Bat Derogation Licence Application

Lissardagh Main House

November 2025

Prepared for:

Pat O'Leary and
Anne-Marie O'Brien

CIEEM
REGISTERED
PRACTICE 2025-2026

O'DONNELL ENVIRONMENTAL

Summary

Project: Lissardagh Main House Renovation, Lissardagh, County Cork.

Coordinates: W 40345 67111 (IG); 51.853375, -8.8665971.

Report by: Tom O'Donnell BSc (Hons) MSc CEnv MCIEEM.

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 licensed by NPWS for roost disturbance (Ref: DER/BAT 2023-16) and to capture bats (C25/2023).

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 (Ref: DER/BAT 2025-108), to capture bats (C03/2025), and to photograph bats (009/2025).

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1 Introduction

O'Donnell Environmental Ltd. have been commissioned by Wain Morehead Architects on behalf of Pat O'Leary and Ann-Marie O'Brien in November 2025 to prepare a Regulation 54 Derogation application in relation to Lissardagh House, Co. Cork, in preparation of the expiration of the current licence (DER/BAT 2025-221; see **Appendix C**) on 31st December 2025.

The 'Main House', to which the current Regulation 54 Derogation pertains, is in close proximity to Lissardagh Coach House which is the subject of a separate Regulation 54 Derogation (DER/BAT 2025-59). The Coach House is used for non-maternity roosting by a number of species. The methodology and measures outlined herein considers and responds to the measures and conditions relating to the Coach House derogation license application, especially in relation to timing of works whereby the two structures will not be worked on simultaneously. Works have now been largely completed for the Coach House and a returns form and report will be prepared for this separately.

The purpose of the proposed works on the Main House is to address the degradation of the roof and coverings (slate, leadwork, fascia& soffits, etc.) and external render in order to preserve the historic structure and aid ventilation.

The aims of the study were to assess and evaluate the likely importance of the existing structures to bats. The purpose of the current report is to inform a bat derogation license application which will be made to NPWS.

The Client proposes to renovate Lissardagh Main House. Elements of the proposed works which have potential to impact on bats include the following (see **Appendix A** for timeline of works and design information):

- Installation and decommissioning of scaffolding.
- Investigative works to roof and external wall render.
- Removal of existing render and installation of new external wall render.
- West porch and North WC reroofing.
- Roof repairs.
- Chimney works (re-render, coping, leadwork, pots etc.).

Ecofact were engaged by the Client in July 2023 for works pertaining to Lissardagh Main House and a Regulation 54 Derogation was issued which has which has since expired (DER/BAT 2024-74). No works were conducted under this licence. Understanding of the importance of the Main House was supplementally informed by Ecofact (2023) (see **Appendix B**).

O'Donnell Environmental were additionally engaged by the Client in January 2025 in order to re-apply for the expired Regulation 54 Derogation, and was successfully granted under DER/BAT 2025-221 (expires 31st December 2025). Works are currently ongoing under this licence. A large proportion of the proposed works outlined above have been completed, with only roof repairs, chimney works and render finish coat remaining. There exists the potential for the remaining works to extend into the 2026 calendar year, thus the requirement for an extension of the current DER/BAT 2025-221. As part of the required monitoring and supervision stipulated by this licence, additional detailed information was gathered by O'Donnell Environmental and is presented below.

Of the remaining works, roof repairs will be largely external and limited to timber splicing, localised timber treatment, minor slate repair, and lead flashing repair. Attic ventilation will be supplemented with new inline slate vents at ridge level. It is currently proposed that the existing cellulose attic floor insulation will remain as is currently in place and no variation of insulation is required. Chimney works will additionally be external to the attic space.

With cognisance to baseline data gathered during previous survey work (see **Section 3.1.1**), the emergence survey completed within the 2025 maternity season (see **Section 3.4**) confirms the works conducted to date under the previous Regulation 54 Derogation DER/BAT 2025-221 has had no negative effect on the bat roosting context within Lissardagh House.

2 Methodology

The current methodology aimed to validate the results of surveys undertaken as part of the previous Regulation 54 Derogations (see **Section 1** above). Surveys consisted of a mixture of daytime building assessments, passive monitoring, and dusk emergence surveys following industry best practice and standards (Collins, 2023; NRA, 2005; 2006). Regular monitoring and supervision of works permitted under DER/BAT 2025-221 revealed additional information on roosting context.

All surveys were carried out in accordance with industry standard best practices, including the following:

- Bat Conservation Trust guidelines Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th edition (note that the guidelines were recently updated to 4th 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).

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 (R35) 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 [1] while SPAs designated under the EU Birds Directive [2]. 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.

[1] Council Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna, as amended by Council Directive 97/62/EC.
[2] 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

Daytime assessments consisted of exterior and interior assessments on 3rd April 2023 (to inform a quote which was not successful) and again on 10th July 2024 and 16th July 2024. The surveys aimed to identify any evidence of the presence of roosting bats, and to assess the suitability of the structures for roosting bats. Daytime visual surveys help to determine the appropriate survey effort required during nighttime emergence or re-entry surveys.

Following installation of scaffolding, further detailed assessment of the exterior of the roof and fascia-soffit were conducted at height as part of monitoring and supervision of works stipulated by DER/BAT 2025-221 between April and November 2025. This revealed additional detailed information of roosting context.

2.3 PASSIVE MONITORING

Passive bat monitoring was carried out within the attic using a WA Song Meter Mini full-spectrum detector between 10th and 16th July 2024 (6 survey nights). Bioacoustics analysis of bat sonograms was carried out according to the parameters set out in Russ (2012; 2021) and Middleton et al. (2014). Kaleidoscope Pro software was used to aid analysis and all calls were manually verified.

2.4 EMERGENCE SURVEY

A targeted emergence survey was conducted on 15th July 2025 as part of monitoring of works permitted under DER/BAT 2025-221. For emergence surveys, surveyors were positioned to maximise views of the structures, in combination with night vision aids (NVAs) following best practice guidelines (Collins, 2023). Particular attention was applied to any identified access/egress points noted during previous daytime visual roost assessments. Guide IR Pro 19 thermal imaging cameras were positioned to optimise views of structures, following Collins (2023). WA Song Meter Mini full-spectrum detectors were placed within the viewsheds of night vision aids to correlate any potential emergence with echolocation data. Surveyors utilised handheld Echo Touch Meter Pro 2 and Anabat Scout full spectrum recorders. The survey was carried out during suitable weather conditions. See **Plates 2.1 - 2.4** for views of thermal camera perspectives.

Plate 2.1 Thermal perspective overlooking the west aspect of Lissardagh Main House. Emergence points are highlighted with white arrows.

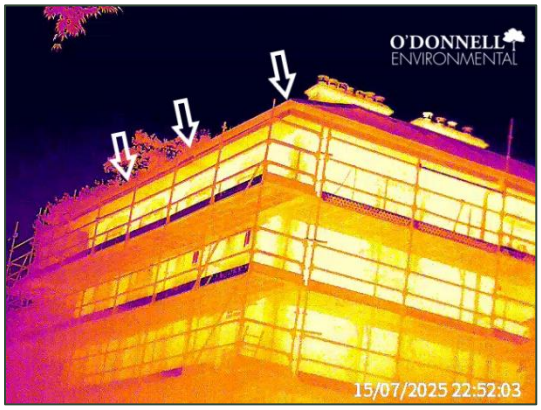

Plate 2.2 Thermal perspective overlooking the southeast aspect of Lissardagh Main House. Emergence points are highlighted with white arrows.

Plate 2.3 Thermal perspective overlooking the east aspect of Lissardagh Main House.

Plate 2.4 Thermal perspective overlooking the north aspect of Lissardagh Main House.

2.5 SURVEY LIMITATIONS

Full site and building access was supplied by the Client. Lissardagh House was surveyed according to industry best-practice and standards (Marnell et al. (2022), Collins (2023) and NRA, (2005;2006)). Historic data was utilised to further inform the bat context of Lissardagh Main House. It is considered there are no significant limitations associated with the current report.

Figure 1
Site Layout

Project:
Lissardagh Main House Renovation.

Prepared for:
Pat O'Leary and Ann-Marie O'Brien

Colm Breslin BSc (Hons)
D: 12/11/2025

Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

Legend

- Lissardagh Coach House
- Lissardagh House
- Lissardagh Outbuildings

3 Results

Lissardagh Main House is hosts roosting by multiple bat species, including maternity roosting by Whiskered Bat. An abundance of access/egress points have been recorded throughout the roof structure. The surrounding landscape is characterised by intensive farming and high suitability quality landscape features (hedgerows, treelines, woodland, waterbodies).

3.1 DESK STUDY

Results of the desk study are described separately below.

3.1.1 Previous Surveys

Surveys were previously carried out by EcoFact (2023) (see **Appendix B**) to inform a previous, now expired, Regulation 54 Derogation. Roosting by *Myotis* sp. (20+ individuals, thought to be Whiskered Bat), Common Pipistrelle and Soprano Pipistrelle was identified within the attic of Lissardagh House (EcoFact, 2023). Bats were identified exiting primarily from the southwestern and northern portions of the roof. Small numbers of bats were recorded exiting from the centre of the southern and western portions of the roof respectively. A count of 27 bats was observed exiting the attic of Lissardagh House on this date. It should be noted that no night vision aids were utilised for that survey, nor was an internal inspection was carried out for that survey.

3.1.2 Sites of International and National Importance

Special Areas of Conservation (SAC) and Special Protection Areas for birds (SPA) are those sites that are deemed to be of European (i.e. international) importance. They form part of a network of sites to be designated across Europe in order to protect biodiversity within the community, known as Natura 2000 sites. At a national level, the basic unit of conservation is the Natural Heritage Area or proposed National Heritage Area (NHA/pNHA). NHAs are designated to protect habitats, flora, fauna and geological sites of national importance.

No international designated sites (SAC) containing Lesser Horseshoe Bat as a conservation interest are located within 15km of the proposed development. Additionally, no nationally designated sites (NHA/pNHA) listed for bat species were present. As such, no designated sites of international or national importance are considered further.

3.1.3 Bat Data Search

National Biodiversity Data Centre holds previous records of bat presence from within the 10km square (W46) in which the proposed site is located. These records are for the following six species:

- 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*).

