environmental
Allen & Mellon Environmental Ltd

Bat Roost Survey Report

Kiltipper Woods Care Home, Tallaght, Dublin

Planning Application Ref: SD21A/0287

Allen and Mellon Environmental

March 2022

Report Number	AMC 2022-11
Title	Bat Roost Survey Report – Kiltipper Woods Care Home, Tallaght, Dublin
Commissioned by	G.I. Martin Architects
Authors	Clive Mellon Allen and Mellon Environmental Ltd 101 Priory Park, Belfast BT10 0AG T: 02890 584105
NPWS licence details	Licence No.: DER/BAT 2021-05 (survey licence)
Date report issued	Final version – 7th March 2022

The information provided in this report has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.
We confirm that the opinions expressed are our true and professional bona fide opinions, based upon our interpretation of the field conditions experienced at the time of survey. We do not accept any responsibility for material changes to field conditions which may have occurred subsequent to the survey date.

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Report Summary

This report provides details of a bat survey by Allen and Mellon Environmental of a section of a building situated at Kiltipper Road, Tallaght, County Dublin. The survey was commissioned in relation to a planning application for an extension at the eastern end of the building.

The building is a modern structure purpose-built as a care home in 2004. The proposed extension will affect only a small part of the building and a significant section of the area affected is a flat-roofed area which houses the current reception area.

A survey to assess the use of the building by bats was undertaken under NPWS licence in February 2022. No evidence of bat occupation such as live bats, droppings or food remains was found in either the interior or exterior of the building.

There are no notable gaps between the roof slates and ridge tiles while the PVC fascia boards and soffits are generally in excellent repair and fit tightly to the walls and roof. The PVC window frames are also in good repair with no cracks or cavities between frame and walls.

There were no obvious access points to the building's roof voids which were extremely well-insulated and maintained. The roof-void ceilings were lined with plywood-faced boarding and insulation panels preventing access by bats into the roof space area. Many sections were partially floored and were used as storage space.

Several gaps were recorded in the exterior roof structure as follows:

i) A large gap in the PVC fascia;

ii) Lifted lead flashing

iii) Gaps in the lead flashing around one of the roof valleys;

iv) A gap where the corner of the flat roof joins the pitched roof slates.

On the basis of the evidence obtained, the building was classified as low suitability for roosting bats. However the presence of individual or small numbers of bats using the building in spring or summer could not be excluded.

In line with the Bat Mitigation Guidelines, a single dusk emergence survey should be undertaken in advance of construction work in order to confirm whether bats are present. This survey should be carried out between May and August.

If no emerging bats are recorded then no further work is recommended for this proposal. If the presence of roosting bats is confirmed further survey work may be required and a Mitigation Plan will be required before development work can commence.

1 Introduction

1.1 Allen & Mellon Environmental Ltd. was commissioned to undertake a bat roost inspection of part of a residential care home at Tallaght on the outskirts of Dublin (Appendix 1). The survey was required in relation to a planning application (Ref: SD21A/0287) for a proposed extension to part of the existing building.

1.2 All bat species and their roosting sites are strictly protected by law. As a result, bat surveys or inspections are required for a wide range of development proposals relating to buildings and other structures.

1.3 In the planning decision letter of 14th December 2021, the planning authority South Dublin County Council requested a bat survey as follows:
"Given the proximity of the Dodder Valley, a bat survey carried out by a suitably qualified professional is required."

1.4 This report details the results of a survey undertaken to establish:

a) Whether any roosting bats were present or had recently been present in the building and
b) The potential suitability of the building for roosting bats.

2 Regulatory Context

2.1 All Irish species of bats are listed in Annex IV of the EU Habitats Directive and classified as European protected species. All bat species are strictly protected in Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011, which supplements the original protection afforded by the Wildlife Acts 1976 & 2000.

2.2 The lesser horseshoe bat is also included in Annex II of the Directive, so that areas of particular importance for the species can be designated as Special Areas of Conservation (SACs).

2.3 Under the Habitats Regulations it is an offence:

- Deliberately capture or kill a bat
- Deliberately disturb a bat particularly during the period of breeding, rearing, hibernation and migration
- Damage or destroy a breeding site or resting place of a bat

2.4 Provision is made in the Regulations for derogations to be granted in certain circumstances where an offence such as disturbance may take place. This includes the survey of potential roost sites which may be affected by development proposals.

