An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

Application for Derogation Licence

Under the European Communities (Birds and Natural Habitats) Regulations 2011 – 2021

[

]

- This form is to be used by any person applying for a derogation licence under Regulation 54 or by the Minister under Regulation 54(A)
- Please ensure that you answer questions fully in order to avoid delays
- If you experience any problems filling in this form, please contact the Wildlife Licensing Unit;
- Please note – applications/reports received and licences issued under this derogation may be published on the NPWS website and/or the Department's Open Data website

Wildlife Licensing Unit,

Department of Housing, Local Government and Heritage

National Parks and Wildlife Service

Wildlife Licensing Unit, R. 2.03

90 North King Street

Smithfield

Dublin 7 D07 N7CV

Email: wildlifelicence@npws.gov.ie

Part A. The Applicant: Personal Details

These questions relate to the person responsible for any proposed works and who will be the **named licensee**. As the licensee you will be responsible for ensuring compliance with the licence and its conditions, even though you may employ another person to act on your behalf.

If this application is being submitted on behalf of a third party please also complete Part B below.

1. (a) Name of Applicant

Title (Mr/Mrs/Miss/Ms/Dr)	Forename(s)	Surname
	Michelle and Gary	McNamara
(b) Address Line 1	Tinerana Stables,	
Address Line 2	, Tinerana Beg,.	
Town	Ogonnolloe,	
County	Co. Clare	
Eircode	V94 E2WF	
(c) Contact number	**(d)**	
(e) Email address	michelle@mcnamara-family.net	
(f) Address where works are to be carried out if different from (b) above.		
Address Line 1	Tinerana Stables	
Address Line 2	Tinerana Beg	
Town	Ogonnolloe	
County	Co Clare	
Eircode	V94 E2WF	

Part B. Details of Person Submitting Application on Behalf of Applicant/Licensee

Information relating to the person (e.g. ecologist) responsible for submitting the application on behalf of the applicant/licensee should be entered below:

1. (a) Name of Person/Ecologist

Title (Mr/Mrs/Miss/Ms/Dr)	Forename(s)	Surname
MS	Ruth	Minogue
(b) Company Name	Minogue Environmental Consulting Ltd	
Address Line 1	Gort na habhann	
Address Line 2	Ballymalone	
Town	Tuamgraney	
County	Clare	
Eircode	V94 XHD7	
(c) Contact number	086 6026043	
(d) Email address	Ruth@minogue.ie	
(e) Relationship to Applicant	ecologist	

Part C. The Application

1. **Species of Animal:** Please indicate which species is affected by the proposed works:

- Bat ☒
- Otter ☐
- Kerry Slug ☐
- Natterjack Toad ☐
- Dolphin ☐
- Whale ☐
- Turtle ☐
- Porpoise ☐

2. Please detail the exact species (scientific name): Plecotus auratus, Pipistrellus pygmaeus, Pipistrellus pipistrellus, Nyctalus Leisleri, Myotis daubentonii, Rhinolophus hipposideros

3. Please provide the maximum number of individuals affected* roost of Long brown eared bats estimated 6-10 in total. Other species may be roosting or using the stables as a day roost/feeding roost.

4. Please provide the maximum number of breeding or resting sites affected* 2 stable buildings

5. Please provide the maximum number of eggs to be taken* 0

6. Please provide the maximum number of eggs to be destroyed* 0
*If no figures can be provided for the maximum number of individuals, breeding sites, resting places and eggs to be covered by the derogation please provide reasons why.

6-8 Long brown eared bats confirmed using Stable B, 2-3 confirmed using Stable A.

Additional survey work undertaken in May/June 2025 confirmed continued use of stables by all species listed above. No visual confirmation of bats exiting but static bat detectors recorded all species above. No significant change in population of each species based on 2023 survey data. Slight increase in Lesser Horseshoe Bats in one stable, however confined to likely foraging or resting over 2 main nights.

7. **Species of Plant:** Please indicate which species is affected by the proposed works:

- Killarney Fern ☐
- Slender Naiad ☐
- Marsh Saxifrage ☐

8. If you previously received a derogation for any species of animal or plant please state licence number and confirm that you have made a return to NPWS on the numbers actually affected by that licence

Yes, 2024-91. Return report submitted

9. **Proposed Dates for Works:** Please indicate the timeframe that you propose to carry out works. Dates set by NPWS may differ from dates proposed here.

Start Date:	Roof works 1st October 2025
End Date:	1st April 2026

10. **Please tick which reason below explains How this Application Qualifies under Regulation 54(2)(A-E) of the European Communities (Birds and Natural Habitats) Regulations:**

a.	In the interests of protecting wild flora and fauna and conserving natural habitats	☐
b.	To prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property	☐
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	☒
d.	For the purpose of research and education, of re-populating and re-introducing these species and for the breeding operations necessary for these purposes, including artificial propagation of plants	☐
e.	To allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain specimens of the species to the extent specified therein, which are referred to in the First Schedule	☐

Please see Section 1.4 Derogation license justification in the Bat Report that accompanies this application..

11. **Report Checklist: Please append a detailed report to support this application and ensure that it contains the following information:**

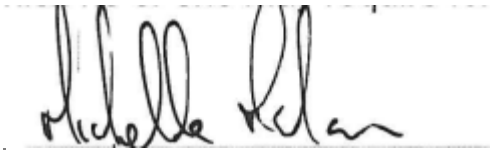
11.1	Explanation as to why the derogation licence sought is the only available option for works and no suitable alternative exists as per Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations.	☒
11.2	Evidence that actions permitted by a derogation licence will not be detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range as is required under Section 54(2) of the European Communities (Birds and Natural Habitats) Regulations.	☒
11.3	Details of any mitigation measures planned for the species affected by the derogation at the location, along with evidence that such mitigation has been successful elsewhere.	☒
11.4	As much information as possible to allow a decision to be made on this application.	☒

Please see Section 1.4 Derogation license justification in the Bat Report that accompanies this application..

Part D. Declaration

I declare that all of the foregoing particulars are, to the best of my knowledge and belief, true and correct. I understand that the deliberate killing, injuring, capturing or disturbing of protected species, or damage or destruction of their breeding sites or resting places or the deliberate taking or destroying of eggs is an offence without a licence and that it is a legal requirement to comply with the conditions of any licence I may be granted following this application. I understand that NPWS may visit to check compliance with a licence.

Please note that under Regulation 5 of the European Communities (Birds and Natural Habitats) Regulations 2011-2021 an authorised officer may enter and inspect any land or premises for the purposes of performing any of his or her functions under these Regulations or for obtaining any information which he or she may require for such purposes.

Signature of the Applicant		**Date**	25th June 2025
Name in BLOCK LETTERS	MICHELEE McNAMARA		

PRIVACY STATEMENT

Please note that under Data Protection legislation Wildlife Licencing Unit staff may only discuss licence applications with the applicant, and not with any third party. See Privacy Statement at www.npws.ie/licences

npws.ie

[Department of Housing, Local Government and Heritage]

An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

BAT SURVEY AND MITIGATION PLAN FOR PROPOSED WORKS AT TINERANA STABLES, OGONNOLLOE, CO. CLARE EXTENSION OF DEROGATION LICENSE APPLICATION DER BAT 24-164

Applicants Gary and Michelle McNamara

Scientific agent: Ruth Minogue

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1 Bat Survey and Mitigation Measures – Tinerana Stables, Ogonnolloe, County Clare

1.1 Introduction

MEC Ltd were commissioned by Gary and Michelle McNamara (applicants) to undertake a bat survey in response to a request for Further Information by Clare County Council as follows (Planning reg 23-60012)

1.2 Purpose of survey

The purpose of the survey is to re survey the relevant elements of the project in light of the time lag between the previous 2017 survey and within the appropriate season. Figure 1.1. presents the project site and boundary at Tinerana Beg, County Clare (52.862942,-8.454602). The surveys over the activity season 2023 found bat activity and use of the stable building by a number of bat species.

Therefore, a derogation license was applied for and issued in Jan 2024. The license expired in March 2024 and another extension of the derogation license was applied for and approved (DER Bat 24-164). Due to delays in appointing construction team, a further application is now required.

Following discussions with NPWS ranger in 2025, it was agreed to undertake additional surveys as follows:

Deployment of static detectors x 2 (Elekon S2) in the two stables, and emergence survey on evening of 12th June 2025. These survey results are presented in Section 3 Results, in bold font for ease of review.

Following a meeting on site with NPWS the following amendments have been made and agreed:

- Swop over the proposed roost spaces with access for bats at the opposite end of the gables on stables A and B
- A conservation approach to the slates and timbers with removal only of what is necessary
- Insert a bat hotbox in Stable A
- Additional tree planting of native species at front of the stone wall facing the Lough Derg shoreline to include alder in the species mix. The additional planting is to be managed for wildlife and not managed as a box hedge.:

Figure 1-1 Project location and boundary

1.3 Competences and limitations

Ruth Minogue MCIEEM undertook the survey work, Ruth has been undertaking bat surveys since 2013 and has attended bat training and conferences as part of CPD. She has previously undertaken full season activity survey work on Newhall and Edenvale SAC (Newhall Stables) over 2013 and more recently bat surveys over 2021 at Ballaghfadda for Clare County Council. Ruth undertakes bat surveys over the active bat season from May to early September for planning applications, master planning and the Acres Traditional Farm Building Schemes and is a licensed ecologist (Bat License Der -Bat 23-96).

Limitations: the weather for the evening surveys was conductive to bat activity and surveys were undertaken during the bat activity season. No limitations were noted.

1.4 DEROGATION LICENSE JUSTIFICATION

1.4.1 Test 1: Reason for seeking derogation

This derogation is being sought on the grounds that the existing buildings, primarily the stables contain bat roosts. In the absence of a derogation license, damage or disturbance to the existing roost and potential mortality of bat species could arise, in contravention of the EC (Birds and Natural Habitats) Regulations 2011, as amended.

This application for a Derogation license is being made under Regulation 54 (2) (c)as follows:

2c) 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:

i) Where the reason is for public health and public safety, summarise the evidence provided to support this reason (e.g. documentary evidence of the risk from a chartered structural engineer, tree surgeon, Garda Síochána, qualified health professional etc.)

ii) Where the reason is 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", summarise the nature of the public interest and how this outweighs the conservation interest of the species under strict protection.

The derogation is being sought on part ii above. This is due to the ongoing housing crisis and the conversion of the stables to a family home for a family with young children would alleviate stress on the housing provision in this area.