All bat species in an Irish context are of 'Least Concern' within Marnell et al. (2019). The most recent Article 17 report (NPWS, 2019) states the conservation status of all bat species are 'favourable', with the exception of Lesser Horseshoe Bat which is 'inadequate and declining' due to declines in Limerick and North Kerry populations specifically.

The overall bat suitability index value (32) 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**. Lesser Horseshoe Bat is assigned a score of '12' due to the presence of suitable landscape features and being located within their known range. Two roost records of Lesser Horseshoe Bat exist within 5km of Lissardagh Main House to the west, of which one revealed a maximum count of 45 in 2015 from surveys by NPWS. Lesser Horseshoe Bat would be expected to occur within the landscape surrounding Lissardagh Main House. However, no suitable access/egress exists for this species and thus roosting is not considered possible by Lesser Horseshoe Bat in this instance.

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
All bats		*32*
Soprano pipistrelle	*Pipistrellus pygmaeus*	42
Brown long-eared bat	*Plecotus auritus*	49
Common pipistrelle	*Pipistrellus pipistrellus*	40
Lesser horseshoe bat	*Rhinolophus hipposideros*	12
Leisler's bat	*Nyctalus leisleri*	39
Whiskered bat	*Myotis mystacinus*	31
Daubenton's bat	*Myotis daubentonii*	30
Nathusius pipistrelle	*Pipistrellus nathusii*	4
Natterer's bat	*Myotis nattererii*	41

Source: https://maps.biodiversityireland.ie/Map. Accessed 12/11//2025.

3.2 DAYTIME ASSESSMENT

From a relatively brief internal inspection of the attic by O'Donnell Environmental, bats appear to roost in a number of spaces throughout the attic and are largely contained in the void space between the bitumen felt and slate roof. Roosting appeared concentrated at along the ridges and hips of the timber roof structure based on the significant accumulation of droppings beneath these locations.

While roosting by individuals of a variety of bat species were identified diffusely throughout the attic space, groups Soprano and Common Pipistrelle were identified above the southeastern hip-roof section with significant scratching heard in this location. Additionally, Whiskered Bat were identified within the western attic portion with at least 10 individuals on the wing observed within the roost. A dead juvenile Whiskered Bat was identified within the accumulation of droppings underneath this location. Common Pipistrelle was additionally identified centrally within the southern portion of the attic within the brickwork. No other bat species were identified during the course of interior inspections, with the majority of bat signs (scratching) noted within the inaccessible void between the slate and roofing membrane.

It is important to note that the attic space of the main house contains a wide variety of potential roosting spaces (voids surrounding bitumen felt, wooden joinery, exposed interior brickwork

etc.) and as such, the entirety of the attic space of Lissardagh Main House should be considered as a roosting space.

Plate 3.1 Whiskered Bat roosting along the ridge beam within the western attic section of Lissardagh House.

Plate 3.2 Soprano Pipistrelle within the exposed interior brickwork of Lissardagh House attic.

Plate 3.3 Common Pipistrelle roosting in the ridge beam joinery within the attic of Lissardagh House.

Plate 3.4 Significant accumulation of bat droppings underneath the hip-roof apex within the western attic portion, with dead juvenile whiskered bat present also.

External inspection of Lissardagh Main House at height revealed a number of suitable access/egress locations throughout the roof structure. Droppings were recorded in the gap between the gutters and slates on the southwest and southeast corners (see **Plates 3.5-3.6**), presenting the likely main access/egress point. Damaged lead ridges throughout the entire exterior roof structure provides roosting voids for bat species (see **Plate 3.7**), in addition to access/egress opportunities (see **Plate 3.8**). Minor gaps were additionally present along the plastic fascia-soffit which provides additional access/egress opportunities.

Plate 3.5 View of southwest corner of roof. Note gap between gutters and slate.

Plate 3.6 Detailed view of gap between gutters and slate on southwest corner, droppings evident.

Plate 3.7 Example view of damaged lead. Presents voids underneath and above slates, with droppings and individual bats recorded underneath.

Plate 3.8 Example of buckled lead ridges, presenting suitable access/egress throughout.

Overall, Lissardagh Main House is a confirmed multi-species roost of maternity status and is considered of 'high' suitability for roosting bats following Collins (2023). Lissardagh Main House is not accessible to Lesser Horseshoe Bat.

3.3 PASSIVE MONITORING

Passive ultrasonic monitoring was carried out by O'Donnell Environmental within the attic of Lissardagh Main House over 6 nights in the summer of 2024. Full results are presented below (see **Table 3.2**). As identified in Ecofact (2023), roosting by *Myotis* spp. (i.e. Daubenton's Bat, Natterer's Bat and / or Whiskered Bat), Common Pipistrelle and Soprano Pipistrelle were identified within the attic of Lissardagh Main House.

All of the above species were recorded within the attic of Lissardagh Main House during the passive bat monitoring period. In addition, Brown Long-eared Bat was recorded within the attic space. This species was not identified during the course of previous surveys. The high number of registrations attributed to Brown Long-eared Bat is likely conflated by their known use of open voids for pre-emergence flight relative to the other void-dwelling species.

Small numbers of registrations attributed to Leisler's Bat were recorded. However, due to the intensity and loudness of their calls, and the number of minor gaps present within the overall roof structure, it was considered that these registrations likely occurred from bats outside of the building. The Annex II species Lesser Horseshoe Bat was not recorded.

Table 3.1 – Lissardagh Main House Attic Passive Bat Monitoring Results 2024 (number of registrations*).

Survey Night	Brown Long-eared Bat	Common Pipistrelle	Daubentons Bat	Leislers Bat	Natterers Bat	Soprano Pipistrelle	Whiskered Bat	Total
10 July	22	27	5	2	4	1	153	214
11 July	13	6	1	1	0	0	51	72
12 July	43	20	4	1	2	2	75	147
13 July	68	22	14	0	1	0	74	179
14 July	23	20	5	0	1	0	62	111
15 July	34	57	21	0	5	1	103	221
16 July	0	7	2	0	1	0	7	17
Total	**203**	**159**	**52**	**4**	**14**	**4**	**525**	**961**

*Note: *registration is defined as the presence of bat species in a recording of up to 15 seconds; ^BLE = Brown Long-eared Bat.*

3.4 EMERGENCE SURVEY

A targeted emergence survey was conducted on Lissardagh Main House within the 2025 maternity season. The purpose of this survey was to evaluate the status of the known roost during works conducted under DER/BAT 2025-221. Particular attention was given to access/egress locations identified in **Section 3.2** above.

A total of 36 individuals were recorded emerging from Lissardagh Main House. Bats were identified egressing from numerous locations throughout the roof structure (see **Plates 2.1-2.2**). The majority of individuals (approximately 22) were recorded to exit through the southwest corner, between the gutter and slates and also gaps in the fascia-soffit. Approximately 20 of these individuals were attributed to Whiskered Bat, with the remaining two individuals only identifiable to *Myotis* sp. Three individuals were recorded exiting through the western aspect, from both the lead ridge and between the slate and gutter in a different location. These individuals did not register on detectors and are assumed to Brown Long-eared Bat. The remaining 11 individuals were recorded exiting from the southern aspect and the southeast corner between the gutter and slates also. Approximately 4 individuals were attributed to Soprano Pipistrelle and Common Pipistrelle respectively, with the remaining 3 individuals only identifiable to *Myotis* sp.

Individuals were noted to forage locally surrounding the house and mature trees early in the night, gradually dissipating as the survey progressed.

3.5 SUMMARY OF RESULTS

Lissardagh Main House is host to a multi-species bat roost of six species, of which Whiskered Bat at a minimum is confirmed to be maternity roosting. With cognisance to baseline data gathered during previous survey work (see **Section 3.1.1**), the emergence survey completed within the 2025 maternity season (see **Section 3.4**) confirms the works conducted to date under the previous Regulation 54 Derogation (DER/BAT 2025-221) has had no negative effect on the bat roosting context within Lissardagh House.

4 Potential Impacts and Mitigation

Potential impacts and mitigation measures are discussed separately below.

4.1 POTENTIAL IMPACTS

Lissardagh Main House hosts roosting by a variety of bat species, including maternity roosting by at least one species (Whiskered Bat). Six of the nine bat resident Irish bat species have been recorded within the attic of Lissardagh Main House.

If the proposed works 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. In the medium and long terms (in the absence of intervention) the degradation of the roof would occur through insufficient ventilation and water ingress.

The proposed works in the attic of Lissardagh Main House consist of maintenance only, and following works bat roosting will continue as currently occurs. However, in the absence of avoidance and mitigation measures, negative effects on roosting bats would occur on a temporary basis.

4.2 MITIGATION

A mitigate-by-design approach was adopted in the design of the proposed development and O'Donnell Environmental Ecologists collaborated with WMA Architects Ltd. to incorporate avoidance and mitigation measures for bats in the emerging design. As discussed in **Section 1** above, the majority of the works permitted under the previous Regulation 54 Derogation (DER/BAT 2025-221) have been completed, with roof repairs, chimney works and render finish coat remaining. Proposed mitigation pertains to these remaining aspects only.

Provision has been made for all bat species recorded within the attic of Lissardagh Main House and the schedule of works coordinates with the proposed works at Lissardagh Couch House as required by DER/BAT 2025-59 (see **Appendix A** for the sequencing of works). Bats and their roosts are protected by legalisation, and the proposed works may only proceed following the grant of a derogation license issued under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations (2011). Notwithstanding any conditions of that license, should it be granted, the following measures will be implemented to minimise risks to bats:

4.2.1 Timing of Works

Reason and Wray (2023) outline the optimal timing of works of known bat roosting structures. Whiskered Bat are unlikely to overwinter in the attic. Due to the occupied nature of the house and the warm attic, no winter restrictions (December-March inclusive) are considered warranted in this instance.

A seasonal restriction on remaining particular roof works with potential to negatively affect the maternity colony is considered warranted. These works consist of localised slate repair, lead repair, timber splicing, timber treatment and chimney works. These works will be completed before 1st May 2026, outside of the maternity season (May-September inclusive) to avoid disturbance of the maternity colony.

No night-time works are proposed, and no construction phase or security lighting will be allowed. A bat-licensed ecologist will supervise the above works as detailed below.