2.5 In this case the survey was conducted under Licence No.: DER/BAT 2021-05 (survey licence), granted under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011.

3 Statement of authority

3.1 The Bat Roost Potential survey was undertaken under licence by Clive Mellon (CM) the Director of Allen and Mellon Environmental. CM is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and has been undertaking bat surveys for 14 years.

3.2 He was trained in bat survey techniques in 2010 by Neil Middleton of Echoes Ecology who also provided training to NIEA staff in 2009. The company regularly undertake bat roost assessments of proposed development sites under licence and have undertaken bat activity or emergence surveys at over 50 sites.

3.3 CM was assisted in the external building inspection by Allen and Mellon's Consultant Ecologist Anna Hart. Anna is an experienced field naturalist who has been trained by the Directors in bat survey techniques. She has experience of bat survey techniques and methods including activity, roost assessments and emergence surveys.

4. Site description

Exterior

4.1 The Kiltipper Woods Care Centre is a modern purpose-built facility which opened in 2004 (Figure 1). The proposed extension will affect only a small part of the building as illustrated in Appendix 2 of this report. A significant section of the area affected is a flat roofed area which houses the current reception area (Figure 2), although there are also sections of pitched fibre-slate roof within the extension area.

4.2 The building is a typical modern rendered block wall construction, which has been maintained to a high standard. There are no notable gaps between the roof slates and ridge tiles while the PVC fascia boards and soffits are generally in excellent repair and fit tightly to the walls and roof. The PVC window frames are also in good repair with no cracks or cavities between frame and walls.

4.3 The only gaps in the exterior roof structure are associated with lead flashing particularly where this abuts the roof tiles, and in one location where there is a gap at the end of one section of soffit and fascia.

Interior

4.4 There were no obvious access points to the building's roof voids which were extremely well-insulated and maintained. The roof-void ceilings were lined with plywood-faced boarding and insulation panels preventing access by bats into the roof space area (Figure 3). Roof timbers are treated and intact with no cracking, gappy joints or holes. Many sections were partially floored, fitted with electric lighting and used as storage space (Figure 4).