1.4.2 Test 2 – There is no Satisfactory Alternative

The Do nothing alternative (Alternative 1) would mean that the works are not undertaken. The outcome of this alternative would be as follows:.

- Without works to maintain the roof and roof structure, proposed as part of the works, there will be continued decline and deterioration of the buildings, this will adversely affect the roof and supporting structures. Over time, the decline will affect the suitability of the building for bats via increased light, change in ambient conditions and temperature etc.

Alternative 2 would be the demolition of the buildings and replacement with a new build. The outcome of this alternative would be as follows:

- Given the current condition of the buildings under the proposal, the potential alternative of demolition of the structures will result in total loss of this roosting space for species. Although the survey results of 2023 and 2025 do not indicate a significant roost ie: maternity colony. The results indicate use of the buildings as roosting for the bat species. The demolition of the stables will result in total loss of the roosting habitat and the accompanying opportunity to enhance and improve the roosting space within the roof of the stables, as agreed in meetings with NPWS.

Alternative 3 is the renovation of the building to reuse as a family home and alternative timing of works to avoid works to roof when bats are most vulnerable to disturbance. The outcome of this alternative is as follows:

- The alternative design incorporates specific attic space, designed as a hot box space for Lesser Horseshoe Bats and access for these species plus long brown eared. This alternative design altered the roost space from that proposed in the 2019 planning application to a more appropriate location within Stable A(southern section) at the south east gable and attic space, closer to existing woodland vegetation, close to the lough shore and further away from other buildings.
- Both lofts in Stable A and Stable B will retain a 9m length of each loft to be used as a bat roost. The entire existing width and height of the loft space in each stable will be retained within the 9m sections for use as a bat roost. The bat loft space will be sectioned from the remainder of the loft space by a stud wall. The existing timber roost, which allows for an uncluttered and unobstructed loft space will be retained. A doorway within the stud partition will be provided for access to the bat roost.
- A bat hotbox will be provided within Stable A-this will be plywood plates over the 3 rafters with a plywood plate either side from the roof ridge, with a large rectangular access area

maintained for the bats; this will enhance roosting conditions within the stable by reducing light into the this part of the building and decreasing draughts. Specific access design (letterbox) on Stable A gable will facilitate access by Lesser Horseshoe Bats and long brown eared bats post works.

- This alternative (Alternative 3) combined with altering works to avoid most sensitive times for bats allows bats to return to the roost unhindered after works have been completed. This alternative is considered the most appropriate in terms of minimising and ameliorating impacts on bat species using the building.

The building is proposed to be used as a house for the family and provision of housing during the housing crisis will alleviate this stress. In the absence of these works, the fabric will decline further and the roost space which supports several bat species will be adversely affected in terms of increased light via tile slippage/loss, changes in ambient conditions due to gaps in roof and increased draughts/exposure to rain and wind. Failure to undertake these works will result in further decay of the areas of the building most affected, namely roof tiles, timber joists and chimney features. The outcome would be adverse effects on bats due to declining roost condition and/or loss of roosts. In addition, this application provides detailed mitigation measures, discussed with NPWS rangers to avoid adverse effects to roosting bats, and provide enhanced roosting space for bat species in the attic space, accompanied by enhancement measures. Given the architectural merit of the stables, the housing crisis and urgent need for family houses, there are no satisfactory alternatives that would enable the same level of conservation and reuse of existing buildings, long-term sustainability and provision of mitigation measures including timing of works and roost retention and provision. There is no satisfactory alternative identified and Alternative 3 as described above provides the

1.4.3 Test 3 impact of derogation on conservation status

This application addresses potential impacts on the local bat population and/or their roosts arising from the proposed works at Tinerana Stables, Tinerana, Ogonnolloe, Co Clare. The strategy outlined in this report includes measures to avoid and minimise disturbance to bats. In light of the size of the roost(s) identified, the nature and setting of the proposed development, the mitigation strategy proposed (see Section 4) along with the fact that the bat species are well established in the area and currently classified as 'Least Concern', it can be concluded that, with the implementation of the proposed mitigation measures, the renovation of the existing stables and conversion to a family home will not have a detrimental impact on the maintenance of the local bat population. Therefore, this will ensure that the national population remains at a favourable conservation status within their natural range[1].

[1] Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

2 Methodology

The following surveys were undertaken:

- Emergence bat survey 11th July 2023
- Re entry bat survey 19th July 2023
- Internal inspection of stables, visual inspection of the bridge 11th and 19th July 2023
- Deployment of static bat detectors 11th to 19th July 2023.
- Emergent Survey 12th June 2025
- Deployment of static bat detectors 30th May to 5th June 2025.

Table 2.1 presents details on the surveys.

TABLE 2-1 BAT SURVEY DATES CONDITIONS AND SUNSET

Date	Sunset/sunrise duration of survey	Weather conditions
11th July 2023	Sunset:21:55. 21:35 to 00.00.	17C, calm Relative humidity 62% 7/8 cloud cover
19th July 2023	Sunrise: 05:32. 04:00 to 05:35.	
11th to 19th July 2023	9 x consecutive nights. Static detectors deployed in Stable A and Stable B. Recording from -15 mins before sunset to + 15 mins after sunrise	
12th June 2025	Sunset 22:00 2 1;45 to 23:00	
31st May to 5th June 2025	7 x consecutive nights. Static detectors deployed in Stable A and Stable B. Recording from -15 mins before sunset to + 15 mins after sunrise	Ranged from 10.2 to 17.4 C.

2.1 Equipment

Ruth Minogue led the survey effort. The team used the following survey equipment:

- Elekon Batlogger M2 x 2
- Elekon Batlogger S2
- Torches

Results were analysed using Elekon Batexplorer software. The surveyors were located inside the courtyard for the emergence and re-entry survey whilst the second surveyor surveyed the northern elevation of the stable and the tower structure for emerging and re-entering bats.

For the 2025 emergent survey, 3 surveyors were situated as follows: two in the yard viewing the front and gable elevations of the Stable A and B. One surveyor by the gable and front of the house facing the towerhouse. .

Preliminary roost surveys were undertaken on the ground floor of the buildings, and access to the loft space was ruled out on safety grounds due to the poor condition of the floor particularly at Stable B. The bridge was visually inspected during daylight hours.

Bats were identified in the field to species level, *Myotis* sp. were identified to family level. During hand-held bat surveys species were identified in real time by recording peak frequency. Notes were also made on the time of recording and type of behaviour of each bat encountered during the activity surveys. The surveyors stayed in these locations for the duration of the survey.

3 Results

3.1 Desktop results

National Biodiversity Database was searched on 17th June 2025 for 10km tetrad (R67) and the following records were returned:

- Brown Long-eared Bat (Plecotus auritus)
- Daubenton's Bat (Myotis daubentonii)
- Lesser Noctule (Nyctalus leisleri)
- Pipistrelle (Pipistrellus pipistrellus sensu lato)
- Soprano Pipistrelle (Pipistrellus pygmaeus)

The bat habitats at landscape scale database was reviewed and this shows the project site and environs is of highest suitability for all bats. See Figure 3.1 below. The National Bat Database of Ireland and the Lesser Horseshoe Bat roost database was also consulted with the following results presented in Figures 3.2 and 3.3 respectively. The closest recorded bat roost in from 2017 and recorded common and soprano pipistrelles and long brown eared. This site is located approximately 300m southwest of the project site. The closest recorded LSH bat roost is east of the town of Tulla over 12km west of the project site.

Figure 3-1 Bat Landscapes

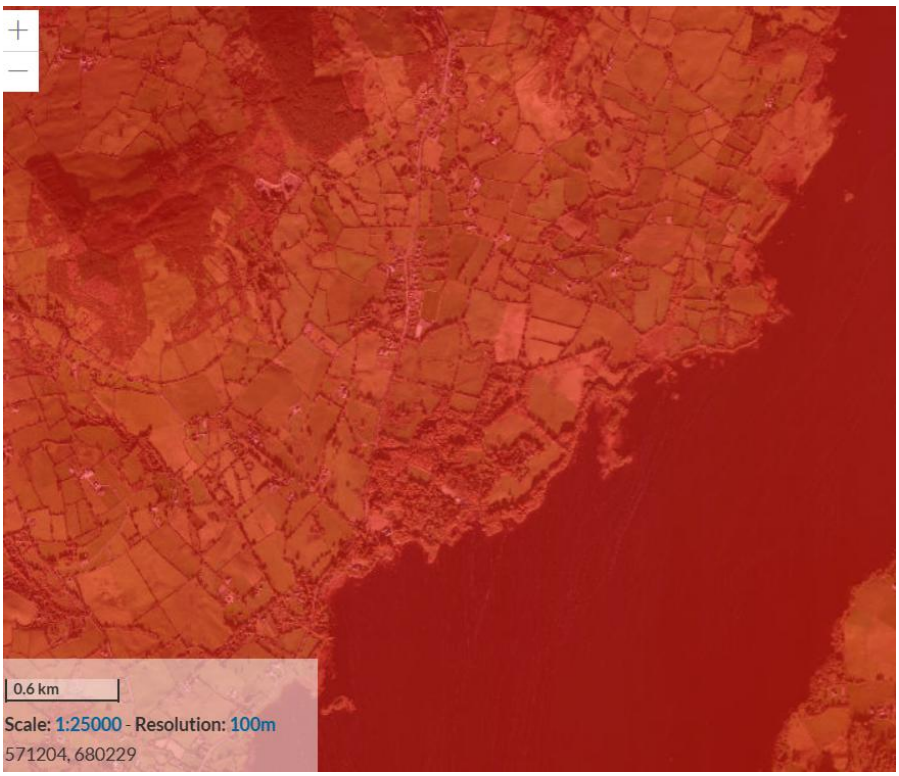


Figure 3-2 National Bat Database

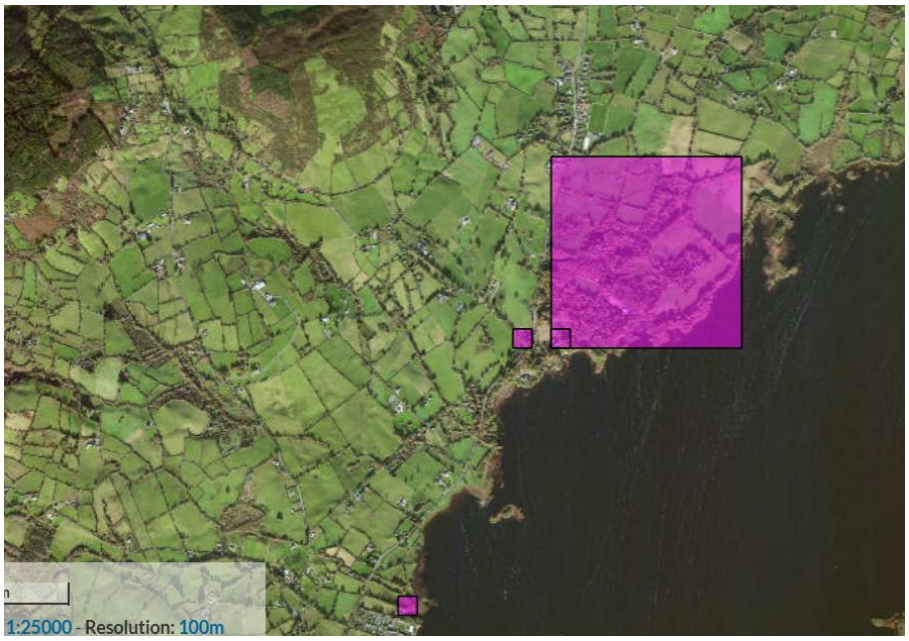


Figure 3-3 Lesser Horseshoe Bats database

3.2 Previous surveys 2017 Stable buildings (October 2017)

In summary, the 2017 survey results, outside the optimum period recorded evidence of roosting Long Brown Eared bats as follows:

"Evidence of roosting bats was observed in the lofts of both Stables A and B. Two individual Brown long-eared bat were observed roosting in the Stable A, while one individual Brown long-eared was observed roosting in the rafters of Stable B. Bat droppings, most likely associated with Brown long-eared bats were noted throughout both stable lofts. In the Stable A, loft space the droppings were concentrated in the loft chamber occupying the southwestern half of this building. Here light levels are very low during daytime and conditions are ideal for roosting bats. Currently light levels are higher towards the northeast gable end of this loft due to the presence of a permanently opened door void to the loft. One pile of droppings was noted in this loft chamber. Prey remains were also noted throughout the loft (see Appendix 1 Plates). In the Stable B loft space bat droppings were also noted throughout with both droppings and prey remains also noted at either gable end.

Individual droppings were noted in the Tower loft to the southeast of the stables. These droppings were noted on a bed below the opened loft space hatch and small numbers were also noted within the loft space. The dimensions of this loft are currently restricted and relative to the lofts in the stable buildings do not offer the same high quality roosting opportunities for bats. No bat field signs were noted in the corrugated stable on the northwest side of the stable courtyard"

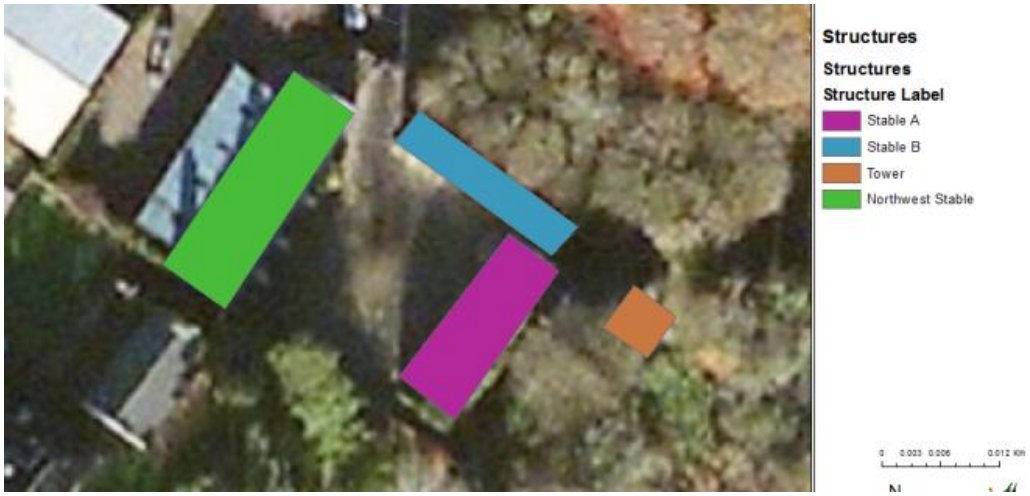
"The masonry-arched bridge where maintenance works are proposed was inspected by the project architect during the summer of 2017. The project architect noted that previous concrete and masonry repointing has been undertaken on the entire bridge arch deck and that no crevices remained within the deck. "

3.3 2023 Survey results

For consistency the following buildings are referred to as per the original bat survey as follows:

- Stable A: south east stable
- Stable B: north east stable
- Northwest stable (corrugated roof)
- Tower – forms part of the existing house
- Bridge

Figure 3-4 Structures referred to Bat survey and mitigation strategy



3.3.1 Visual inspection

The north west stable did not show any visual signs of roosting bats. The ground floor of Stable A had a number of droppings on the ground floor underneath the middle of the building and a dead bat was noted, though decomposition was advanced, so species was not confirmed. No evidence of roosting bats was noted associated with the daytime inspection of the bridge.

3.3.2 Emergence survey 11th July 2023

Two long brown eared bats were observed flying out (dropping and flying) from Stable A at 23:06. See Plate 3.1 below. Bat species recorded during the emergence survey including foraging behaviour particularly at the scrub in the southern corner of the site.

Plate 3-1 Stable A – exit by Long Brown eared bats.

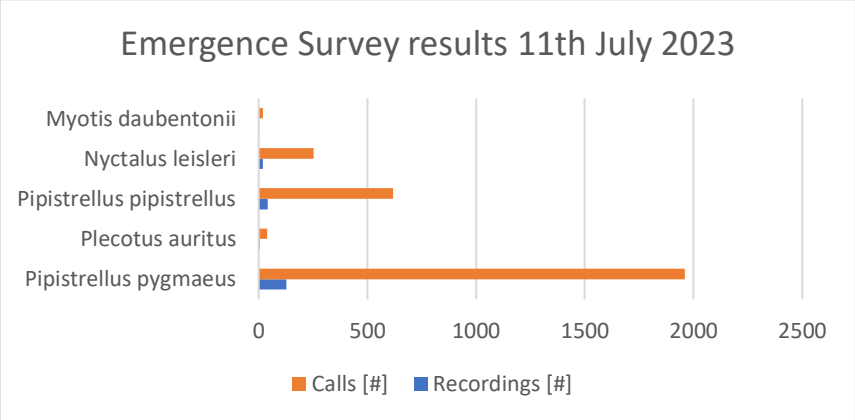
The most frequently recorded species were soprano pipistrelles (127 calls), followed by common pipistrelles (42), and much less frequently recordings of Leisler bats(20), Long brown eared bats (4)

and one recording of Daubenton bat. Figure 3.5 presents the overall results of activity over the emergence survey.

No bats were recorded emerging from the tower during the emergent survey of 11th July 2023.

No bats were observed emerging from the northwest stable but individual soprano pipistrelles were observed foraging within the north eastern open access part of this building through the evening.

Figure 3-5 Emergence Survey Results 11th July 2023



3.3.3 Re entry survey 19th July 2023

During the dawn survey of 19th July, between 6 to 8 individual Long Brown eared bats were observed flying into the loft door at Stable B. See plate 3.2 below. No other species were observed returning to the stables during the dawn survey.

Plate 3.2 Access for Long Brown Eared Bats

3.4 Static Detectors 2023

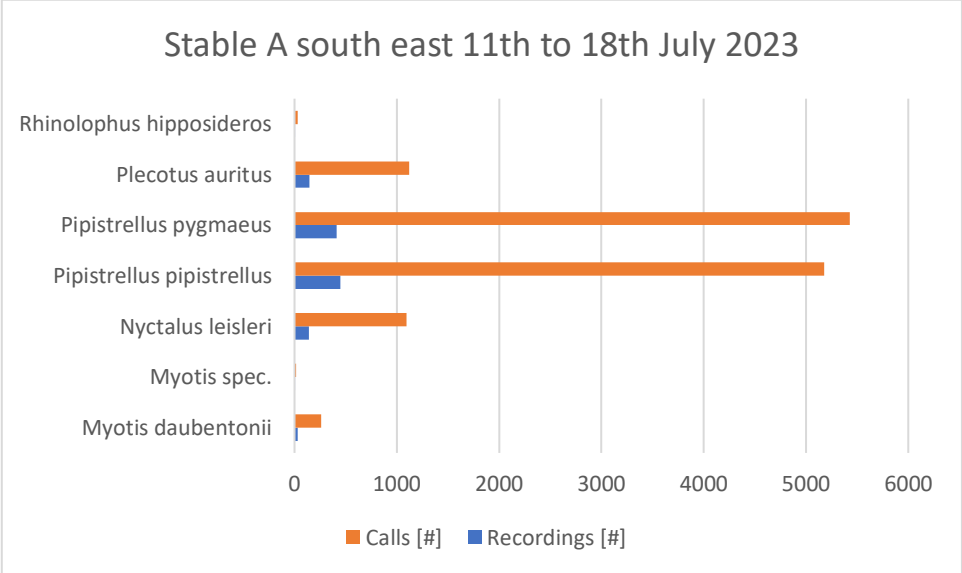
The location of the static detectors deployed (Batlogger S2) is shown below:

Figure 3-6 Blue circles indicating location on loft floor for static detectors 11th to 19th July 2023

3.4.1 Stable A-South East Stable

Over the 8 nights recorded in the loft of Stable A[2], the most frequently recorded species were Common pipistrelle (446 records), Soprano pipistrelle (410 records), Long brown eared (145 records), Leisler (138 records) and Daubenton bats (33 records). Lesser Horseshoe bat was recorded on one night, the 13th July at 00:33, 00;34 and 02:11.