4.2.2 Supervision of Works

Prior to the commencement of all demolition works, a bat-licensed ecologist will be onsite to carry out repeat daytime inspections and monitoring where appropriate. A bat licensed Ecologist will be engaged to provide a toolbox talk where considered necessary during the works and to supervise key aspects of the remaining roof works. Demolition works that interact with the attic including investigative works will take place with hand tools to minimise the potential impact to any bats roosting within. External roof investigative works will not take place across the entire roof structure such that bats will be able to move to undisturbed portions.

4.2.3 Lighting

In order to avoid potential impacts of lighting on roosting/foraging bats, construction works will only take place during daylight hours, and the site will not be lit during the hours of darkness excluding any existing security lighting which is already in place.

4.2.4 Provision of Access Post-works

The entirety of the attic of Lissardagh Main House is currently accessible to bats. The existing roof structure provides an abundance potential access/egress location through loose lead flashing and gaps in the fascia soffit. It is currently proposed to leave the entirety of the attic as it currently exists for bat species following the completion of works.

In order to facilitate access post-works, it is proposed that the primary access/egress points identified during surveys of the roof are maintained at a minimum (southwest and southeast corners). Recent guidance has shown that the likelihood of bats returning to their roosting location is reduced significantly if entrances are not sited proximal to the original location, and distances of greater than 50cm should be avoided (Jahelkova et al., 2024). Additional access/egress points will be created in the leadwork and fascia-soffit in agreement with the supervising bat-licensed ecologist onsite to maintain a variety of access/egress points for bat species. No artificial lighting will conflict with the location of bat access.

4.2.5 Materials

The use of bat-safe construction materials may only be used within the attic if required. Underlay within the attic may only be composed of traditional bitumen felt (1F) as it currently found within the attic.

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[3]' 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. The bat-licensed Ecologist will carry out a final inspection to confirm that the attic roost has been maintained as it currently exists.

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

5 Derogation Licence Application

Bespoke and appropriate mitigation measures have been outlined in **Section 4.2** above following robust data gathered over multiple seasons and years. No additional measures are considered feasible in terms of further reducing the impact of the scheme 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.

5.1 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*"

Pat O'Leary and Ann-Marie O'Brien intend to carry out necessary maintenance works on Lissardagh House, a registered historic structure (NHBS Ref: 20908318). The proposed works have been previously permitted under DER/BAT 2025-221. The attic, upper floors and walls of Lissardagh House are currently threatened by water ingress and the trapping of moisture. The purpose of the proposed works is to address the degradation of the roof and coverings (slate, leadwork, fascia & soffits, etc) and external render in order to preserve the historic structure and aid ventilation.

In the absence of maintenance, the existing timber and general roof degradation would result in the deterioration of the attic space as a viable roosting space for a variety of bat species, including a locally important Whiskered Bat maternity colony in the medium term (7-15 years following EPA, 2022). Continued lack of maintenance would result in the complete loss of the attic space as a roosting space for bat species in the medium-long term.

5.2 TEST 2 – ABSENCE OF ALTERNATIVE SOLUTIONS

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

5.2.1 Alternative 1 – Do Nothing

Leaving Lissardagh House was considered suitable for the short term. At the time of surveys in 2023 and 2024, degradation to the roof and coverings (slate, leadwork, fascia, soffit etc.) were noted as a result of minor gaps throughout. The attic space was also noted to accumulate moisture which is predicted to adversely affect the roofing structure in the future. Under a 'do-nothing scenario' it was considered that Lissardagh House would be become unsuitable for bat species and eventually lost as a roosting space in the medium (7-15 years) or long term (>15 years) (EPA, 2022).

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

5.2.2 Alternative 2 – Exclude Bats Entirely From Lissardagh House

Exclusion of bats entirely from the attic space of Lissardagh House would result in the complete loss of maternity roosting of species such as Whiskered Bat, considered important locally. Under this scenario, a net loss in high-quality roosting spaces will occur the local bat population.

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

5.2.3 Alternative 3 – Compartmentalise the Attic Space for bat species

The entirety of the attic space of Lissardagh House is currently accessible to bats. The existing roof structure provides an abundance of roosting and access/egress opportunities for a large variety of bat species, with discrete species-specific roosting spaces noted throughout. Under a previously granted derogation (DER/BAT 2024-74) which has since expired, bat compartments were suggested in order to confine bats to specific sections of the attic. This is no longer considered a viable mitigation considering the number of species involved and complexity of the existing roof structure.

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

5.2.4 Alternative 4 – Repair Lissardagh House and Leave the Attic in it's Entirety for Bats

The mitigation for the proposed works involve leaving the attic in it's entirety for bat species as it currently exists. The proposed works consist of maintenance only and will be largely external. Through application of mitigation measures outlined in the original supporting document for this derogation application (namely seasonal avoidance, supervision of works and provision of permanent bat access/egress), no loss in roosting space will occur as a result of the proposed works.

Both during and following the completion of works, the roosting space for bats within Lissardagh House will be retained as it currently exists, providing a variety of roosting spaces for a high diversity of bat species.

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

5.3 TEST 3 – IMPACT OF A DEROGATION ON CONSERVATION STATUS

No loss of roosts will occur as a result of the proposed works, which are intended to consist of localised roof repairs and re-rendering only. The existing roosting space, and primary access/egress points will be maintained throughout and following the works.

Temporary disturbance of a confirmed maternity roost cannot be avoided as the necessary repairs are located proximal to identified roosting locations. This disturbance has been appropriately mitigated through seasonal avoidance primarily, in addition to supervision of works and retention of primary access/egress.

All of the roosting bat species identified within Lissardagh House are considered of 'Least Concern' (Marnell et al., 2019). The most recent Article 17 report (NPWS, 2019) states the conservation status of these species as 'favourable'. The mitigation stipulated within **Section 4.2** above are considered sufficient to effectively mitigate any potential temporary disturbance effects.

Lissardagh House is not accessible to Lesser Horseshoe Bat. Lesser Horseshoe Bat was not recorded within the structure, or during the course of passive and active surveys. No designated

sites listed for Lesser Horseshoe Bat are located within 10km of Lissardagh House. As a result, there is no potential for ex-situ effects.

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

5.4 MONITORING

Repeat emergence surveys will be carried out 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.

6 References

Aughney, T., Kelleher, C. & Mullen, D. (2008) Bat Survey Guidelines: Traditional Farm Buildings Scheme. The Heritage Council, Áras na hOidhreachta, Church Lane, Kilkenny.

Collins J. (Ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

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Marnell, F., Kelleher, C., Mullen, E. (2022). Bat mitigation guidelines for Ireland. National Parks and Wildlife Service. Department of Housing, Local Government and Heritage. Irish Wildlife Manuals, No.134, 2022.

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Russ, J., 2012. *British Bat Calls: a guide to species identification*. Pelagic publishing.

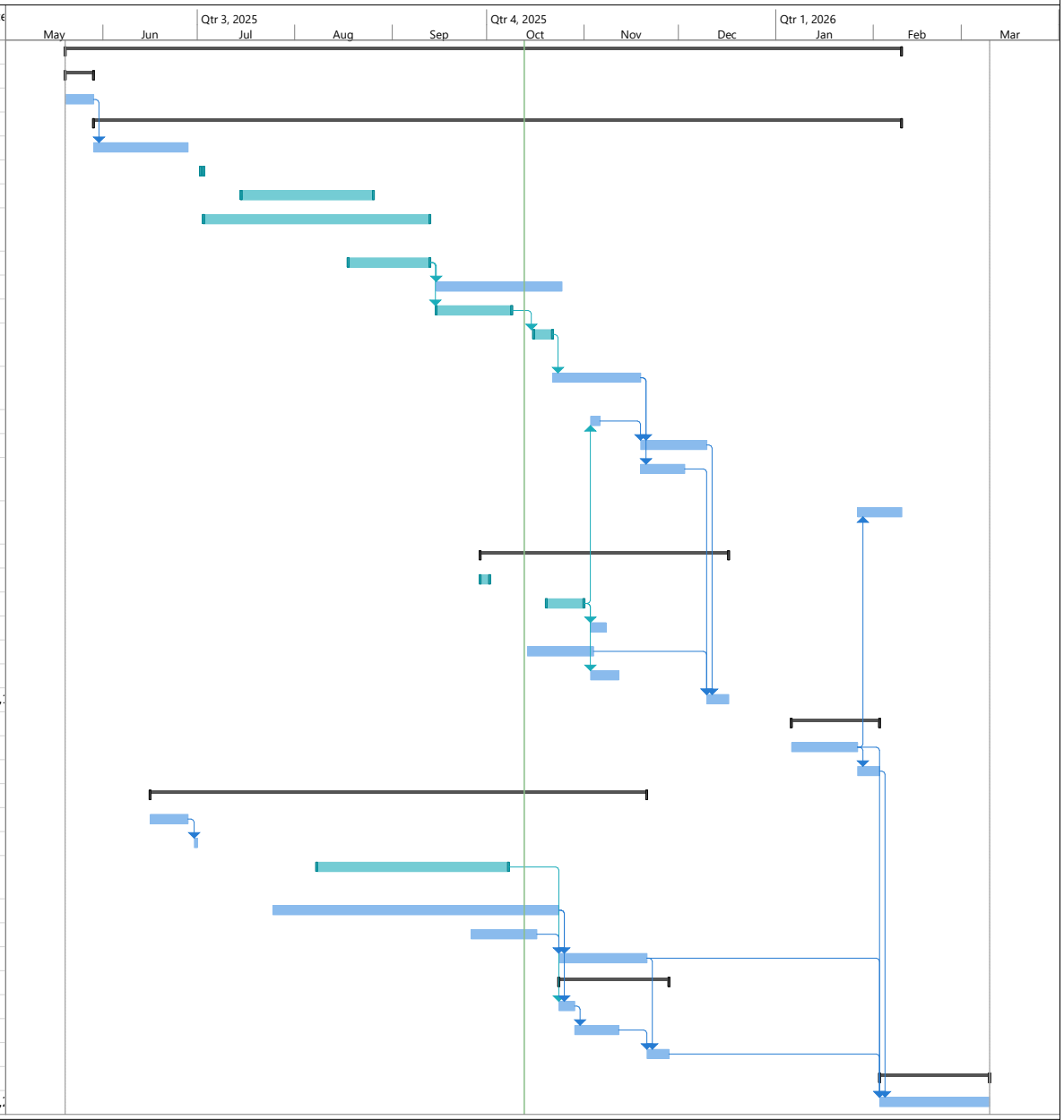
Russ, J., 2021. *Bat Calls of Britain and Europe: a guide to species identification*. Pelagic publishing.

