Technical Note

Project:	**Grange Cottage**		
Subject:	**Bat Derogation Licence Application Report**		
Prepared by:	**Dr Emma Boston BSc (Hons) MRSB, CEcol, MCIEEM**	Date:	**06/06/2025**

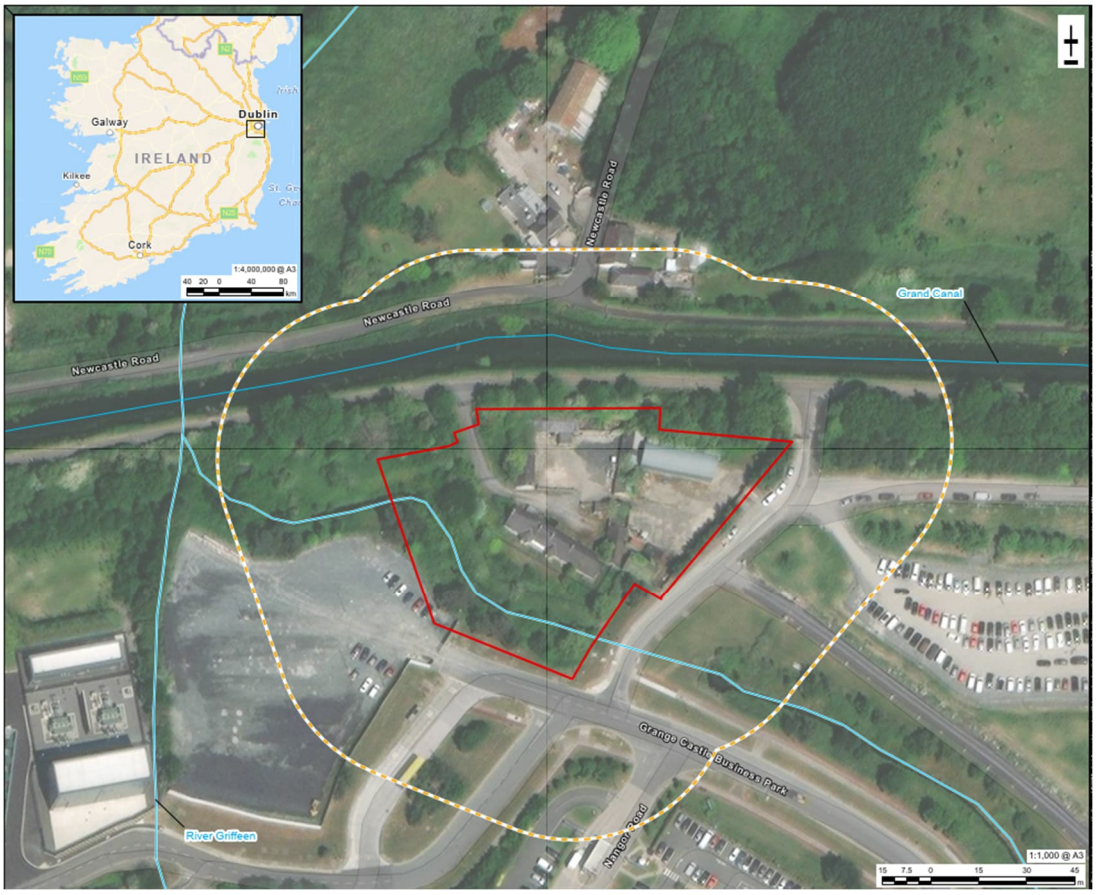
Introduction

Background

AECOM Ireland Limited (AECOM) was commissioned by South Dublin County Council (SDCC) to conduct an Ecological Impact Assessment (EcIA), including bat surveys in relation to the Part 8 planning application for the proposed 12th Lock Grange Cottage, which involves the redevelopment of Grange Cottage and associated farm outbuildings (herein referred to as the 'Proposed Development'). The area of the Proposed Development is included in the overall 12th Lock Masterplan at the 12th Lock on the Grand Canal, Lucan, Co. Dublin.

The location of the Proposed Development is referred to as the 'Site' and is shown on Figure 1. The Site is located on the northern edge of Grange Castle Business Park, facing onto the south bank of the Grand Canal and it is situated to the east of the R120. The Proposed Development consists of Grange Cottage and the associated farm outbuildings which enclose two courtyards to the north and the east of the cottage. The Site is currently derelict with the structures in various levels of deterioration. Dry meadow grasslands, treelines, mixed broadleaved woodland and scrub form borders around the courtyards and outbuildings.