Figure 3-7 Stable A Static Detector results 11th to 18th July 2023



3.4.2 Stable B North East Stable

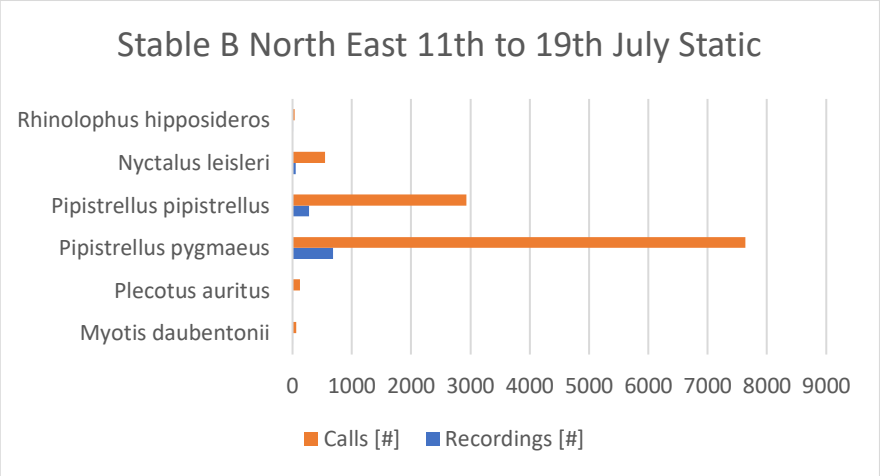
Over the 9 nights recorded in the loft of Stable B[3], the most frequently recorded species were soprano pipistrelle (679 records), followed by common pipistrelle (277 records). Again in much lower numbers,

[2] Eleken 0233 static
[3] Elekon 0773 static

Leisler bats (51 records), Long brown eared (10 records), and Daubenton bats (10 records). Lesser horseshoe bat activity was recorded more frequently in Stable B on the following dates

- 13th July at 00:33
- 16th July at 23:44 to 23:47
- 18th July at 22:53 to 22:57, and 03:29
- 19th July at 00:22.

Figure 3-8 Stable B Static Detector results 11th to 19th July 2023



3.5 Static detectors 30th May to 5th June 2025

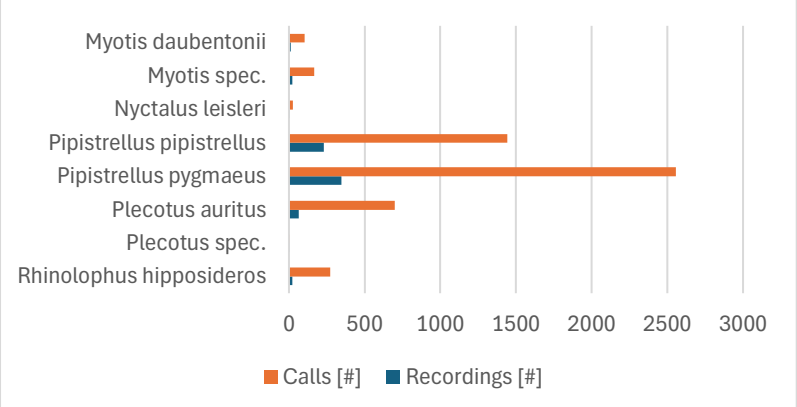
Two static detectors (Elekon S2) were deployed in the same position in the Stable A and Stable B for 7 nights on the above dates. Temperatures ranged from 10.2C to 17.4C over the course of the recordings.

3.5.1 Stable A: South east stable 30th May to 5th June 2025

Over the 7 nights recorded in the loft of Stable A, the most frequently recorded species were soprano pipistrelle (345 records), followed by common pipistrelle (231 records). Long brown eared bats were recorded in lower numbers (64 recordings), Lesser Horseshoe Bats (23 recordings) and Leisler bats (6 recordings), Myotis spp (24 recordings), Daubenton (11 recordings.)

Lesser horseshoe bat activity was recorded in Stable A on 30th May, 1 to 3rd May 2025 with greatest number of calls on 30th May 2025.. Appendix D presents all species per hour per call for both static detector results for 2025.

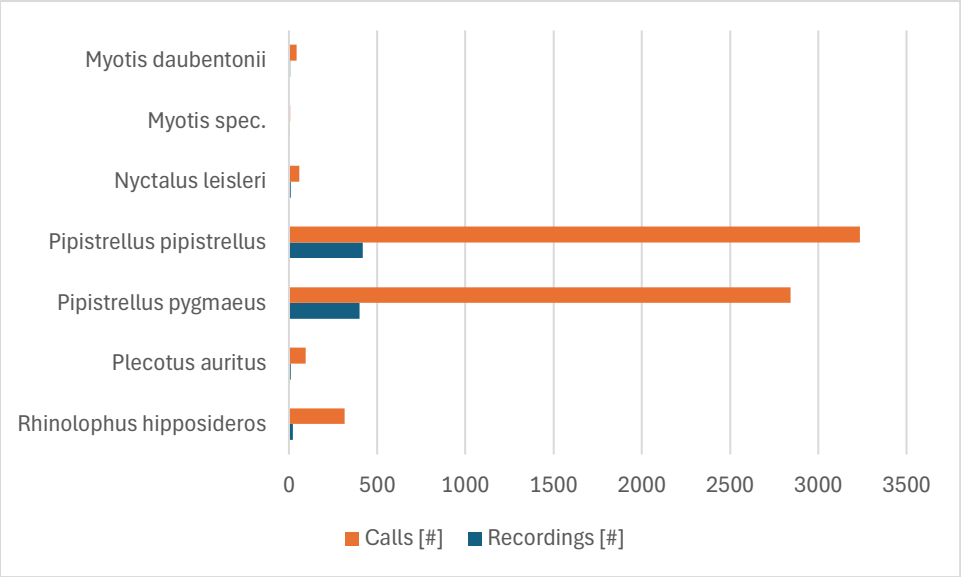
Figure 3-9 Stable A Static Detector Species result 30th May to 5th June 2025



3.5.2 Stable B: North East Stable

Over the 7 nights recorded in the loft of Stable B , the most frequently recorded species were common pipistrelle (419 records), followed by soprano pipistrelle (399 records). Again in much lower numbers, Lesser horseshoe bat activity (22 records), low numbers of Leisler bats (10 records), Long brown eared (10 records), and Daubenton bats (8 records). See Figure below.

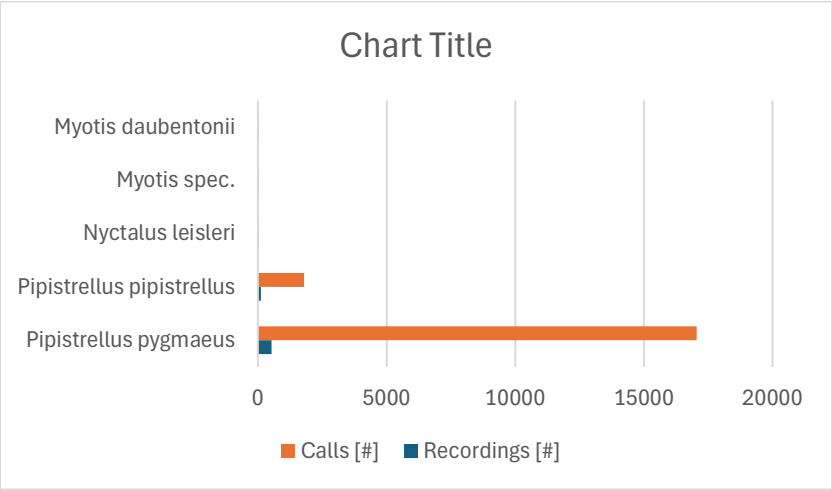
Figure 3-10 Static recorder results 30th May to 5th June 2025 Stable B.



3.6 Emergent Survey 12th June 2025

No bats were observed exiting any of the stables or tower house over the course of the emergent survey.

Bat activity was quite high with most visual observations noted bats flying from the woodland southwest of the courtyard, flying across the yard and over the stables. Bat activity was dominated by common and soprano pipistrelles over the course of the survey with three Myotis spp, and an individual recording each of a Daubenton and Leisler bat.



3.7 Evaluation

Based on the 2023 surveys, both stables support roosting bats of Soprano, Common pipistrelle, Long brown eared bats, with Daubenton and Leisler bats in low numbers and occasional activity by Lesser Horseshoe Bats. The bats that were visually confirmed using both stables were Long Brown Eared bats which supports the results of the 2017 survey.

An analysis of the time of species activities suggests activity by common and soprano pipistrelle throughout the night possibly including foraging in the farm yard and the buildings themselves. No bat activity was observed at the tower during the surveys. However, this may be due to difficulty in access given previously there was evidence of bat use albeit in lower numbers as the stables offer good roosting space.

Reviewing and comparing the 2023 and 2025 results, Soprano and Common pipistrelle remain the most frequent species recorded in the stables. A smaller number of Long Brown Eared bats and Leisler bats were recorded for both stables in 2025, allowing the shorter time period for the static detectors as 9 nights in 2023 and 7 nights in 2025. Lesser Horseshoe Bats were recorded over 4 nights in low numbers in Stable A, a small increase from 2023. They were also recorded in Stable B, with 13 of the 22 recordings over the night of 31st May between 22:56 to 23:56. The 1st June between 23:37 to 23:58 saw 6 further recordings of LSH for this stable with the remaining records 4 spread over 31st May (1 recording) and 2nd June (2 recordings).

Therefore, as both stable buildings have been identified as a roost for Soprano, Common pipistrelle, Long brown eared bats, with Daubenton and Leislers in low numbers and occasional use by Lesser Horseshoe Bat, in order to comply with legislation it remains necessary to apply for an extension to the existing derogation license 24-01 under the Wildlife (Amendment) Act 2000 permitting the disturbance to the stables during the renovation works. Works to the stable buildings will only proceed upon receipt of a derogation licence.

The following section is provided for information and comprises the Bat Mitigation Strategy for the derogation license application process that has been discussed with local NPWS ranger.

4 Bat Mitigation Strategy

The most critical issues for mitigating the potential impact to roosting bats include the maintenance of a suitable structure at the stables of an adequate size, with appropriate bat access points that is free from routine disturbance during the operation phase of the buildings. The timing of construction activity will also be critical in ensuring bats are not significantly disturbed. Mitigation measures proposed to achieve the continued used of the stables and/or tower as bat roosts are outlined in the following sections of this report.

The timing of construction activity will also be critical in ensuring bats are not significantly disturbed.

Mitigation measures proposed to achieve the continued used of the stables as roost are outlined in the following sections of this report.

4.1 Pre Construction Timing

The timing of the renovation works is of significant importance to ensure disturbance to bats is avoided.

- Any works to the roof area for the roosting bats must be undertaken outside the bat maternity season; i.e. 1st October-1st May is the optimum period for carrying out works.
- A preconstruction survey will be undertaken immediately prior to the commencement of construction activity to ensure that no bats are present at the stables.