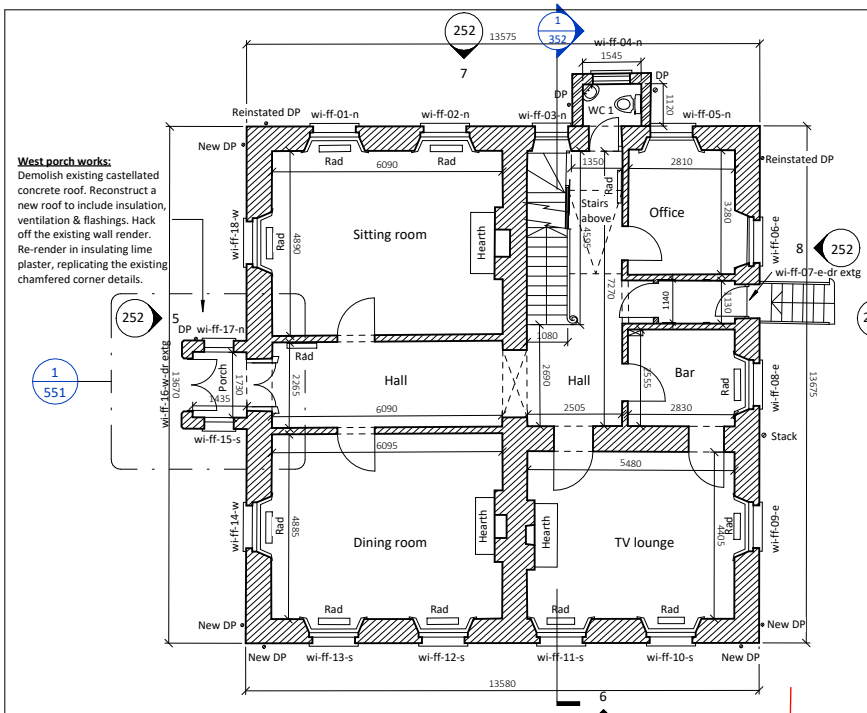
Appendix A - Design Information and Sequencing of Works

KUMRY CONSTRUCTION LTD.

Client: Pat O'Leary
Project: Lissardagh House
Date: 10/10/2025
Program Rev : 02 (option 1)

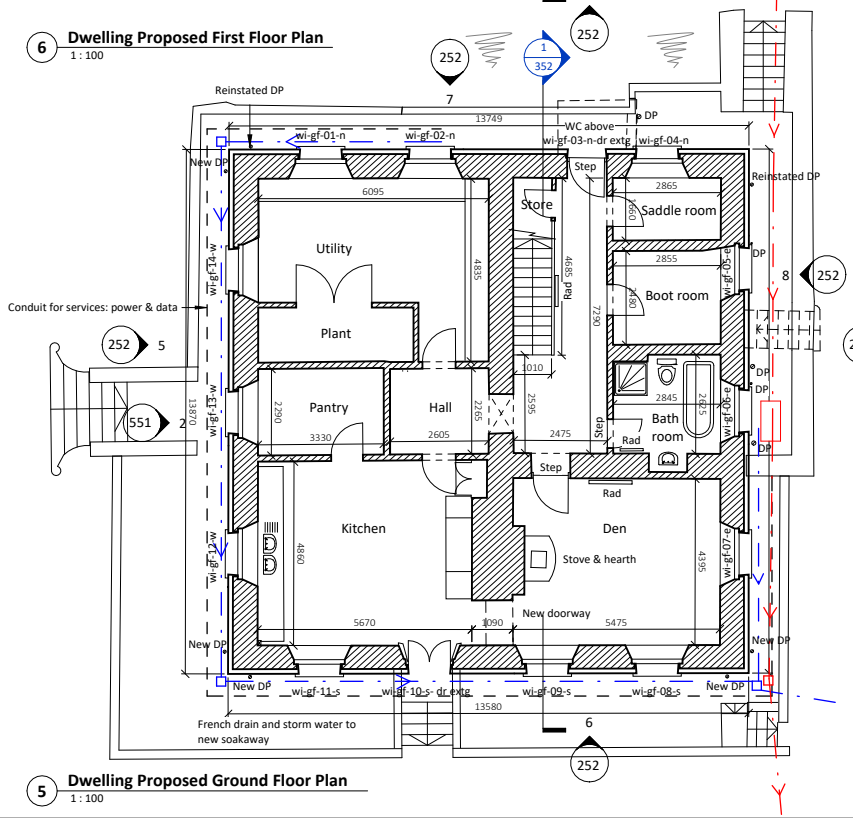
ID	Task Mode	Task Name	Duration	Start	Finish	Predece
1		**Main House**	**180 days**	**Tue 20/05/25**	**Mon 09/02/26**	
2		**Site Set Up**	**7 days**	**Tue 20/05/25**	**Wed 28/05/25**	
3		Scaffolding	7 days	Tue 20/05/25	Wed 28/05/25	
4		**Extneral Elevation works**	**173 days**	**Thu 29/05/25**	**Mon 09/02/26**	
5		Hack Plaster Main House	22 days	Thu 29/05/25	Fri 27/06/25	3
6		Removal Of Asbestos Back Annex	1 day	Wed 02/07/25	Wed 02/07/25	
7		Ambrose window Repairs	30 days	Tue 15/07/25	Mon 25/08/25	
8		Brick Work Repairs (Due to extra scope Window repairs Main House)	52 days	Thu 03/07/25	Fri 12/09/25	
9		Insulated Render Excluding Top Coat	20 days	Mon 18/08/25	Fri 12/09/25	
10		Dry Time	30 days	Mon 15/09/25	Fri 24/10/25	9
11		Moulding Works	18 days	Mon 15/09/25	Wed 08/10/25	9
12		Lead works to Moulding(Phase one Counter Flashing)	4 days	Thu 16/10/25	Tue 21/10/25	11
13		Patch band above string course. Includs Drying Time 15 days	20 days	Wed 22/10/25	Tue 18/11/25	12
14		Inatall top cornice	3 days	Mon 03/11/25	Wed 05/11/25	20
15		Final Coat Lime Render Top Section	15 days	Wed 19/11/25	Tue 09/12/25	13,14
16		Second Phase of Lead Works to String Course	10 days	Wed 19/11/25	Tue 02/12/25	13
17		Final Coat of External Render After Drainage Works	10 days	Tue 27/01/26	Mon 09/02/26	26
18		**Roof Works Main House**	**57 days**	**Mon 29/09/25**	**Tue 16/12/25**	
19		Adjust Scaffolding	3 days	Mon 29/09/25	Wed 01/10/25	
20		Faica & Soffit Works	10 days	Mon 20/10/25	Fri 31/10/25	
21		Roof Repairs	5 days	Mon 03/11/25	Fri 07/11/25	20
22		Chiminey Works	15 days	Tue 14/10/25	Mon 03/11/25	
23		Lead works to Ridges	7 days	Mon 03/11/25	Tue 11/11/25	20
24		Take Down Scaffolding	5 days	Wed 10/12/25	Tue 16/12/25	22,15,
25		**Ground Works**	**20 days**	**Tue 06/01/26**	**Mon 02/02/26**	
26		Works to Drainage Arround Main House	15 days	Tue 06/01/26	Mon 26/01/26	
27		Storm Water Soak Away TBC	5 days	Tue 27/01/26	Mon 02/02/26	26
28		**Coach House**	**114 days**	**Mon 16/06/25**	**Thu 20/11/25**	
29		Scaffolding	10 days	Mon 16/06/25	Fri 27/06/25	
30		Site Inspection	1 day	Mon 30/06/25	Mon 30/06/25	29
31		First Floor Works Main Section of Coach House	43 days	Fri 08/08/25	Tue 07/10/25	
32		Roof Works Coach House Completed	65 days	Fri 25/07/25	Thu 23/10/25	
33		Masonry Repairs (Additional Works)	15 days	Fri 26/09/25	Thu 16/10/25	
34		Lime Wash	20 days	Fri 24/10/25	Thu 20/11/25	32,33
35		**Small Out Houses**	**25 days**	**Fri 24/10/25**	**Thu 27/11/25**	
36		Scaffolding	3 days	Fri 24/10/25	Tue 28/10/25	31,32
37		Roof Works	10 days	Wed 29/10/25	Tue 11/11/25	36
38		Stip Scaffolding	5 days	Fri 21/11/25	Thu 27/11/25	34,37
39		**Courty Yard Speck to be agreed**	**25 days**	**Tue 03/02/26**	**Mon 09/03/26**	
40		Paving & Ground Works	25 days	Tue 03/02/26	Mon 09/03/26	34,38,



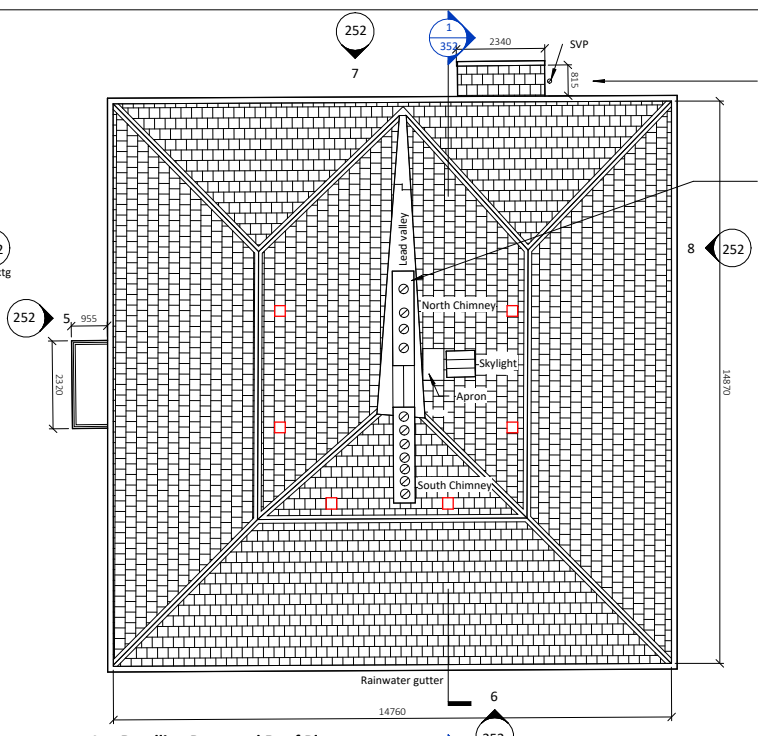


West porch works:
Demolish existing castellated concrete roof. Reconstruct a new roof to include insulation, ventilation & flashings. Hack off the existing wall render. Re-render in insulating lime plaster, replicating the existing chamfered corner details.