Figure 1 Site location (outlined in red)



Baseline surveys to inform the planning application were carried out by AECOM Ecologists, which included a Preliminary Roost Assessment (PRA) of all buildings and follow up emergence and activity surveys in 2024 using methods described in BCT guidance (Collins, 2023).

Survey Methods

Preliminary Roost Assessment

Structures were categorised within the Site as having Negligible, Low, Moderate, or High suitability for roosting bats, in accordance with the definitions provided in BCT guidance (Collins, 2023, 2016) (Table 1).

Table 1. Bat roost suitability categories – structures

Suitability	Description of roosting habitats in structures
Negligible	No obvious habitat features on site; however, a small element of uncertainty remains.
Low	A structure with one or more potential roost features that could be used by individual bats opportunistically at any time of the year. Unsuitable for large numbers of bats.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to the size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation status roosts such as maternity or hibernation roosts.

Source: (Collins, 2023).

Emergence Surveys

Dusk emergence surveys commenced 15 minutes prior to sunset and ended 1.5 hours after sunset. Surveyors positioned themselves with clear views of potential access features to observe any bat emergence (or entry). Any incidental bat activity was noted in the wider area during the survey. The buildings were watched carefully and if any bats emerged or re-entered, the surveyors attempted to pinpoint the roost location and identify and count the number of bats emerging / re-entering, where light conditions permitted. Surveyors listened for bats using detectors and on hearing a bat, they attempted to identify species, flight direction, height, and bat behaviour. Batlogger M (Elekon) detector ('Batlogger') / bat detectors were employed as a means of recording bat echolocation calls and identifying species present. General bat activity was also noted during the survey to provide further information on use of the area by bats.

As per the BCT guidance (Collins, 2023) night vision aids (NVA); e.g. infrared (IR) cameras) were deployed. The cameras were set up to face potential access features and IR cameras were equipped with a torch-style IR light (for pin-pointing features), an IR flood light (for wider field of view) and a SM4 static detector or Batlogger held by a surveyor.

Ecology Personnel

These surveys were led by experienced ecologist Dr Emma Boston BSc (Hons) MRSB CEcol MCIEEM is an Associate Director with 18 years' professional experience in the survey of bats for research, conservation, and consultancy. Emma has expertise in the survey methods for bats using of a range of survey methods, techniques, and equipment, including acoustic call analysis. She has carried out bat surveys for small and large developments, and infrastructure schemes. She been involved in many projects where she has designed and prescribed specific mitigation for bats and has held licences in Northern Ireland, the Republic of Ireland to disturb or catch bats for development, education, and research purposes; and holds a NatureScot and Natural England Level 4 licence.

She was accompanied by Laura Cappelli BSc (Hons), MSc, MCIEEM a Senior Ecologist with 7 years' experience in ecological consultancy and the survey of bats, and Aoife Whyte BSc (Hons) a Graduate Ecologist with 2 years' experience in ecological consultancy and bat survey.

Results

Preliminary Roost Assessment

The PRA of structures within the Site carried out on 07 February 2024 identified two structures, large open farm buildings, as having Low suitability for roosting bats (S04 and S05), given they were derelict, with roofs in poor condition, with sections of missing tiles and open doors. A small number of scattered bat droppings were found within S04, but no feeding remains (e.g., moth wing cases) found within either structure. It was considered possible that bats only entered the structures for foraging, exploiting insects that may shelter in these covered areas, rather than roosting within the buildings themselves. However, there is potential that brown long-eared bats could utilise these as feeding roosts and there are features present (open beams) that may be used by small numbers of roosting bats.

Details of these structures are presented in Table 2 and in Plate 1 and 2.

Table 2. Information on structures with Low bat roost suitability

Structure reference	Structure description	Roost type	Access / roost features	Location (ITM coordinates)
S04 (see Plate 1)	A L-shaped open derelict structure with vegetation growing out of the roof in parts. The walls are made of stones and the roof is slated with internal wooden beams.	Low suitability. Potential feeding roost/day roost.	The building has wooden beams as well as tiles and stone walls that may support one or small numbers of bats opportunistically. Bat droppings were observed internally. No feeding remains noted, but buildings are open and is considered suitable for use as a feeding perch by brown long-eared bats.	703213, 732286
S05 (see Plate 2)	An open derelict structure with metal sheet roofing. The walls are made of concrete with some wooden beams.	Low suitability. Potential feeding roost/day roost.	The wooden beams within the building may support one or small numbers of roosting bats opportunistically. No bat evidence, including any feeding remains was observed internally. Building is open and is considered suitable for use as a feeding perch by brown long-eared bats.	703240, 732249

Plate 1. S04 internal view

Plate 2. S05 internal view

The other four structures within the Site assessed during the PRA had Negligible suitability based on a lack of suitable roost features. These structures were well-sealed and comprised a recently abandoned house that had no suitable openings for bats and sheds that were composed of corrugated roofing materials and as such these structures have not been mapped or further described.