4.2 Scaffolding and inspections

- The erection of scaffolding can hamper bat access during the bat activity season and should be considering during siting and especially if plastic sheeting is proposed
- Some (if not all) access points must be retained during the works

4.2.1 Disturbance/discovery of bat during construction

In the event that a bat(s) is discovered during any stage of the proposed works the following actions will be taken to ensure that no harm will be caused to the bat(s):

- All works within the vicinity of where the bat(s) is found will immediately stop;

- The bat(s) will be removed by a suitably qualified and licenced Ecologist and placed within a temporary bat box which will be kept under suitable conditions (dark, dry, warm, quiet location) for the duration of the day;

- Works will only commence once it has been established by the Ecologist that no other bats are present within the vicinity of where the previous bat(s) was found;

- Measures will be taken to ensure that the bat(s) cannot reuse the roost in which it was found (e.g. blocking/filling the hole in which it was found; and

- The bat(s) will be released from the temporary bat box by the Ecologist after sunset on the same day that it was removed from Tinerana Stables.

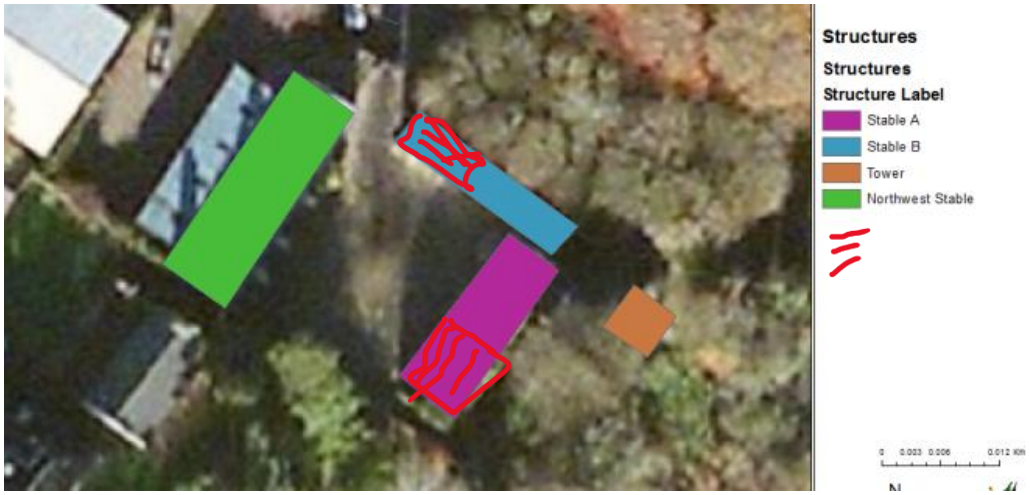
4.3 Ecological Clerk of Works

Given the location of the project adjacent to the Lough Derg (Shannon)SPA, an ecological clerk of works will be appointed to provide oversight and ensure implementation of mitigation measures as they relate to ecological resources, mitigation and monitoring. This is included in the accompanying Natura Impact Statement.

4.4 Bat roosts

Dedicated roosts will be retained in the lofts of both Stables A and B and also within the tower (see Figure 4.1 for locations).

Figure 4-1 Location of dedicated roosts in Stables A and B – shown in red is the new locations following NPWS consultation



4.4.1 Roost dimensions

The SOUTHERN section of the Stable A and the WESTERN section of Stable B will be retained as a bat roost. A length of 9m of each loft will be retained to be used as a bat roost. The entire existing width and height of the loft space will be retained within the 9m sections for use as a bat roost. The bat loft space will be sectioned from the remainder of the loft space by a stud wall. The existing timber roost, which allows for an uncluttered and unobstructed loft space will be retained. A doorway within the stud partition will be provided for access to the bat roost.

A HOTBBOX WILL BE PROVIDED WITHIN STABLE A -this will be simply plywood plates over the 3 rafters with a plywood plate either side from the roof ridge, with a large rectangular access area maintained for the bats; this will enhance roosting conditions within the stable by reducing light into the this part of the building and decreasing draughts. See image below.

- Access to the bat roost will be restricted to the time of year outside the bat roosting season from April to October. No windows or open external voids will be inserted into the roof space of any of the three bat roosts. This will ensure that the loft spaces remain dark during the

daytime. A loft space will be provided in the tower, the entirety of which will be provided as a bat roost. In total three separate loft spaces will be provided as roosting habitat for bats.

- Bat access to the lofts will be provided at the SOUTHWEST gable end of the Stable A; the WESTERN gable end of Stable B and on the SOUTH facing side of the tower loft.
- Architectural drawings of each of the bat roosts in both lofts and the tower are provided as part of the response to this FI and are reproduced in Appendix 2 below. The extent of the proposed loft area to be retained and used exclusively for bats as part of the renovations are over and above the minimum dimensions required for roosting bats will provide suitable roost site for bats into the future.
- The entrances will be sloped downwards and outwards with waterproofing (e.g. lead lining) below to minimise ingress by rain. An optional canopy above can be used.
- Given the presence of Lesser Horseshoe Bats, the proposed access has been adjusted to accommodate these species, as follows:
    - Additional draught reducing and light deflecting baffles could be used in conjunction with this access feature. Any weather shielding will not restrict roost access.
    - A letter box access is proposed-. These are installed as low as practically possible on the gable wall but at least 0.4m above the level of the deck. The opening will be a minimum of 20cm x 30cm (600cm2) with a larger area preferable. This ensures that bats are away from clutter during access and will not be impeded by any potential bird's nests.
    - The access will be open to facilitate access by Lesser Horseshoe Bats as well as Long Brown eared bats. See figure below for design of letter box access.

Figure 4-2 Letterbox design for roost access (Wildwood Ecology)

4.5 Roost requirements

- Any re-roofing must be provided on a like-for-like basis, using natural slate roof and a bat-friendly roof membrane (i.e. Bitumen 1F felt).
- Breathable roof membranes (BRM's) are not suitable in bat roosts.
- Timbers within the areas of the roost to be retained as bat roosts will remain untreated or if treatment is required, timbers will only be treated by substances that are considered harmless to bats.

- Rough timber should be provided in the roost space to allow bats to hang off them (as opposed to very smooth timber which can be difficult to grip)
- These species are generally found in older roofs of traditional construction giving a large uncluttered void, so typical trussed rafter construction must not be used. Suitable construction methods are purlin and rafter ('cut and pitch') with ceiling ties or possibly attic trusses, which are designed to give a roof void large enough to be used as a room[4].

4.6 Habitat Creation and Enhancement

4.6.1 landscape measures

It is noted a number of mature trees have been felled close to the roosts. These would have provided connectivity for the bats emerging from their roost. It is recommended that a new double staggered hedgerow be replaced along the avenue as indicated on the outline landscape plan. It is recommended this comprise a mix of faster and slower growing native species including Silver Birch with occasional Oak, and a shrub mix of hawthorn, blackthorn and elder. See Appendix B for landscape plan. This has been amended to include new planting at front stone wall facing Lough Derg shoreline. Species mix to also include alder.

4.6.2 Lighting

Additional illumination can deter bats from using a roost. External lighting at the roost access points should be avoided as well as along the shoreline of the Lough Derg SPA.

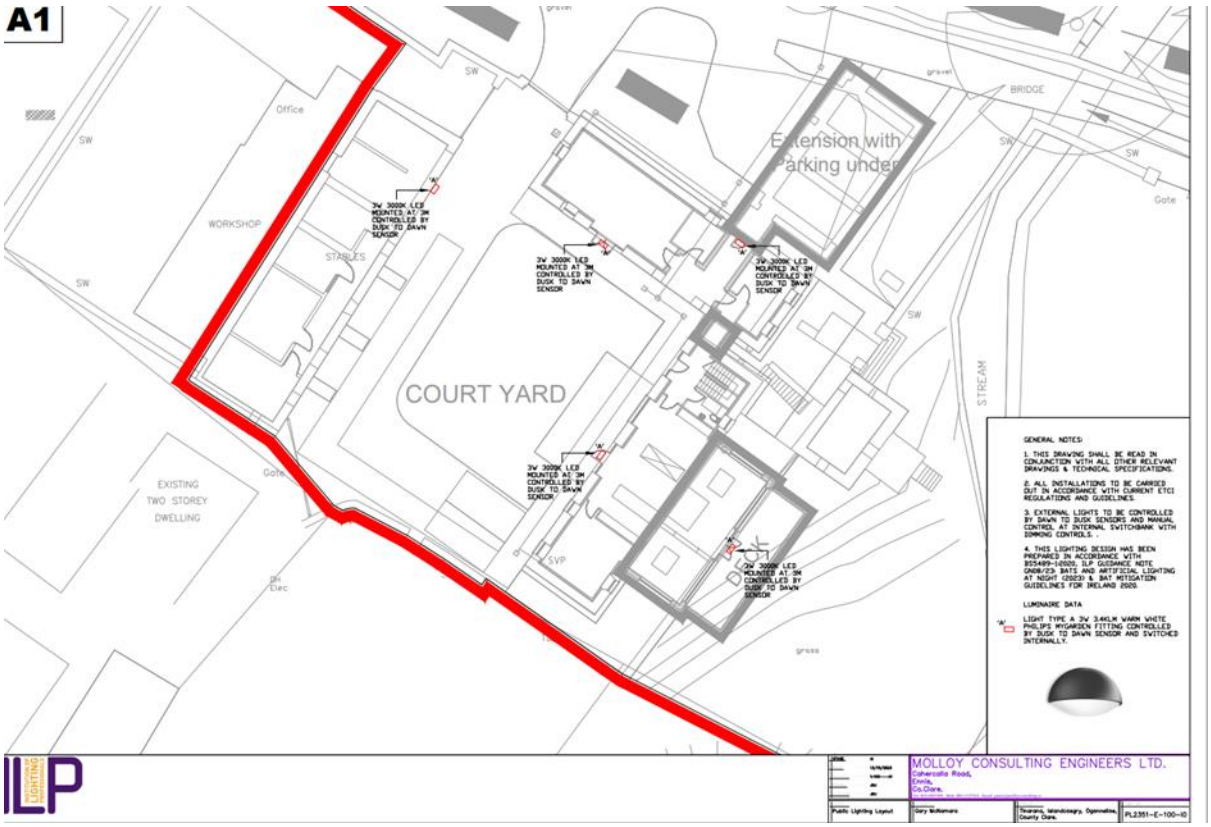
Monitoring of light levels along the woodland and shoreline habitats will be undertaken pre-construction, during construction and post-construction to identify any areas where light spill is affecting background levels during construction or operation. Where monitoring detects light spill is affecting these habitat areas remedial action will be undertaken in conjunction with the contractor and NPWS.