6 Dwelling Proposed First Floor Plan
1 : 100



5 Dwelling Proposed Ground Floor Plan
1 : 100



North annex tower:
Hack of the existing sand cement render and re-render with lime insulating plaster. Test the existing roof finish for asbestos. Remove by specialist, if required. Recover the existing roof structure include insulation, ventilation & flashings.

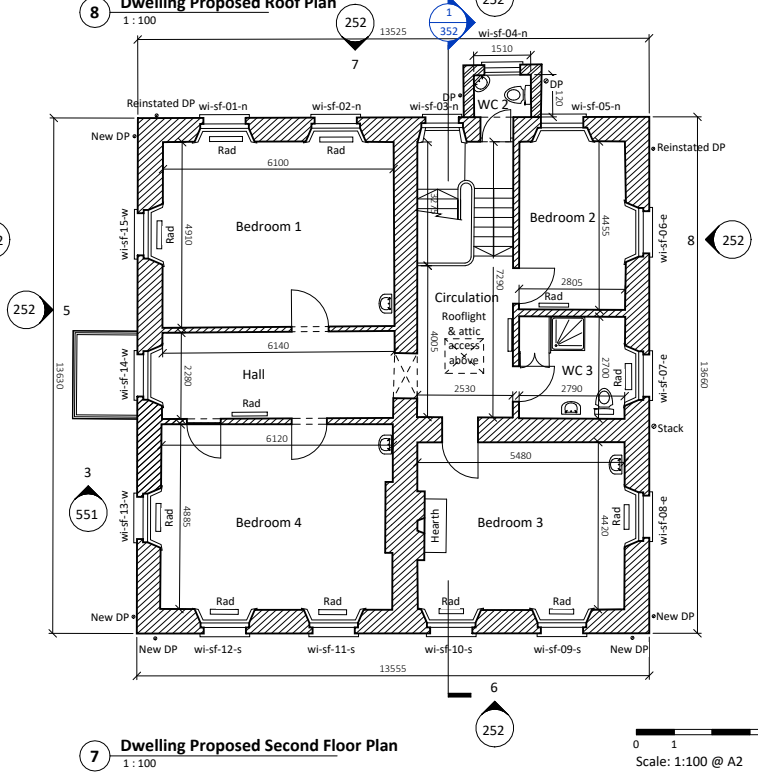
Remedial chimney works:
Hack the existing sand cement render from the two chimney stacks. Inspect condition of existing brickwork, pointing, coping, flues, lead and pots. Following inspection, allow for repair damage to the above items, as required. Repoint and re-render the chimney stacks with lime render (NHL5). Install a fall arrest tie-off point to chimney, for future roof access.

8 Dwelling Proposed Roof Plan
1 : 100

Remedial roof works:
Ventilation:
A new stack-ventilation strategy is proposed from eaves to ridge: the fascia/soffit will be reconstructed to incorporate sufficient vents and new in-line slate vents will be installed along the ridge, on the valley side to be visually discrete. New in-line vents 'Leadworx lead roof vent' or similar approved.
Fascias and soffits:
Remove PVC fascias and soffits, taking care to retain the existing lath and plaster soffit. Review condition of cross-framing between the truss ends to detail, making good as required. Construct new hardwood fascia and soffits over the retained lath and plaster soffit.
Leadwork:
Remedial works to the lead hips, ridges and valleys as required, as per 'Lead Sheet Training Academy' guidance re lead codes, lengths, valley step details, hip and ridge roll details. Roof valley detail: review to ensure existing falls are sufficient. Dress lead valley into the north gutter.
Refurbish timber substrate and lining, to be reconstructed using white deal timber. Include a membrane (Tyvek metal or similar) between lead and timber substrate.
Timber walkway to be included to protect lead from footfall during roof maintenance.
Slate:
Slating generally sound. Review and repair/replace any slipped, loose slates as required. Replacement available from salvaged slate from the coachhouse.
Rainwater goods:
Carefully dismantle and remove cast iron 'Ogee' gutter profiles. Clean with wire brush. Paint with rust convertor, primer, undercoat and finish coat of oil-based gloss. Repair any damage with epoxy. Replace unusable sections with matching 'ogee' profiles. Install downpipes on hinged downpipe brackets, to agreed offsets from lime render. Include a suitable overflow, visible and located below level of potential infiltration.
Timber treatment & repairs:
Following inspection, allow for localised timber splice repairs to any decayed or damaged roof timbers. Allow for rebuilding timber valley boards in White Deal. Allow for treatment of roof timbers, with product approved by the project ecologist and the project decay specialist (Wykabor 10 or similar approved).
Attic services:
Replace metal water tank with insulated and covered plastic tank c300ltr. Install new lighting for access and smoke/fire alarm.

Refer to 11317-005 Proposed Site plan for site drainage.

*Temporary foul pipe to be retained during construction.



7 Dwelling Proposed Second Floor Plan
1 : 100

Façade works:
- Render to be installed as per the attached manufacturer's instructions: 'Technical Handbook for External Application of Thermal Plaster'. Windows/doors to be protected during the hacking off and rendering. Temporarily remove the existing wall-mounted services, rainwater goods, SVPs, etc. Hack off the existing sand cement render to stone walls and brick window reveals. Following hacking, carry out local repairs to ope reveals and sundry wall substrates. Substrate must be thoroughly clean, dry, well consolidated, free of loose material. If needed use Diasen *Aquabond* primer: in this case, no moisten is required. Apply *Diathonite Regularization* anti-salt rendering if any masonry salts are present.

- Install 50mm insulated lime render (Diasen Diathonite Evolution) in 2 layers of 25mm. Timber battens gauges embedded in plaster, removed immediately and backfilled. Do not compress the Diathonite plaster, to preserve the porosity of the product. Include FG Mesh (*Polites 140)* in fresh plaster, gently pressing it about halfway thickness.
- Incorporate '*WATstop*' at plinth, to encapsulate the plaster and prevent water infiltration. Before applying first coat of '*Argotherm Coloured*' finishing coat, wet Evolution substrate. Finished wall to be sealed with Diasen BKK ECO, as a breathable siloxane coating.

- Tape perimeter of windows frames and limestone sills with ProCliama Solido Exo, to seal to the new insulated lime render. Tape to be applied between first and second coats of the diathonite. Seal the underside of the limestone sills to the lime render with '*Aerosanna Visconn fibre*'.

Scale: 1:100 @ A2
0 1 5 10m

DO NOT SCALE DIMENSIONS FROM DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED ON SITE.

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Rev	Date	Description	Iss. by
3	28/02/2025	WIP tender set	OMS

Revision Schedule

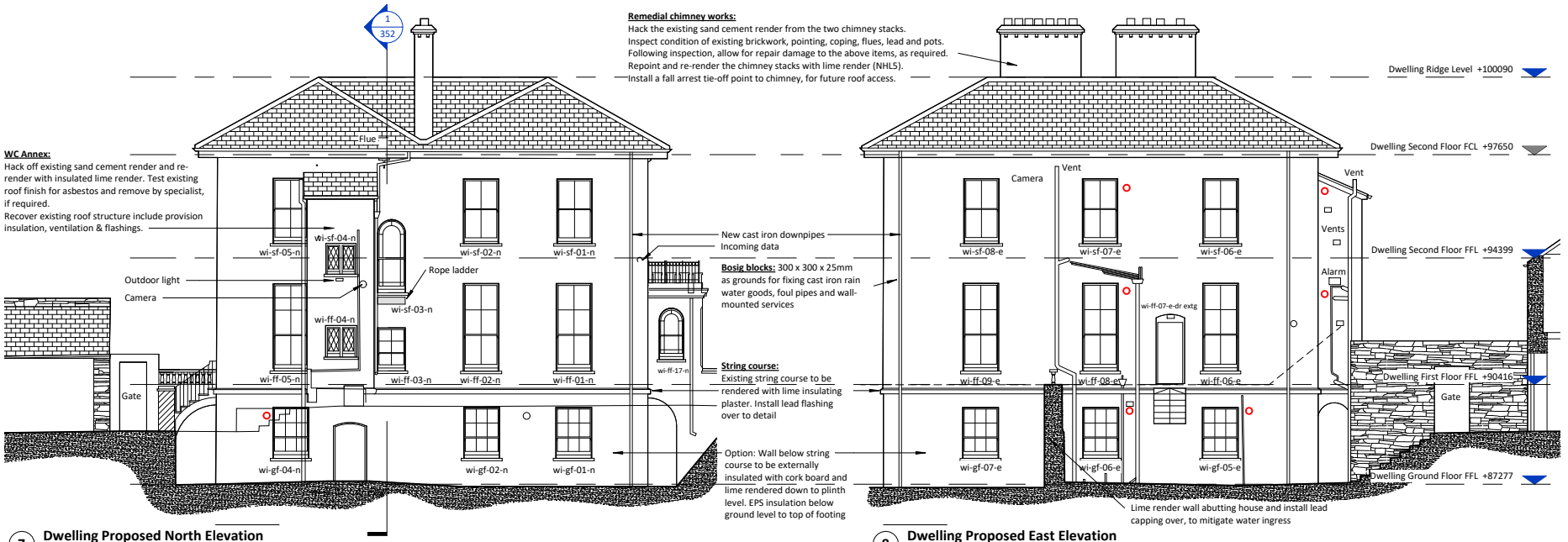
Client:
Pat O'Leary & Ann-Marie O'Brien

Project:
Lissardagh
Lissardagh, Co. Cork

WAIN MOREHEAD ARCHITECTS
Architecture Interior Design Project Management
A: Pembroke House, Pembroke Street, T12 W7YP, Cork, Ireland
T: [redacted] E: [redacted] W: http://www.wma.ie

Drawing:
Dwelling-Proposed Floor Plans

Scale @ A2:	Date:	Drawing No.:
1 : 100	01/08/25	11317-152
Drawn:	Checked:	Revision No.:
FSG	SF	3



WC Annex:
Hack off existing sand cement render and re-render with insulated lime render. Test existing roof finish for asbestos and remove by specialist, if required.
Recover existing roof structure include provision insulation, ventilation & flashings.