Dusk emergence survey

Buildings S04 and S05, both of Low suitability to support roosting bats were subject to a single dusk emergence survey on 08 May 2024. Two surveyors and two IR cameras were deployed at S04, while one surveyor and one IR camera was deployed at S05. Refer to Table 3 for information on the bat emergence survey conditions. Weather conditions likely to influence bat activity including temperature (automatically recorded by Batloggers), wind, and rain (if any) were also recorded.

Table 3. Bat emergence survey details

Structure	Start	End	Sunset	Weather conditions
S04 and S05	20:53	22:38	21:08	14°C, 60-90% cloud cover, gentle breeze, dry.

The survey confirmed a total of three bats roosting within the Site. The confirmed roosts comprise potentially three-day roosts, with individual or small numbers of bats, within S04 and S05. Structure S04 was divided and named according to the northern extent of the building ('S04-N') and western extent of the building ('S04-W'). Species confirmed as roosting comprise brown long-eared bat, and soprano pipistrelle. No evidence was observed to suggest these buildings were used as feeding perches or night roosts. A summary of bat roosts is presented in Table 4.

Incidental activity observed during the emergence survey included commuting and foraging Leisler's bat and pipistrelle species.

Table 4. Bat roost details

Ref.	Confirmed roost type	Species	Description	Notes
S04-N	Day roost	Brown long-eared bat	Emergence of three brown long-eared bats from open door.	Two bats observed emerging from the structure through the open door approximately an hour and eight minutes after sunset. No calls were recorded but based on the time of emergence, and the size and flight style of the bats, it is likely two brown long-eared bats. A single bat was also recorded foraging outside the building thereafter, also likely brown-long eared bat. Another bat emerged from the structure also through the door approximately an hour and thirteen minutes after sunset. This species was likely brown long-eared bat.
S04-W	Day roost	Brown long-eared bat	Emergence of two brown long-eared bats from open door.	A single bat was observed entering the structure through the door approximately an hour and nine minutes after sunset through the door. A re-emergence occurred thirteen seconds later. This species was likely brown long-eared bat, and potential the same bat that emerged from S04-N. Another bat was recorded flying around within the structure and later recorded emerging through the door approximately an hour and thirteen minutes after sunset. This species was also likely brown long-eared bat.
S05	Day roost	Soprano pipistrelle	Single emergence of soprano pipistrelle from the rafters of structure.	A single soprano pipistrelle bat observed emerging from the rafters of the structure, approximately 36 minutes after sunset. A single bat observed foraging around the building approximately 38 minutes after sunset.

Requirement for licence

As the planned redevelopment works will result in the loss of at least three confirmed day roosts, we have recommended that works can only commence with a Derogation Licence in place.

As it stands the two buildings are in a poor state of repair and will deteriorate naturally if these works do not proceed. The roofs have multiple gaps, leading to water ingress to the joists. They are also at risk of anti-social behaviour given the location next to the canal, and at present have a continuous security presence. As such we believe that this work qualifies under Regulation 54(2)(A-E) of the European Communities (Birds and Natural Habitats) Regulations, Test 1, c) for the in the interests of public health and public safety, but also for reasons of overriding public interest. The 12th Lock development, and the redevelopment of these derelict buildings will have both social and economic benefits for the local community.

In addition, it meets Test 2, the absence of satisfactory alternative. Any refurbishment of these buildings will inevitably involve the removal and replacement of the existing joists and roof tiles given their state of repair. As such, the only alternative is not to renovate, but as outlined above I don't believe this is in the interests of public safety.

We request a derogation licence, and propose the following:

- The licence holder will oversee and advise both contractors and Site operators on mitigation implementation. They will be present during the enabling works, which will include the removal of vegetation around and on the buildings (including sections of roof), and during the removal of the old slates and rafters);
- Specific timing requirements – redevelopment works must take place between September and mid-November inclusive, to pose the lowest risk to roosting bats;
- The provision of a minimum of five bat boxes to compensate for the loss of bat roosting habitat must be mounted on site prior to the enabling works, these will be of types suitable for both soprano pipistrelle and brown long-eared bats;
- Should any bats be found during these works, the licence holder will move the bat to one of the mounted bat boxes.