More generally external lighting should be minimised and avoid light spill such as security flood lightings or excessive lighting along the new hedgerow planted avenue and the woodland adjacent to the house and farmyard.

Lux levels close to the roost exit and woodland habitat should aim to be less than 1lux where possible. External lighting should be designed in line with the Guidance Note GN08/23 Bats and Artificial Lighting At Night (2023) and Bat Mitigation Guidelines (2022). This is very important for the presence of Long Brown eared, Daubenton and Lesser Horseshoe Bats as these are very light sensitive species. Figure 4.3 shows the lighting layout that has been reviewed by MEC Ltd and has provided minimal exterior lighting.

[4] IWM 134 (2022) Bat Mitigation Guideline pg 54

Figure 4-3 Lighting plan for external lighting



4.7 Post construction and Operation Phase monitoring

On completion of the proposed development and bat mitigation measures a full report will be compiled and presented to the Wildlife Licensing Unit.

In order to monitor the success of the mitigation measures, monitoring of the roost will be undertaken on the first, third and fifth year after the completion of the renovations. The monitoring will be undertaken by an experienced bat ecologist and will involve bat inspection surveys and bat activity surveys at the roost site to establish the roost size. The results of monitoring surveys will be provided to the NPWS.

Bibliography

NPWS & VWT (2022) Lesser Horseshoe Bat Species Action Plan 2022- 2026. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland

A. J. Mitchell-Jones (2004) Bat mitigation guidelines Version: January 2004. English Nature:

Eds A.J. Mitchell-Jones and A. McLeish)Bat Workers Manual (3rd Edition) (

Bat Conservation Ireland (2008) An investigation of the impact of development projects on bat populations: Comparing pre- and post-development bat faunas.

Bat Conservation Trust (2012) Landscape and Urban Design for bats and biodiversity.

Bats and Buildings Bat Conservation Trust (nd).

Knight, T. & Jones, G. (2009) Importance of night roosts for bat conservation: roosting behaviour of the lesser horseshoe bat Rhinolophus hipposideros. Endangered Species Research, 8, 79–86

Marnell, F. & P. Presetnik (2010): Protection of overground roosts for bats (particularly roosts in buildings of cultural heritage importance). EUROBATS Publication Series No. 4 (English version)

Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12, Terrestrial Mammals. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland. Mullen, E.

(2019) The Status of EU Protected Habitats and Species in Ireland. Volume 1.

Roche, N., Aughney, T., Marnell, F. & Lundy, M. (2014) Irish Bats in the 21st Century, 1st ed. Bat Conservation Ireland.

Voigt, C.C. & Kingston, T. (2016) Bats in the Anthropocene: Conservation of Bats in a Changing World, 1st ed (eds CC Voigt and T Kingston). Springer.

Anna Berthinussen, Olivia C. Richardson & John D. Altringham (2019) Bat Conservation Global evidence for the effects of interventions Synopses of Conservation Evidence

Dietz, C and Kiefer, A. (2014) Bats of Britain and Europe. Bloomsbury Wildlife, London.

The Vincent Wildlife Trust's Irish bat box schemes Kate McAney & Ruth Hanniffy July 2015. Vincent Wildlife Trust

P. F. Reason / Conservation Evidence (2017) 14, 52-57 52 ISSN 1758-2067 Designing a new access point for lesser horseshoe bats, Gloucestershire, U

Websites:

www.biodiversityireland.ie

www.batconservationireland.ie

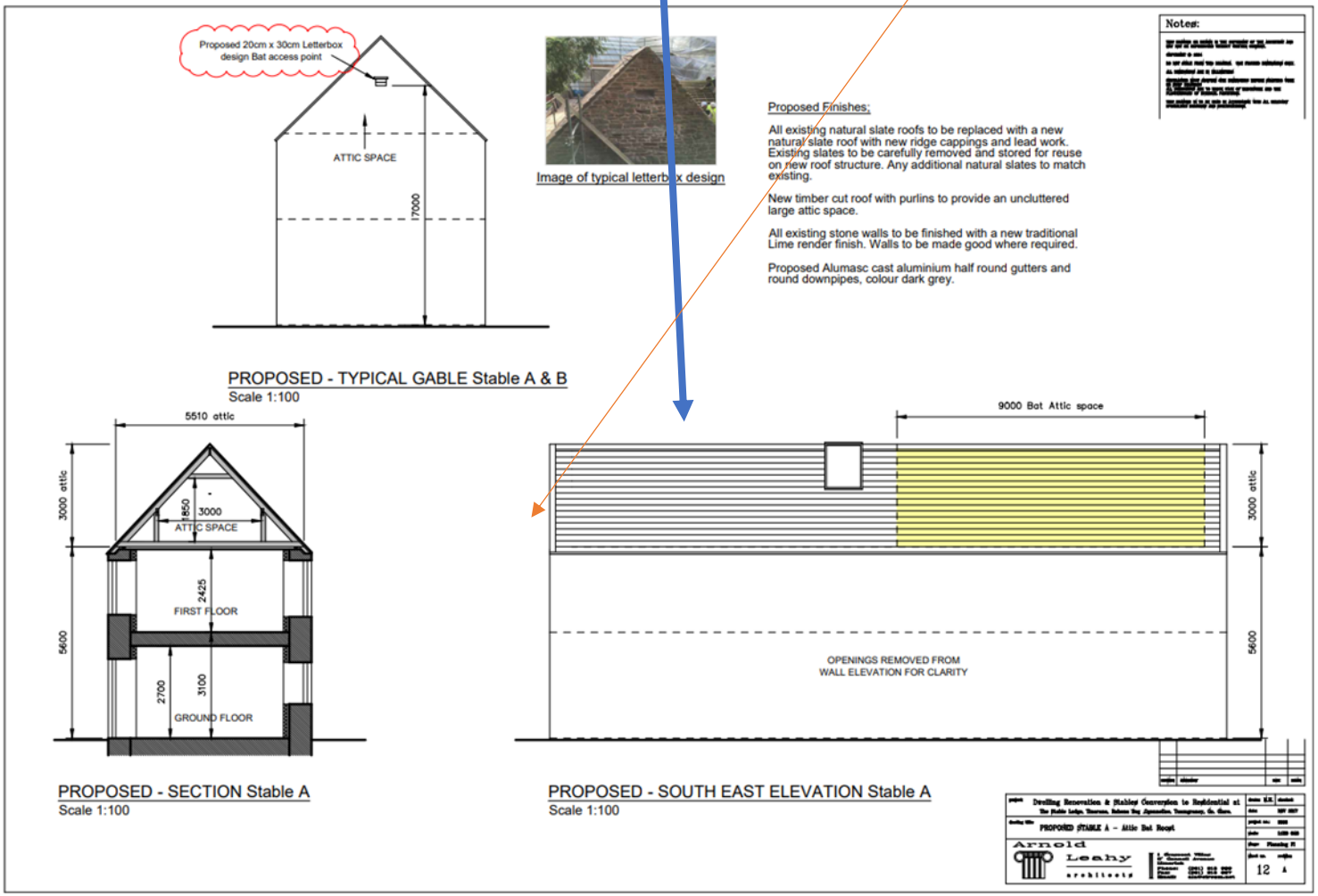
www.vincentwildlifetrust.ie

www.batsorg.uk

www.eurobats.org

Appendix A: Roost layouts and designs for Stable A and B and Tower.

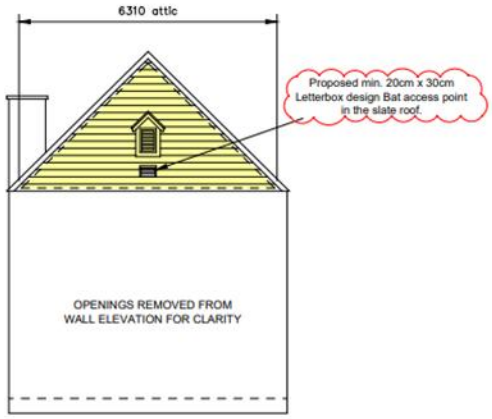
The roost spaces have now been swopped over as indicated on the arrows below remaining at 9000 x 3000 with access at other gable indicated with red arrow



Notes:

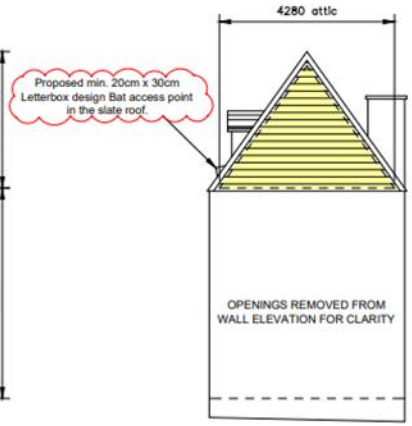
Example of roof letterbox design

EXISTING TOWER TO BE STRIPPED BACK TO ITS ORIGINAL RECTANGULAR SHAPE AND CLOSE UP MODERN OPENINGS AND MAKE GOOD.
EXISTING MODERN SLATE ROOF & FASCIA TO BE REPLACED WITH A TRADITIONAL NATURAL SLATE ROOF AND NARROW STONE FASCIA.