Remedial chimney works:
Hack the existing sand cement render from the two chimney stacks.
Inspect condition of existing brickwork, pointing, coping, flues, lead and pots.
Following inspection, allow for repair damage to the above items, as required.
Repoint and re-render the chimney stacks with lime render (NHL5).
Install a fall arrest tie-off point to chimney, for future roof access.

New cast iron downpipes
Incoming data

Bosig blocks: 300 x 300 x 25mm as grounds for fixing cast iron rain water goods, foul pipes and wall-mounted services

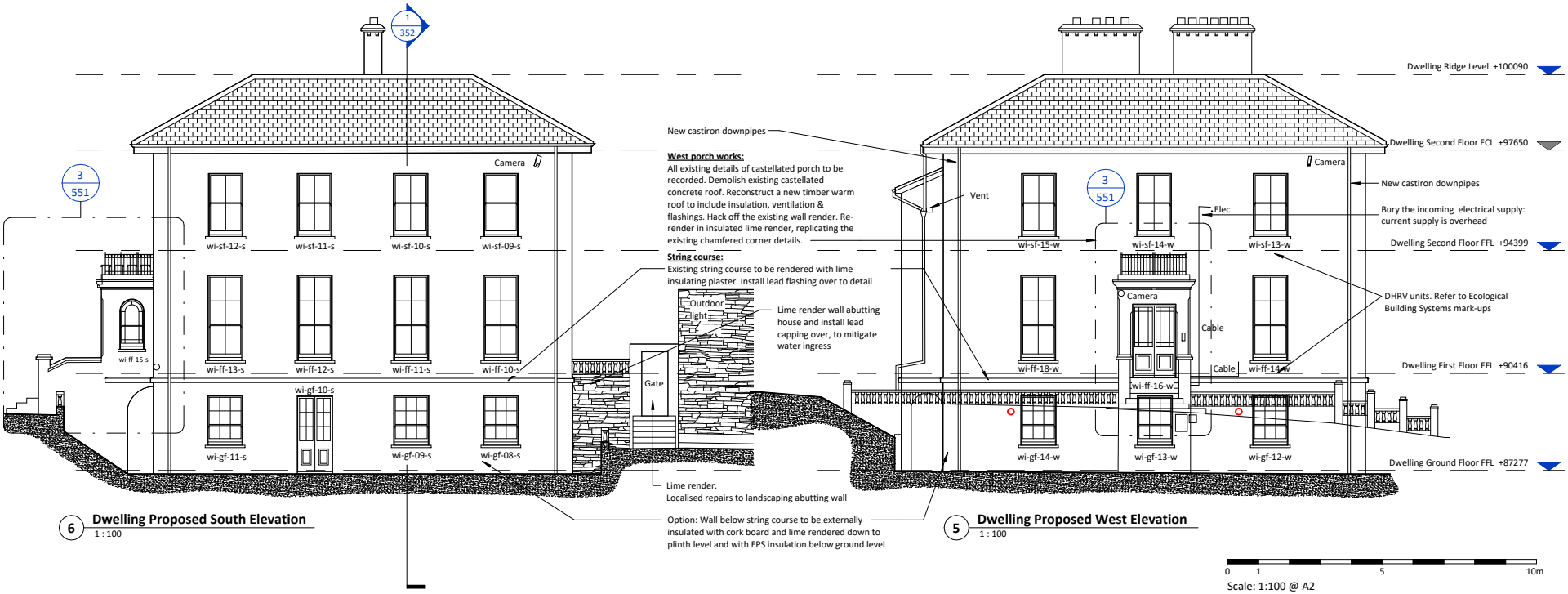
String course:
Existing string course to be rendered with lime insulating plaster. Install lead flashing over to detail

Option: Wall below string course to be externally insulated with cork board and lime rendered down to plinth level. EPS insulation below ground level to top of footing

Lime render wall abutting house and install lead capping over, to mitigate water ingress

7 Dwelling Proposed North Elevation
1 : 100

8 Dwelling Proposed East Elevation
1 : 100



New castiron downpipes

West porch works:
All existing details of castellated porch to be recorded. Demolish existing castellated concrete roof. Reconstruct a new timber warm roof to include insulation, ventilation & flashings. Hack off the existing wall render. Re-render in insulated lime render, replicating the existing chamfered corner details.

String course:
Existing string course to be rendered with lime insulating plaster. Install lead flashing over to detail

Lime render wall abutting house and install lead capping over, to mitigate water ingress

Lime render.
Localised repairs to landscaping abutting wall

Option: Wall below string course to be externally insulated with cork board and lime rendered down to plinth level and with EPS insulation below ground level

New castiron downpipes

Bury the incoming electrical supply: current supply is overhead

DHRV units. Refer to Ecological Building Systems mark-ups

6 Dwelling Proposed South Elevation
1 : 100

5 Dwelling Proposed West Elevation
1 : 100

0 1 5 10m
Scale: 1:100 @ A2

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ALL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTS' SPECIFICATION

Mechanical ventilation - extraction units

Refer to Drawing 11317-152 for proposed specification

Rev	Date	Description	Iss. by
3	28/02/2025	WIP tender set	OMS

Revision Schedule

Client:
Pat O'Leary & Ann-Marie O'Brien

Project:
Lissardagh
Lissardagh, Co. Cork

WAIN MOREHEAD ARCHITECTS
Architecture Interior Design Project Management
8, Pembroke House, Pembroke Street, T12 W7YP, Cork, Ireland
[redacted] W http://www.wma.ie

Drawing:
Dwelling-Proposed Elevations

Scale @ A2:	Date:	Drawing No.:
1 : 100	01/08/25	11317-252
Drawn:	Checked:	Revision No.:
FSG	SF	3

Appendix B - Previous Survey Data

Bat survey of Lissardagh House, Lissardagh, Co Cork

Version: 12th September 2023

ecofact
Environmental Consultants

Tait Business Centre, Dominic Street,
Limerick City, Ireland.

t. [redacted] f. [redacted]

e. [redacted]
w. www.ecofact.ie

TABLE OF CONTENTS

Date	Revision	Status	Author	Reviewed By
12-09-23	1.2	Issued	GW/WOC	WOC

1. INTRODUCTION

Ecofact were commissioned to undertake a bat survey Lissardagh House, Lissardagh, Co Cork. The site is location is given in Figure 1 below. The current report provides the results of a daytime inspection, emergence watch and activity survey.

1.1 Bat species in Ireland

There are eleven recorded bat species in Ireland, nine of which are considered resident on the island. Eight resident bat species and one of the vagrant bat species are members of the Vespertilionidae family. The ninth resident species is the Lesser Horseshoe Bat *Rhinolophus hipposideros*, which belongs to the Rhinolophidae family.

The resident Irish bat species are:

- Daubenton's bat (*Myotis daubentionii*)
- Whiskered bat (*Myotis mystacinus*)
- Natterer's bat (*Myotis nattereri*)
- Leisler's bat (*Nyctalus leisleri*)
- Nathusius' Pipistrelle (*Pipistrellus nathusii*)
- Common Pipistrelle (*Pipistrellus pipistrellus*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Brown Long-eared bat (*Plecotus auritus*)
- Lesser Horseshoe Bat (*Rhinolophus hipposideros)*

Other bat species (vagrants) recorded are:

- Brandt's bat (*Myotis brandtii*)
- Greater horseshoe bat (*Rhinolophus ferrumequinum*)

1.2 Legislation Relating to Bats

Bats 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. This implies that the habitats on which they rely and the ecology of their life cycles should not be compromised by human activities. Where 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. The key legislation which provides protection to bats is outlined below.

1.2.1 Wildlife Act 1976

In the Republic of Ireland, all bats and their roosts are protected under Schedule 5 of the *Wildlife Act 1976* (amended 2000). It is unlawful to disturb either without the appropriate Licence.

1.2.2 EU Habitats Directive

In addition to domestic legislation bats are also protected under the *EC Directive on the Conservation of Natural habitats and of Wild Fauna and Flora* (Habitats Directive 1992). This Directive seeks to protect rare species, including bats, and their habitats and requires that appropriate monitoring of populations be undertaken. All bat species are protected under Annex IV of the EU Habitats Directive,

while the lesser horseshoe bat (*Rhinolophus hipposideros*) is listed under Annex II. Member states are required to designate Special Areas of Conservation for all species listed under Annex II in order to protect them. The EU Habitats Directive has been transposed into Irish law with the European Communities (Birds and Natural Habitats) Regulations 2011.

A total of 41 SACs have been designated for the Annex II species lesser horseshoe bat (1303), of which nine have also been selected for the Annex I habitat 'Caves not open to the public' (8310).

1.2.3 Bern and Bonn Conventions

Ireland has also ratified two international conventions which afford protection to bats amongst other fauna. These are known as the 'Bern' and 'Bonn' Conventions. *The Convention on the Conservation of European Wildlife and Natural Habitats* (Bern Convention 1982), in relation to bats, exists to conserve all species and their habitats. *The Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries, which covers certain species of bat.

1.2.4 Derogation licences

Any works interfering with bats and especially their roosts, may only be carried out under a derogation Licence granted by National Parks and Wildlife Service (NPWS) pursuant to Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (which transposed the EU Habitats Directive into Irish law).

The destruction, alteration or evacuation of a known bat roost is a notifiable action and can only be carried out with a derogation licence from the National Parks and Wildlife Service. Any works that might interfere with bats or their roost sites can only be carried out under licence to derogate from Regulation 23 of the Habitats Regulations 1997 and Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (which transposed the EU Habitats Directive into Irish Law). Details with regards to Appropriate Assessments, procedures and parameters under which derogation licences may be obtained are outlined in Circular Letter NPWS 2/07 *'Guidance on Compliance with Regulation 23 of the Habitats Regulations 1997 – strict protection of certain species / applications for derogation licences'* issued on the 16th of May 2007 on behalf of the Minister of the Environment, Heritage and Local Government.