Figure 1 Building exterior

Figure 2 Flat roof at front of building

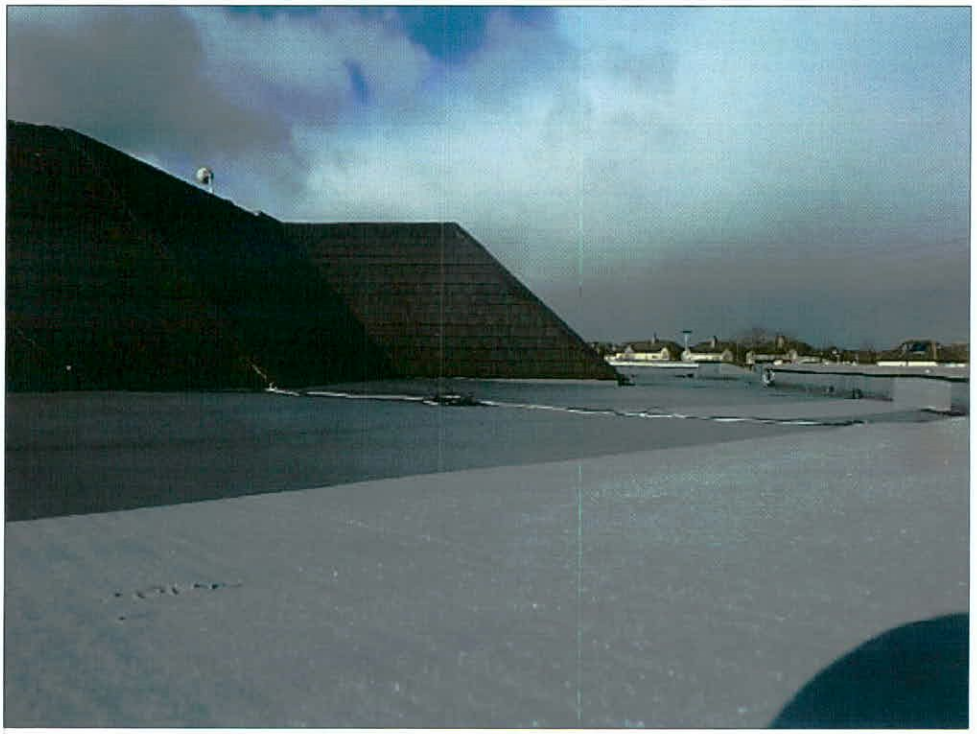

Figure 3 Typical roof void area

Figure 4 Roof void used for storage

5 Bat Roost Potential Survey

Methodology

5.1 The aim of the survey was to assess the potential suitability of the area affected by the extension proposal for roosting bats. This included searching for roosting bats or any evidence that roosting bats were or had been present.

5.2 The survey specifications were guided by the following sources:

- Bat Mitigation Guidelines for Ireland[1]
- Bat Conservation Trust (BCT) guidelines[2].
- Conditions of NPWS Licence DER/BAT 2021-05

5.3 The site was visited on 22nd February 2022 in calm and sunny weather conditions. A licence for the disturbance of roosting bats had been obtained in advance from NPWS in case any roosting bats were encountered during the search.

5.4 A thorough external investigation was made of the building to search for potential roost features or entry points such as holes in the slate roof, crevices around windows or gaps in walls. Evidence of bat activity such as droppings or staining was also searched for, using binoculars where appropriate. A ladder was used to gain access to the flat roof section at the front of the building. The external search was used to provide an indication of where to target further survey work, particularly where potential entrance points are identified.

5.5 The interior roof voids were accessed by CM only in order to ensure compliance with the terms of the licence and to avoid potential disturbance to hibernating bats. The whole of the interior roof space was accessible for an internal assessment through doors or hatches within the partition walls. Some areas were fitted with electric light but darker areas were investigated by torchlight. Any evidence of occupation such as droppings, urine staining and prey remains were searched for throughout the roof space area.

5.6 Prior to the survey visit a desk study was undertaken to source data from the National Bat Database of Ireland relating to bat roosts or other records in the area around the building. The two key sources of the date are:

- Bat Conservation Ireland
- National Bat Biodiversity Data Centre (NBDC) web site

The NBDC species maps for all bat species were accessed and searched for the presence of any relevant records from 1km square O0925 within which the building is located.

5.7 In addition the survey building was also assessed against a Bat Roost Trigger Index (TI) currently being developed by Swift Ecology. This Excel-based tool is designed to evaluate the suitability of buildings to support roosting bats in a more systematic and objective manner. Although it is still being developed, its use here helps to provide further confirmation of the roost potential. It also provides a helpful checklist of features and criteria to check when carrying out an assessment (see Appendix 2).

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[1] Kelleher, C. & Marnell, F. (2006) Bat Mitigation Guidelines for Ireland. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland

[2] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London

Results – site survey

5.8 No roosting bats, bat droppings or other evidence of bat occupation such as staining or prey remains were found within the roof spaces or around the exterior of the building. Bird droppings were evident on some exterior window sills. Staff spoken to had not encountered any bats within the building.

5.9 A small number of potential entry points were identified on the exterior roof. As access to the roof void appears highly unlikely, any roosting bats would be restricted to the space between the roof tiles and roof lining, or small gaps between the roof tiles and lead flashing. The potential roost features (PRFs) identified were as follows:

1. Large gap in PVC fascia;
2. Lifted lead flashing;
3. A gap in a roof valley between lead flashing and guttering;
4. a gap where flat roof meets the sloped roof tiles.

5.10 On the basis of the inspection the building was assessed as having low potential for roosting bats. The Bat Roost Trigger Index also concluded that the suitability of the building for roosting bats was low (see Appendix 2). The following criteria were considered when making this assessment with reference to available guidance (see Tables 1 & 2).

- The presence of several potential roost features around the roof edges;
- Good foraging opportunities along a nearby wooded stream; but
- Absence of any evidence of bat occupation including droppings either inside or outside the building and
- Lack of access to interior of the building including the roof void.