PROPOSED - SOUTH EASTERN ELEVATION Tower
Scale 1:100

PROPOSED - SECTION Tower
Scale 1:100



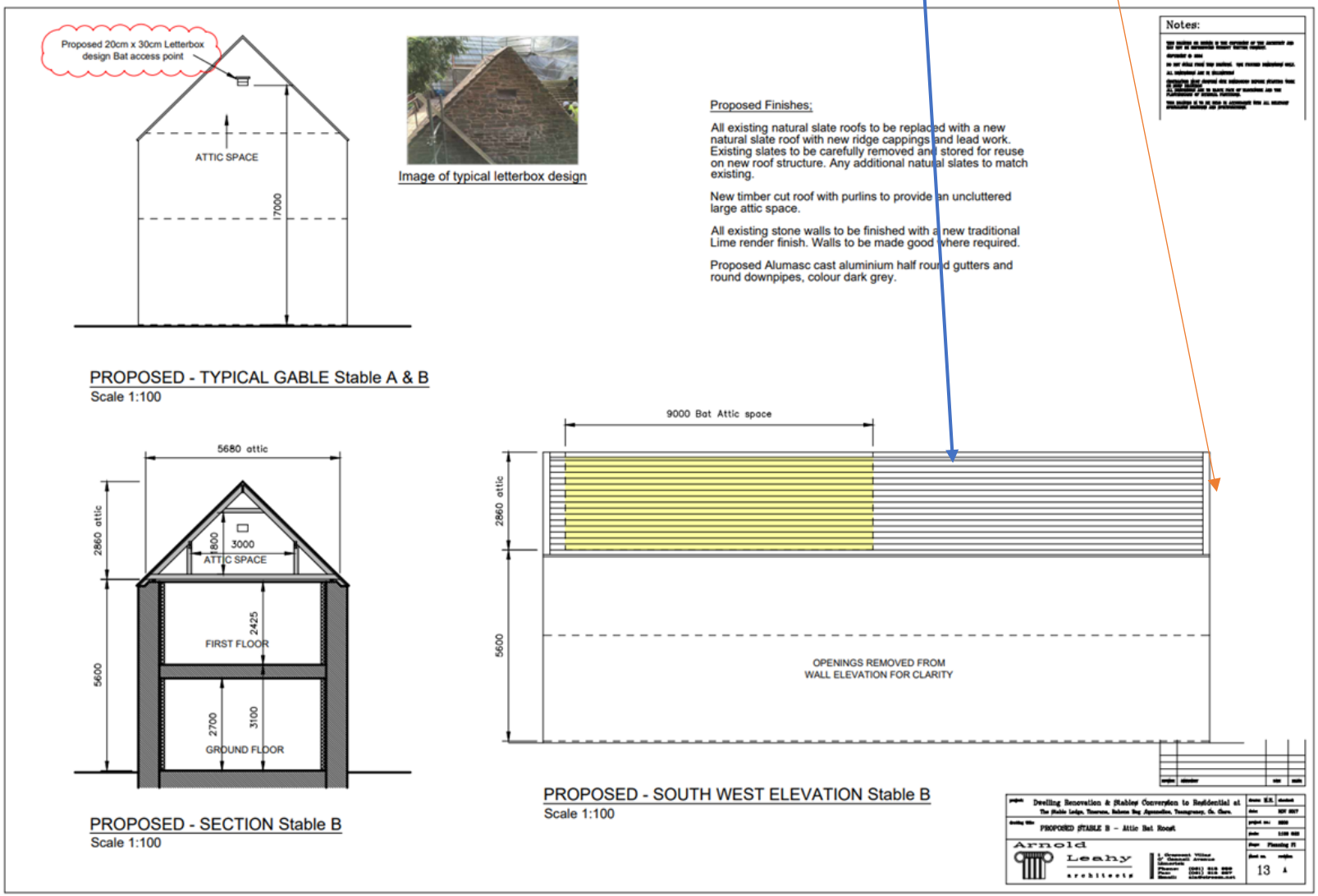
PROPOSED - SIDE ELEVATION Tower
Scale 1:100

Arnold Leahy architects

PROPOSED TOWER - Attic Bat Roost

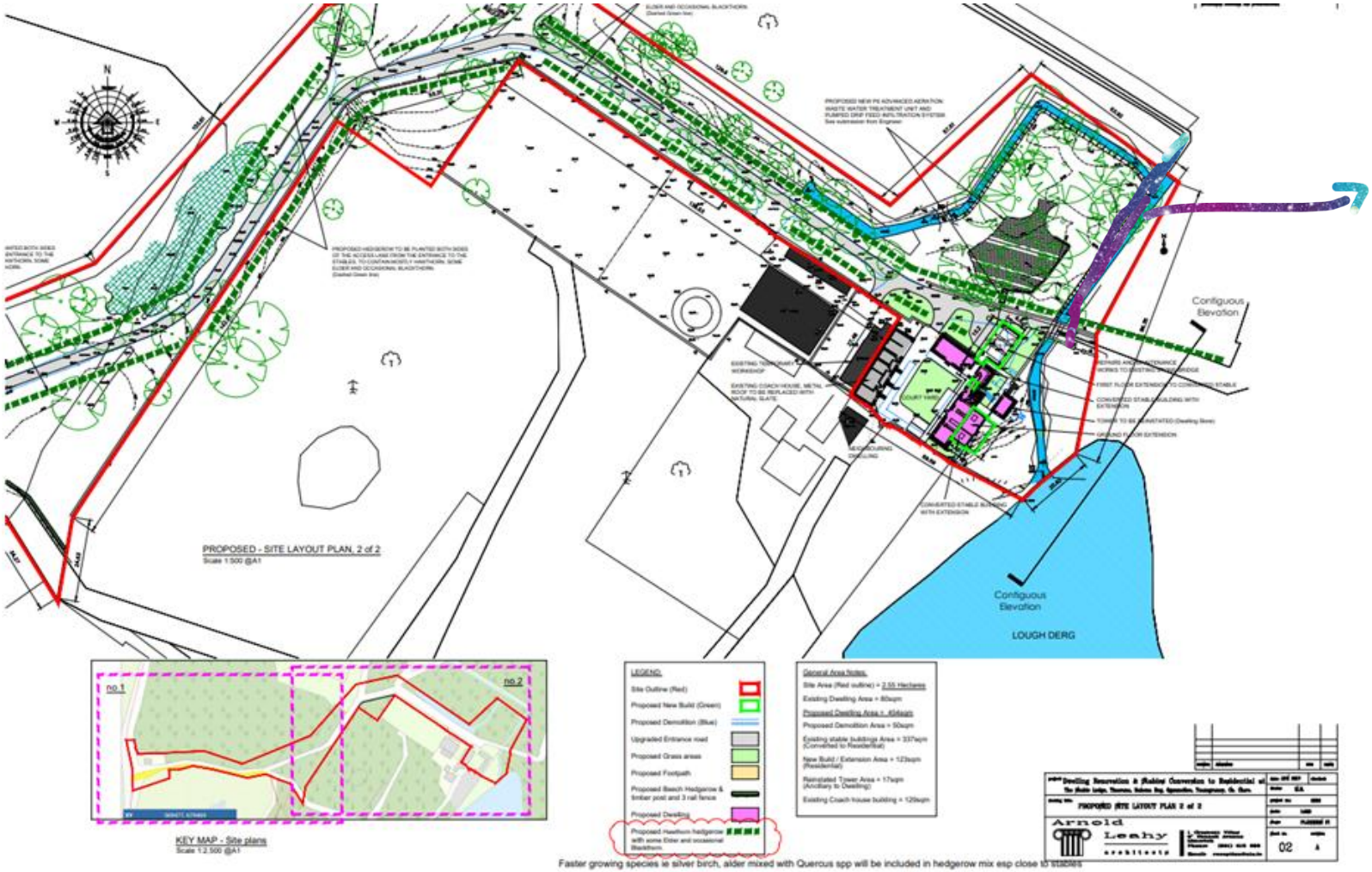
11

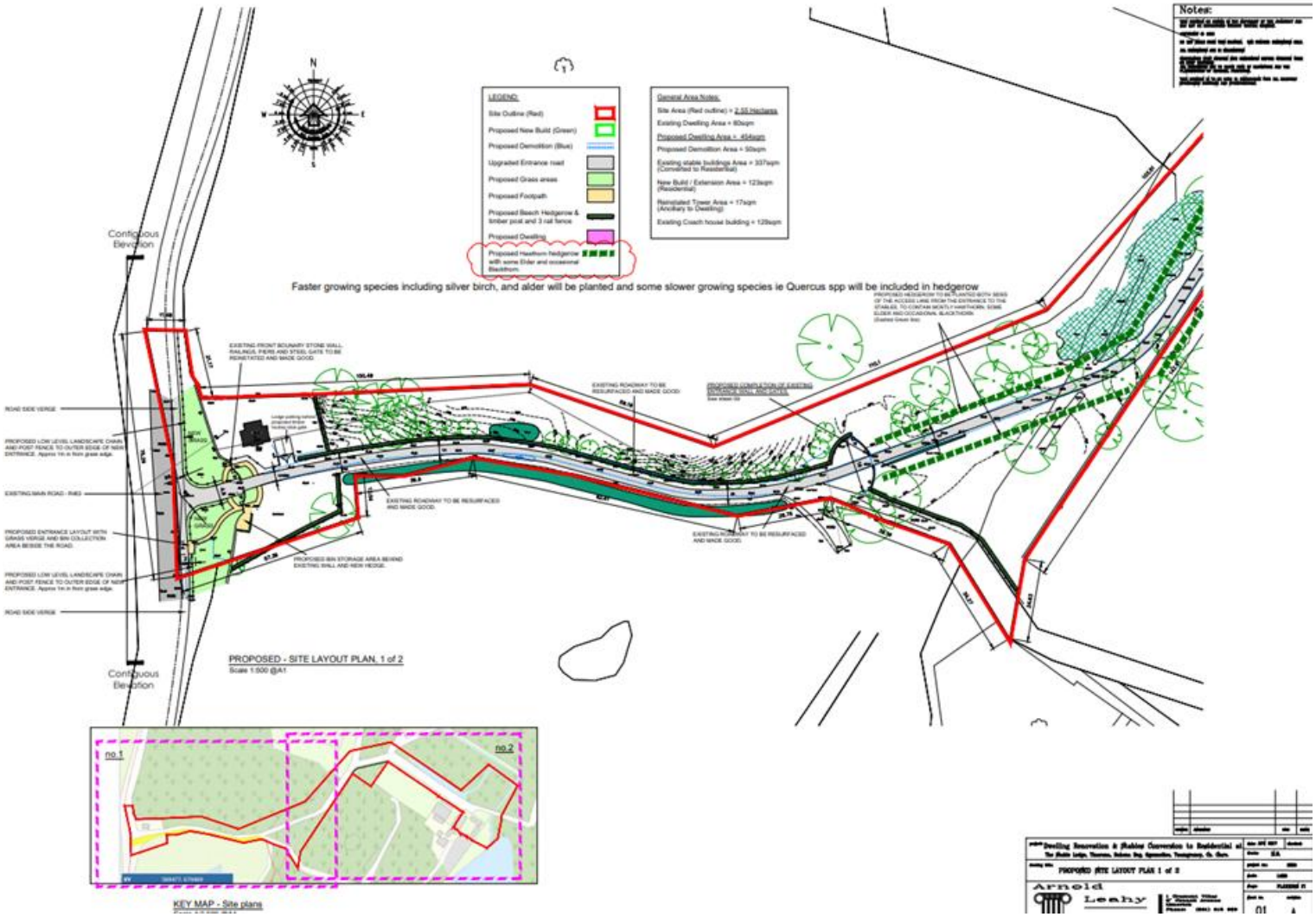
Following consultation with NPWs, this roost space has been swopped over – see blue arrow and similarly access for bats on other gable – see red arrow