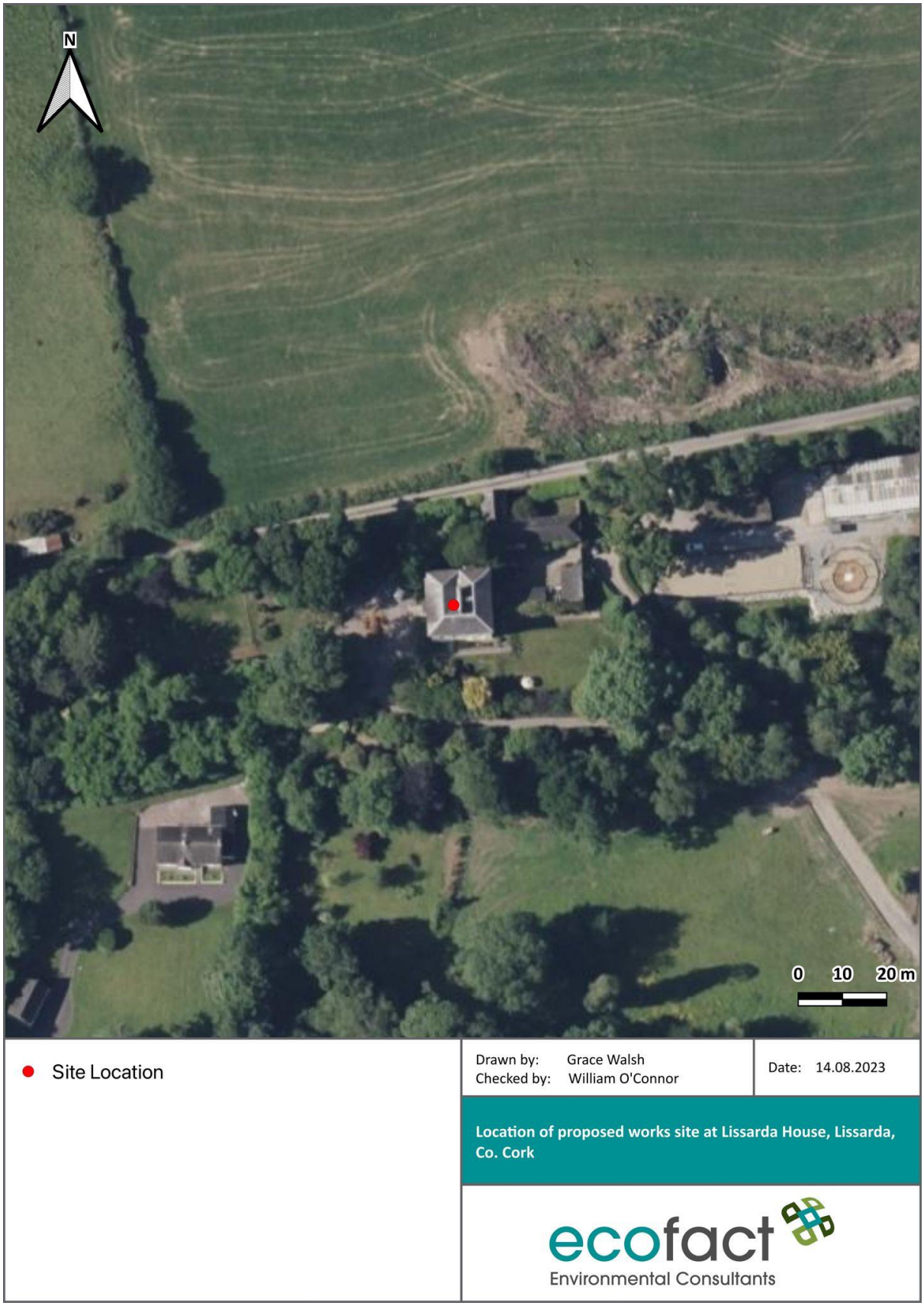

Figure 1 Location of Lissardagh House, Lissardagh, Co Cork

2. METHODOLOGY

2.1 Guidelines

The survey and assessment had regard to the methodology outlined in:

- *Bat Mitigation Guidelines for Ireland v2* by Marnell *et al*., (2022)
- *Bat Tree Habitat Key (BTHK)* by Andrews, H (2018).
- *Bat Surveys for Professional Ecologists: Best Practice Guidelines 3rd Edition* by Collins (2016)
- *Guidance on the strict protection of certain animal and plant species under the Habitats Directive in Ireland* by NPWS (2021)
- *Bat Workers' Manual 3rd Edition* by JNCC (2004) and
- *British Bat Calls: A Guide to Species Identification* (Russ, 2012).

Table 1 Definition of bat roost types adapted from Collins (2016).

Roost Type	Definition
Day Roost	A place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.
Night Roost	A place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.
Feeding Roost	A place where individual bats or a few individuals rest or feed during the night but are rarely present by day.
Transitional/occasional Roost	Used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
Swarming Site	Where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites.
Mating Sites	Where mating takes place from late summer and can continue through winter.
Maternity Roost	Where female bats give birth and raise their young to independence.
Hibernation Roost	Where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.
Satellite Roost	An alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

2.2 Desk study

The bat suitability of habitat in the study area for bats was obtained using the National Biodiversity Data Centre (NBDC) database. This map provides a picture of the broad scale geographic patterns of occurrence and local roosting habitat requirements for Irish bat species. The maps are a visualization of the results of the analyses based on a 'habitat suitability' index. The index ranges from 0 to 100, with 0 being least favourable and 100 most favourable for bats (Lundy *et al* 2011). The NBDC online National Bat Database of Ireland was also accessed to review bat records in the study area.

2.3 Field Surveys

The was visited on the 5th of July 2023. This survey involved a daytime inspection of the site during daylight hours. The surveys involve looking for evidence of roosting bats including live bats, remains of dead bats, droppings, staining, and feeding remains.

An emergence and activity survey was undertaken following the site inspection on the 5th July 2023. The survey was completed from 30 minutes before dusk to 2 hours after dusk. The surveys involved the use of handheld bat detectors (Elekon Batscanner, Echo Meter Touch Pro 2, Anabat Express). Bat species emerging form the building and using the site were recorded. The weather conditions were ideal for the surveys and it was completed within the appropriate season.

3. PROJECT PROPOSAL

The project proposal is to carry out repair works to the roof of the house. An outline scope of works has been prepared by Wain Morehead Architects. This includes a proposal for remedial roof works, remedial chimney works, works to the south façade, external landscaping, attic insulation works, works on the potch, paining works, and works on the courtyard building.

4. RESULTS

4.1 Desk Study

The National Biodiversity Data Centre (NBDC) maps landscape suitability for bats based on Lundy et al., (2011). The maps are a visualisation of the results of the analyses based on a 'habitat suitability' index. The index ranges from 0 to 100, with 0 being least favourable and 100 most favourable for bats. Table 1 below gives the suitability of the study area for the bat species found in Ireland (based on NBDC) along with their Irish Red List Status (from Marnell et al., 2009). The overall assessment of bat habitats for the current study area is given as 32, which is considered to be low. However, the rating for a number of bat species (Brown Long-eared, Soprano Pipistrelle, Common Pipistrelle, Natterer's bat) is moderate.

Table 2 Suitability of the study area for the bat species previously recorded in the Leixlip area (based on the NBDC data). Irish Red list status also indicated (based on Marnell *et al.,* 2009).

Common name	Scientific name	Suitability index	Irish red list status
All bats		32	
Soprano pipistrelle	*Pipistrellus pygmaeus*	42	Least Concern
Brown Long-eared bat	*Plecotus auritus*	49	Near Threatened
Common Pipistrelle	*Pipistrellus pipistrellus*	40	Least Concern
Lesser Horseshoe Bat	*Rhinolophus hipposideros*	12	Least Concern
Leisler's bat	*Nyctalus leisleri*	39	Least Concern
Whiskered bat	*Myotis mystacinus*	31	Least Concern
Daubenton's bat	*Myotis daubentonii*	30	Least Concern
Nathusius' Pipistrelle	*Pipistrellus nathusii*	4	Least Concern
Natterer's bat	*Myotis nattereri*	41	Least Concern

4.1.1 Previous Records

According to the National Bat Database of Ireland as viewed on the National Biodiversity Data Centre, the closest bat record is from approximately 1km southwest of the subject site and is a Daubenton's bat roost in a bridge. There is also a record of a Whiskered Bat roost located approximately 2km west of the site. There is also a record of Brown Long-eared bat roost approximately 2km southwest of the site. There are no other records in the general area of the site.

4.2 Field Survey

4.2.1 Daytime Inspection

The subject site was visited on the 5th of July 2023. The main focus of the survey was the dwelling house onsite. Lissardagh House is a 3-storey Georgian home constructed in the mid 1800s. This house is currently lived in and there are several outbuildings on the site. An external inspection was undertaken and several potential ingress / egress points were noted. These were mainly located in the eaves of the roof, with the mostly suitable locations at the four corners. The roof hips and valleys which were visible from the ground also had some potential ingress and egress points. Due to the shape of the roof, the inner area was not visible from the ground. These areas were focused on during the emergence watch. The habitat around the house consisted of lawns, gardens, mature trees, access roads and a small courtyard. The lawns and gardens were well maintained.

4.2.2 Emergence Watch

Two ecologists were onsite for the emergence and activity survey. One ecologist focussed primarily on the northern side of the building and the other on the south. The temperature at the beginning of the survey was 12°C with no precipitation. Insect activity was low to moderate throughout the survey.

Dusk on July 5th was at 22.44pm and the survey commenced at 22.03pm. The first bat was recorded emerging from the southwest corner of the roof at 22.15pm. This bat, and one which emerged immediately after it were not picked up by the detectors. At 22.23pm a confirmed *Myotis* sp. was recorded emerging from this point. Following these recordings, a further 10 bats were recorded emerging. These were all *Myotis* sp. bats and it was considered that they were most likely to be Whiskered bats. Myotis bats are difficult to identify to species levels using detectors. Indeed, DNA sampling is required to be definite about the species.

