dip. Arch Tech		drawing no.	
17908 188, Mainwood, Co. Cork		proposed apartments 7-11 floor plans	
[Redacted]		scale	date
job title		1:100	14/03/2025
The Stone Yard @ Kilshane House,		drawing no.	revision
[Redacted]		101-03	C



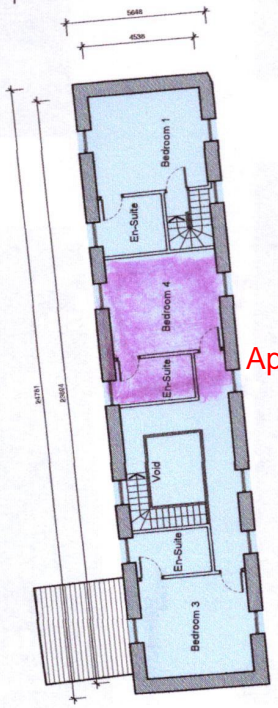
Scale 1:100 @ A1

**A1** PLANNING DRAWING ONLY. THIS DRAWING HAS BEEN PREPARED FOR THE PURPOSE OF PLANNING. NOT - FOR LEGAL CONSTRUCTION - ALL DIMENSIONS ARE IN METERS.

revision	date	comment
A	03.03.20	issued for planning application
B	12.03.20	revised for planning consultation
C	04.03.20	revised for planning consultation

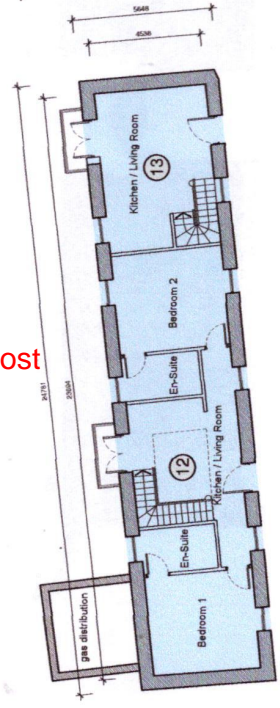


Key Site Plan



Apartment 12 Bat Roost

Proposed First Floor Plan  
Scale: 1:100



Proposed Ground Floor Plan  
Scale: 1:100

**Michael Manning**  
 DE ARCH TECH  
 ARCHITECTS & INTERIOR DESIGNERS, CO. CO. IRELAND

**The Stone Yard @ Kilsbane House**

PROJ NO: 102-03  
 DRAWING NO: 102-03-C  
 DATE: 27/03/2020  
 SCALE: 1:100



**O'DONNELL**   
ENVIRONMENTAL