Appendix B: Landscape plans

Additional planting of native species including alder to be managed for wildlife ie not closely cut or box hedge – to be provided along the stone wall facing Lough Derg shoreline




Notes:
LEGEND:
Site Outline (Red)
Proposed New Build (Green)
Proposed Demolition (Blue)
Upgraded Entrance road
Proposed Grass areas
Proposed Footpath
Proposed Beech Hedgerow & timber post and 3 rail fence
Proposed Dwelling
Proposed Hawthorn hedgerow with some Elder and occasional Blackthorn
General Area Notes:
Site Area (Red outline) = 2.55 Hectares
Existing Dwelling Area = 80sqm
Proposed Dwelling Area = 454sqm
Proposed Demolition Area = 50sqm
Existing stable buildings Area = 337sqm (Converted to Residential)
New Build / Extension Area = 123sqm (Residential)
Reinstated Tower Area = 17sqm (Ancillary to Dwelling)
Existing Coach house building = 129sqm
Faster growing species including silver birch, and alder will be planted and some slower growing species ie Quercus spp will be included in hedgerow
Contiguous Elevation
Contiguous Elevation
ROAD SIDE VERGE
EXISTING MAIN ROAD - R463
ROAD SIDE VERGE
EXISTING FRONT BOUNDRY STONE WALL RAILINGS, PIERS AND STEEL GATE TO BE REINSTATED AND MADE GOOD.
EXISTING ROADWAY TO BE RESURFACED AND MADE GOOD.
EXISTING ROADWAY TO BE RESURFACED AND MADE GOOD.
EXISTING ROADWAY TO BE RESURFACED AND MADE GOOD.
PROPOSED - SITE LAYOUT PLAN, 1 of 2
Scale 1:500 @A1
no.1
no.2
KEY MAP - Site plans
PROPOSED SITE LAYOUT PLAN 1 of 2
Arnold Leahy

Appendix C: Photographic Record

Photographic record -

	
view to The Tower from north	Stable B loft access used by Long Brown Eared Bats
	
Interior of loft space Stable B	Interior of loft space Stable A

	
Northern exterior of stable B	Looking across to shoreline of Lough Derg at Tinerana Bay

Appendix D: Calls/species/hour for 2025 static detector surveys

Stable A: Calls/species/hour 2025

Timestamp	Pipistrellus pygmaeus (Calls / 3600s)	Myotis spec. (Calls / 3600s)	Myotis daubentonii (Calls / 3600s)	Pipistrellus pipistrellus (Calls / 3600s)	Nyctalus leisleri (Calls / 3600s)	Rhinolophus hipposideros (Calls / 3600s)	Plecotus auritus (Calls / 3600s)	Plecotus spec. (Calls / 3600s)	Total calls	ø Temperature [°C]
30/05/2025 21:00	1	0	0	0	0	0	0	0	1	19
30/05/2025 22:00	40	4	4	48	0	0	0	0	96	18.9
30/05/2025 23:00	280	0	0	23	4	148	0	0	455	18.8
31/05/2025 00:00	181	8	0	38	0	0	12	0	239	18.6
31/05/2025 01:00	146	16	0	74	4	0	7	0	247	18.2
31/05/2025 02:00	655	0	0	29	0	0	30	0	714	18.6
31/05/2025 03:00	84	9	0	53	0	0	3	4	153	18
31/05/2025 04:00	278	8	0	209	0	0	284	0	779	17.9
31/05/2025 21:00	0	4	0	0	0	0	0	0	4	16
31/05/2025 22:00	249	4	26	88	0	0	17	0	384	16.4
31/05/2025 23:00	91	0	8	82	8	0	0	0	189	16.2
01/06/2025 00:00	33	0	0	8	0	0	5	0	46	16
01/06/2025 01:00	33	0	0	9	0	0	0	0	42	15.7
01/06/2025 02:00	0	4	0	6	0	0	9	0	19	15.5

Timestamp	Pipistrellus pygmaeus (Calls / 3600s)	Myotis spec. (Calls / 3600s)	Myotis daubentonii (Calls / 3600s)	Pipistrellus pipistrellus (Calls / 3600s)	Nyctalus leisleri (Calls / 3600s)	Rhinolophus hipposideros (Calls / 3600s)	Plecotus auritus (Calls / 3600s)	Plecotus spec. (Calls / 3600s)	Total calls	ø Temperature [°C]
01/06/2025 03:00	0	0	6	17	2	0	6	0	31	15.3
01/06/2025 04:00	27	0	0	58	0	0	0	0	85	15.3
01/06/2025 05:00	0	0	0	4	0	0	0	0	4	15
01/06/2025 22:00	21	4	0	9	0	0	0	0	34	16
01/06/2025 23:00	7	0	0	3	5	23	0	0	38	15.7
02/06/2025 00:00	1	0	8	0	0	69	14	0	92	15
02/06/2025 01:00	5	0	0	0	0	0	17	0	22	14
02/06/2025 03:00	2	23	0	0	0	0	24	0	49	14.1
02/06/2025 04:00	44	13	0	291	0	0	105	0	453	14.7
02/06/2025 05:00	0	0	0	0	0	0	10	0	10	14
02/06/2025 22:00	6	0	0	4	0	0	0	0	10	15
02/06/2025 23:00	0	0	9	0	0	0	8	0	17	16
03/06/2025 01:00	0	0	0	0	0	0	7	0	7	15
03/06/2025 02:00	0	0	0	4	0	34	0	0	38	15
03/06/2025 04:00	4	0	0	15	0	0	0	0	19	14
03/06/2025 21:00	0	32	34	8	0	0	0	0	74	13.6
03/06/2025 22:00	42	0	8	4	0	0	0	0	54	14
03/06/2025 23:00	4	0	0	18	4	0	0	0	26	14
04/06/2025 00:00	0	0	0	0	0	0	8	0	8	14
04/06/2025 02:00	19	0	0	54	0	0	17	0	90	13.2
04/06/2025 03:00	16	11	0	23	0	0	4	0	54	13
04/06/2025 04:00	9	6	0	200	0	0	45	0	260	13.2
04/06/2025 22:00	142	0	0	6	0	0	6	0	154	15.3
04/06/2025 23:00	31	0	0	19	0	0	4	0	54	15
05/06/2025 00:00	94	4	0	0	0	0	0	0	98	15.1

Timestamp	Pipistrellus pygmaeus (Calls / 3600s)	Myotis spec. (Calls / 3600s)	Myotis daubentonii (Calls / 3600s)	Pipistrellus pipistrellus (Calls / 3600s)	Nyctalus leisleri (Calls / 3600s)	Rhinolophus hipposideros (Calls / 3600s)	Plecotus auritus (Calls / 3600s)	Plecotus spec. (Calls / 3600s)	Total calls	ø Temperature [°C]
05/06/2025 01:00	12	0	0	3	0	0	10	0	25	15
05/06/2025 02:00	0	9	0	0	0	0	13	0	22	15
05/06/2025 03:00	0	9	0	16	0	0	21	0	46	14.4
05/06/2025 04:00	0	0	0	21	0	0	12	0	33	14.1

Stable B: Calls/species/hour 2025

Timestamp	Pipistrellus pygmaeus (Calls / 3600s)	Pipistrellus pipistrellus (Calls / 3600s)	Rhinolophus hipposideros (Calls / 3600s)	Plecotus auritus (Calls / 3600s)	Nyctalus leisleri (Calls / 3600s)	Myotis daubentonii (Calls / 3600s)	Myotis spec. (Calls / 3600s)	Total calls/hour
30/05/2025 22:00	27	71	151	0	0	0	0	249
30/05/2025 23:00	186	106	50	13	3	0	0	358
31/05/2025 00:00	68	67	0	0	0	10	0	145
31/05/2025 01:00	158	73	6	0	5	0	0	242
31/05/2025 02:00	268	41	0	0	3	0	0	312
31/05/2025 03:00	44	95	0	12	0	0	0	151
31/05/2025 04:00	576	837	0	0	9	6	0	1428
31/05/2025 22:00	396	150	0	0	0	4	0	550
31/05/2025 23:00	131	186	0	10	6	0	0	333
01/06/2025 00:00	27	0	0	0	0	0	0	27
01/06/2025 01:00	36	18	0	0	0	0	0	54
01/06/2025 03:00	32	22	0	0	0	0	0	54
01/06/2025 04:00	16	57	0	0	0	0	0	73
01/06/2025 22:00	133	13	0	0	0	0	0	146
01/06/2025 23:00	22	65	84	0	0	0	0	171
02/06/2025 00:00	11	12	25	0	0	0	0	48
02/06/2025 01:00	40	4	0	28	0	0	0	72
02/06/2025 02:00	7	0	0	19	0	0	0	26
02/06/2025 03:00	4	17	0	4	0	0	0	25
02/06/2025 04:00	221	637	0	0	0	5	0	863
02/06/2025 23:00	0	0	0	0	0	0	6	6
03/06/2025 01:00	9	4	0	0	0	0	0	13
03/06/2025 02:00	9	43	0	0	0	4	0	56
03/06/2025 03:00	4	0	0	0	0	4	0	8
03/06/2025 04:00	22	86	0	0	0	0	0	108
03/06/2025 22:00	47	20	0	0	5	0	0	72
03/06/2025 23:00	42	24	0	0	0	0	0	66

Timestamp	Pipistrellus pygmaeus (Calls / 3600s)	Pipistrellus pipistrellus (Calls / 3600s)	Rhinolophus hipposideros (Calls / 3600s)	Plecotus auritus (Calls / 3600s)	Nyctalus leisleri (Calls / 3600s)	Myotis daubentonii (Calls / 3600s)	Myotis spec. (Calls / 3600s)	Total calls/hour
04/06/2025 00:00	0	16	0	0	0	0	0	16
04/06/2025 01:00	5	0	0	0	0	0	0	5
04/06/2025 02:00	5	18	0	0	0	0	0	23
04/06/2025 03:00	18	4	0	0	0	0	0	22
04/06/2025 04:00	26	257	0	0	0	0	0	283
04/06/2025 22:00	106	83	0	0	6	0	0	195
04/06/2025 23:00	65	83	0	0	0	5	0	153
05/06/2025 00:00	27	28	0	0	0	0	0	55
05/06/2025 01:00	16	4	0	8	0	0	0	28
05/06/2025 03:00	10	34	0	0	0	0	0	44
05/06/2025 04:00	29	60	0	0	21	5	0	115