In addition, a single bat was recorded emerging from the eave in the centre of the roof facing south prior to dusk. Another bat was recorded coming from the roof. The identification of these bats could not be confirmed. Bats also emerged from the middle of the roof to the west. On the northern side of the house there were a further 10 bats were recorded emerging. These were both *Myotis* sp. and pipistrelle species, most likely all Common Pipistrelles. In total, n=27 bats were recorded emerging from the subject building.

After emergence there was a drop in activity. The *Myotis* sp. bats immediately left the main area of the house flying along the outbuildings and into the wooded area. They were on occasion picked up around the main house after emergence. Pipistrelles were recorded in the area of the main house after emergence. Soprano Pipistrelles were commonly recorded foraging in the yard between the main house and the outbuildings. In the wider area of the site Leisler's and *Myotis* sp., were recorded during the activity survey. There is a road on the site to the south where a *Myotis* sp. bat was recorded foraging at 23.44pm. Common pipistrelles were also recorded in this area around the same time.

The building is confirmed as being a bat roost. It is being used by a significant number of Myotis sp. bats thought to be Whiskered bats (20+). There are also a small number of Pipistrelle bats roosting in the building. Both Common and Soprano Pipistrelles were recorded (<10). The status of the roost for Myotis sp. bats is not known but is likely to be a maternity roost. Whiskered bat maternity colonies usually consist of 20-60 females (Schober & Grimmberger, 1990) and the numbers present at this site are at the lower end of this scale. However, male and non-breeding female Whiskered bats are usually solitary bats. Further survey work would be required to determine the status of this roost; however, it will be assumed that this is a maternity roost. Leisler's bats were also recorded during the survey but they were not roosting in the building.

5. IMPACTS

No works can take place on the house in the absence of a derogation licence. This would include all the works listed in the Wain Morehead Architects report, and any preparatory work.

All bats and their roosts are ***strictly protected*** in Ireland and listed under Annex IV of the EU Habitats Directive. The EU Habitats Directive has been transposed into Irish law with the *European Communities (Birds and Natural Habitats) Regulations* (2011) (S.I. No. 477/2011). All bat species are also protected here under the *Wildlife Act* (1976) and *Wildlife (Amendment) Act* (2000) (S.I. No. 38 of 2000). Impacts on bats may also be the subject of claims under the *European Communities (Environmental Liability) Regulations* (2008) (S.I. No. 547/2008) where bat and their roosts may have been adversely affected by unauthorised activities.

Some specific comments on the propsoal are as follows:-

- Assuming weatherproofing the roof involves sealing all holes and gaps the permanent loss of the roost will occur.
- It is planned to install scaffolding on southeast corner – this is where most of the bats were observed. Works here to open the area would directly impact the ingress/egress point.
- Remedial works to slating, leadwork, hips, ridges, valleys may also remove ingress/egress points.
- CCTV is proposed to be installed on the southern wall. If this includes a sensor light near roost entry and exits this would reduce roost suitability.
- All works in the attic including insulation would result in roost no longer being used.
- Chemicals used to treat roof timbers could also cause issues.
- If any roof works are undertaken in the summer disturbance impacts from noise, increased human activity and lighting.
- Bats exiting the roof flew along the edge of the south facing outbuilding, which has a lot of ivy growth. If this was illuminated for example by lighting associated with CCTV this could cause disturbance and potential loss of the roost.

6. MITIGATION

- A derogation Licence under Regulation 25 of the European Communities (Natural Habitats) Regulations 1997 will be obtained for this work from the *National Parks and Wildlife Service* in advance. No work on any of the buildings can be undertaken without this licence being in place. Disturbance of a known bat roost is a notifiable action under current national and European legislation.

- No lighting, CCTV, or painting should also be completed on the house without a derogation licence and mitigation being in place.

- Internal inspections can also only be undertaken outside of the active bat season and will also require a derogation licence to be in place. Internal inspections would be required to identify areas where bats are currently roosting, and also be required to confirm bats aren't hibernating there. However, as the house is occupied it is unlikely that bats will be hibernating here as it will be too warm.

- Works can be planned for outside active bat season (e.g. October to April) and completed under a derogation licence. The best approach would be to accommodate the bats in the roof/attic in

a managed way. Internal inspections can identify areas for where artificial roost compartments could be installed. These would be closed off areas of the attic designed to limit the areas accessible by bats, but nonetheless allow bats to continue to use the roost. Two of these small "bat lofts" would be required – one for Myotis sp. bats and one for Pipistrelles. These would be closed off areas of the attic designed to be artificial roosts compartments. To facilitate access to these compartments, gaps would be left in the roof so that bats could enter. Incorporating gaps where the existing ones are would be the ideal approach to allow bats to re-enter into artificial roost compartments. An internal inspection will identify the most suitable areas for this but likely the southeast corner and other area along the eaves would be suitable. This can be done with simple gaps left in the masonry, soffit gaps, raised lead flashing or purpose-built bat entrances (Marnell *et al*. 2022). Ridge tiles and raised roofing tiles may also be incorporated.

- The designs of the access tiles and compartments would follow the Bat Mitigation Guidelines (Marnell *et al*. 2022) and would need to be designed with an ecologist.

- The small bat lofts would constitute areas cut off from the rest of the attic. This is the ideal solution as the roost is maintained but in a more managed and controlled way.

- If providing ongoing access to the attic / roof area for bats is not agreeable to the house owner, artificial roosts away from the house could be provided instead. This would have a reduced likelihood of success and would require the permanent exclusion of bats from the attic. This approach would also require a derogation licence and may include the provision of bat boxes / artificial roosts away form the house. The possible modification of one of the outbuildings could also be explored. This is not the preferred approach and it would be more difficult to get a derogation licence. But if the bats are causing issues for the homeowner, then this may have to be the option pursued.

- To support the derogation licence more surveys should ideally be undertaken. A full night and dawn swarming survey in early September would be an informative survey to complete. An out of season internal survey of the attic will also be required.

- Any chemicals and materials used inside the roof will need to be approved by an ecologist if the roof roost is to remain.

- Some additional landscaping for bats could be provided with night scented plants.

- Bat Conservation Trust & Institute of Lighting Professionals (2018) guidance may also be followed in relation to any lighting, as well as Bat Conservation Ireland's *Bats & Lighting: Guidance Notes for Planners, Engineers, Architects and Developers* (2010).

PLATES

Plate 1 Eastern face of the subject house. During the activity survey a Soprano pipistrelle was often recorded foraging here.

Plate 2 The south-eastern section of the house immediately before the survey commenced. Approximately 12 bats were recorded emerging from this corner.

Plate 3 Western face of the subject house. Bats were recorded emerging from the roof here.

Plate 4 The surrounding area consists of ornamental gardens, mature trees and well managed lawns.

Plate 5 Outbuildings on the proposed development site.

Plate 6 Sensor lighting on the proposed development site. There were sensor lights to the north and east of the house.

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Appendix C - Previous Derogation Licence

Derogation Number
DER-BAT-2025-221

EUROPEAN COMMUNITIES (BIRDS AND NATURAL HABITATS) REGULATIONS, 2011 (S.I. No 477 of 2011)

DEROGATION

Granted under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, hereinafter referred to as "the Habitats Regulations".

The Minister for Housing, Local Government & Heritage, in exercise of the powers conferred on him by Regulation 54 of the Habitats Regulations hereby grants to **Pat O'Leary** of **Lissardagh House, Lissarda, Cork , P14 K002** a derogation. It is stated that this derogation is issued:

A. 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
B. As there is no satisfactory alternative, and the action authorised by this derogation will not be detrimental to the maintenance of the population of **bats** referred to below at a favourable conservation status in their natural range.

This derogation authorises the following:

1. Roost disturbance
2. Actions authorised within the derogation

The derogation is issued in respect of the following **bat species**:

- **Brown Long-Eared Bat** **Plecotus Auritus**
- **Natterer's Bat** **Myotis Nattereri**
- **Common Pipistrelle** **Pipistrellus Pipistrellus**
- **Soprano Pipistrelle** **Pipistrellus Pygmaeus**
- **Daubenton's Bat** **Myotis Daubentonii**
- **Whiskered Bat** **Myotis Mystacinus**

Terms and Conditions

1. This derogation is granted solely to allow the activities specified in connection with the works located at **Lissarda House, Lissarda, Cork, P14 K002**, for **Pat O'Leary.**
2. All activities authorised by this derogation, and all equipment used in connection herewith, shall be carried out, constructed and maintained (as the case may be) so as to avoid unnecessary injury or distress to any species of **BAT**. Anything done other than in accordance with the terms of this derogation may constitute an offence
3. This derogation may be modified or revoked, for stated reasons, at any time.
4. The mitigation measures outlined in the application report (**Bat Derogation Licence Application – Supporting Document Lissardagh House**, together with any changes or clarification agreed in correspondence between NPWS and the agent or applicant, are to be carried out. Strict adherence must be paid to all the proposed measures in the application.
5. The actions which this derogation authorise shall be completed between **10.04.2025 – 31.12.2025**
6. The works will be supervised by bat ecologist: **Colm Breslin**
7. If this derogation addresses works that are subject of a planning application, no such works permitted under this derogation can occur until planning permission is granted.
8. If this derogation expires prior to works permitted under this derogation commencing, a new application must be sought in advance, including the provision of any updated data or reports.
9. This derogation shall be produced for inspection on a request being made on that behalf by a member of An Garda Síochána or an authorised NPWS officer appointed under Regulation 4 of the Habitats Regulations.
10. The local **NPWS Conservation Ranger,** Louis.OSullivan@npws.gov.ie**,** must be contacted prior to the commencement of any activity, and if bats are detected on site during the course of the work, under the terms of this derogation.
11. On completion of the actions which this derogation authorises, all recordings of bat species affected will be made using the standardised data form provided below and must be submitted to the NPWS **within four weeks of the expiry date of this licence**. Included with the below returns form, a report will also be submitted to wildlife.reports@npws.gov.ie detailing results of works and success of mitigation. **Both documents must be submitted to constitute a derogation return.**

For the Minister for Housing, Local Government & Heritage

(an officer authorised by the Minister to sign on his behalf)

10 April 2025

Any query in relation to this derogation should be sent to reg54derogations@npws.gov.ie

O'DONNELL
ENVIRONMENTAL