Table 1 Factors affecting the probability of a building being used by bats in summer[3]

Increase probability (relevant factors highlighted)	Disused or little used; largely undisturbed Large roof void with unobstructed flying spaces Large dimension roof timbers with cracks, joints and holes Uneven roof covering with gaps, though not too draughty Entrances that bats can fly in through Hanging tiles or wood cladding, especially on south-facing walls Rural setting **Close to woodland and/or water** Pre-20th century or early 20th century construction **Roof warmed by the sun** Within the distribution area of horseshoe bats
Decrease probability (relevant factors highlighted)	Urban setting or highly urbanised area with few feeding places Small or cluttered roof void (esp. for brown long-eared bat) Heavily disturbed **Modern construction with few gaps around soffits or eaves (but be aware these may be used by pipistrelles in particular)** Prefabricated with steel and sheet materials Active industrial premises Roof shaded from the sun

[3] Kelleher, C. & Marnell, F. (2006) Bat Mitigation Guidelines for Ireland. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland

Table 2 Guidelines for assessing potential suitability for roosting bats[4]

Risk Category	Roosting habitats
Negligible	Negligible features which could be used by roosting bats
Low	Structure with one or more potential roost sites that could be used by individual bats opportunistically. These do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis by large numbers of bats (e.g maternity or hibernation roosts).
Moderate	Structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	Structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Results – desk study

5.11 The data obtained from the National Bat Database for Ireland is summarised in Table 3. This shows that there are no bat records for the 1km square within which Kiltipper Woods Care Home is located. The nearest bat records on the database relate to a series of Daubenton's bat records obtained along the River Dodder at Oldbawn during the All-Ireland Daubenton's Bat Waterways Survey.

Table 3 Summary of National Bat Database of Ireland records

Species	Records within Square O0925	Location of nearest record	Date	Distance from Kiltipper Woods
Brown long-eared bat	0	O121238	04.09.2007	3.5km
Common pipistrelle	0	O105269	24.08.2012	2.5km
Daubenton's bat	0	O097263	2006-2013	1.5km
Leisler's bat	0	O105269	24.08.2012	2.5km
Nathusius' pipistrelle	0	O163255	04.08.2012	7.5km
Natterer's bat	0	O1424	02.09.2009	5.5km
Soprano pipistrelle	0	O105269	24.08.2012	2.5km
Whiskered bat	0	O155262	01.06.2004	6.5km

[4] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London

6 Assessment and Recommendations

6.1 No bats or evidence of roosting bats was found during the survey. However several potential bat roost features were identified and the building was assessed as being of low bat roost suitability.

6.2 The existence of potential bat roost features alongside the location of the building adjacent to excellent foraging habitat means that the presence of some roosting bats cannot be excluded. In addition the timing of the survey in February means that any evidence left by roosting bats in spring or summer (e.g. droppings) would not necessarily be visible at this time of year, particularly if individuals or small numbers of bats are involved.

6.3 This is recognised in the Bat Mitigation Guidelines which state that *"roosts used by a small number of bats, as opposed to maternity sites, can be particularly difficult to detect and may require extensive searching backed up (in summer) by bat detector surveys or emergence counts. If there is doubt as to whether a structure is used by bats, further visits during the summer or autumn will be required*[5]*"*

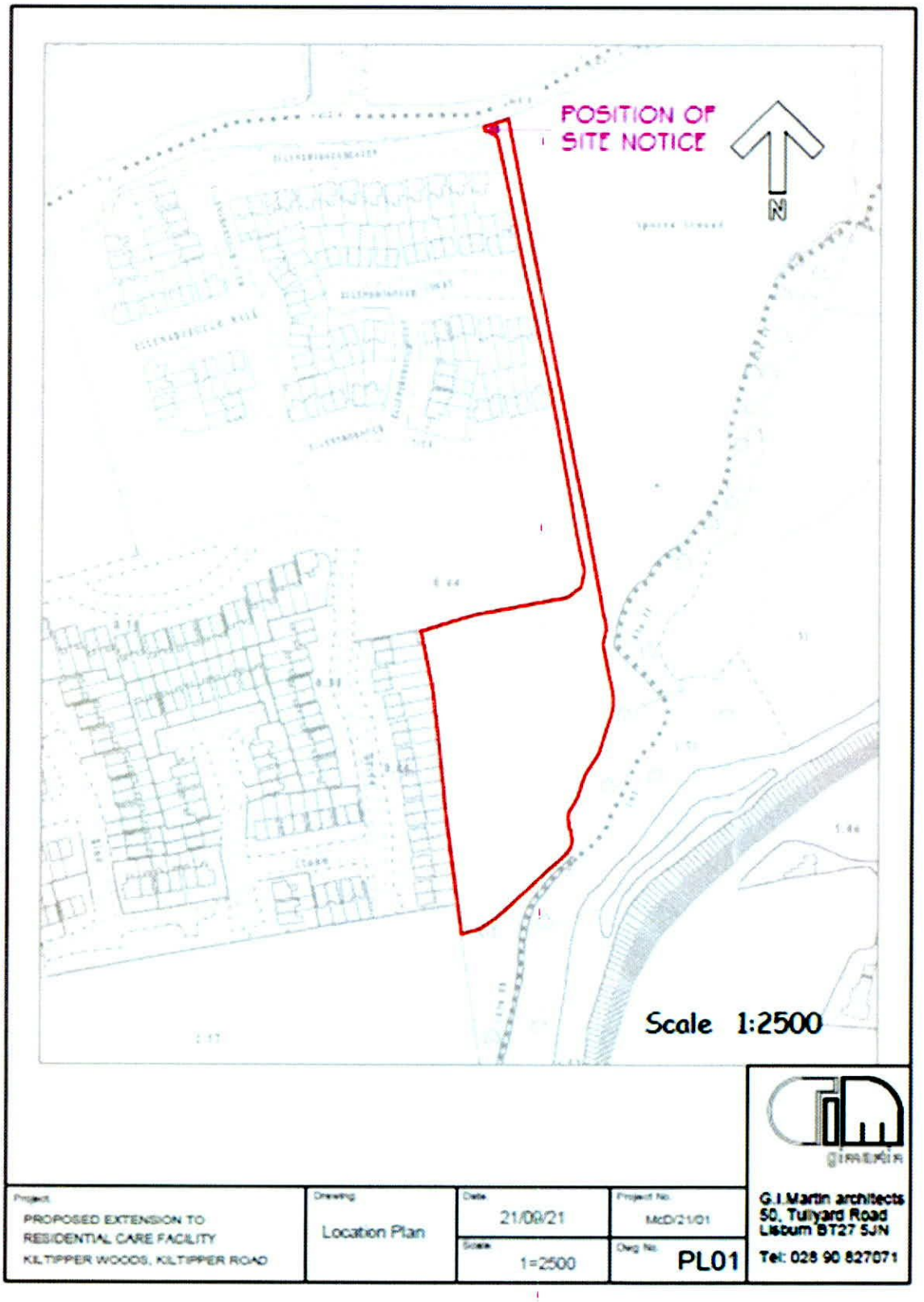
6.4 In light of this assessment it is recommended that before construction work begins, a single dusk emergence survey should be undertaken at an appropriate time of year (May to August) to confirm the presence or absence of roosting bats at the potential roost features identified. Two personnel would be required to ensure coverage of these features.

6.5 If no emerging bats are recorded then no further work is recommended for this proposal. If the presence of roosting bats is confirmed a Mitigation Plan will be required before development work can commence.

[5] Kelleher, C. & Marnell, F. (2006) Bat Mitigation Guidelines for Ireland. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland

APPENDICES

Appendix 1 Location of building surveyed

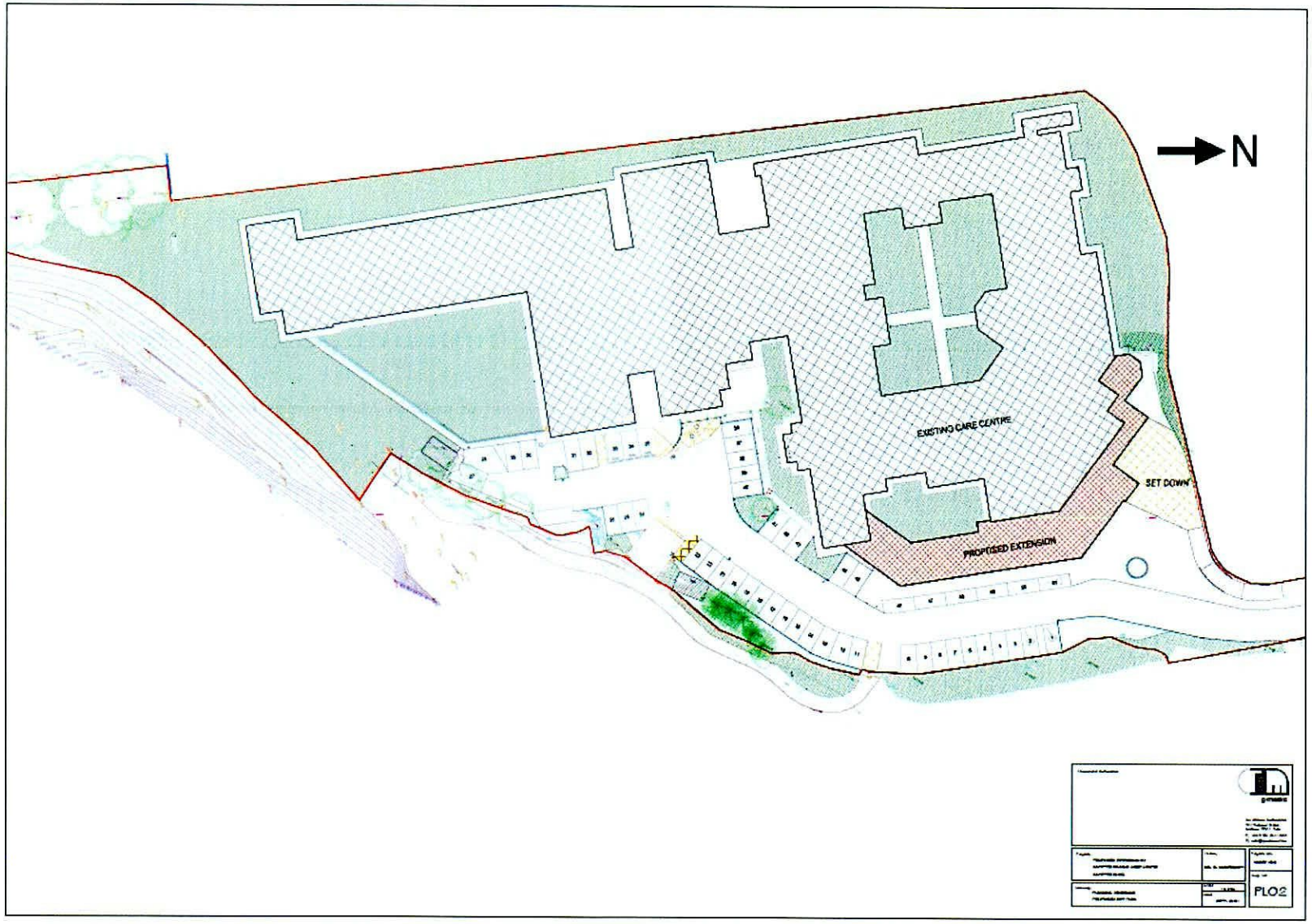


Appendix 2 Bat Roost Trigger Results

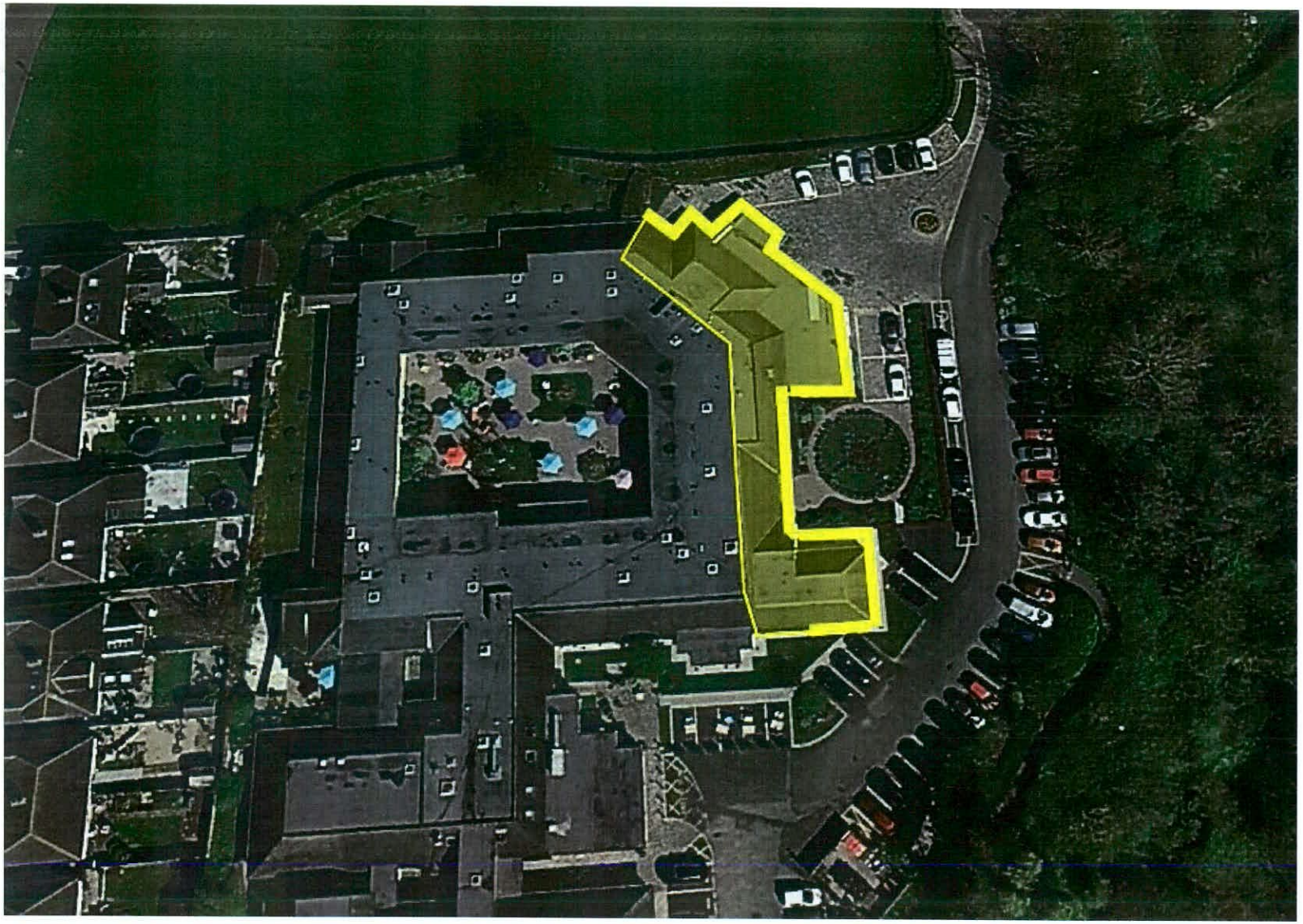
BAT ROOST TRIGGER INDEX (TI): RESULTS			Swift Ecology
Project:	Kiltipper Woods Care Home	Evidence:	None
Code:	0	Constraints:	None
Date:	22nd February 2022	Surveyor:	Clive Mellon

TRIGGER INDICES	CATEGORY	TI VALUE
A) Location, habitat and environmental context of structure		
T1: General location	Suburban or intensive farmland	0.67
T2: Foraging opportunities within 250 m	Good	1
T3: Foraging opportunities within 5 km	Moderate	0.67
T4: Commuting opportunities	Good	1
T5: Cover in vicinity of structure	Moderate	0.67
T6: External lighting in vicinity of structure	Moderate level	0.33
T7: Number and character of nearby buildings	None or all modern	0.33
T8: Structure/building exposure	Low	1
B) Exterior features and characteristics of structure or building		
T9: Structure/building age	Less than 50 years	0.33
T10: Size of Building	Intermediate size	0.67
T11: Main wall construction material	Modern	0.33
T12: Condition of wall/roof pointing/render	Tightly sealed	0.33
T13: Condition of lintel/door frame features	Tightly sealed	0.33
T14: Condition of eaves/soffits/bargeboards	Some gaps or cracks noted	0.67
T15: Condition of weatherboarding/cladding	No boarding present	0.2
T16: Condition of lead flashing	Some lifting of flashing	0.67
T17: Roofing material	Modern tiling or mixture	0.67
T18: Bat access potential	Several small gaps noted	0.67
C) Interior features and characteristics of structure or building		
T19: Character of roof void/roof space	Small low void or open roof space	0.33
T20: Character and condition of roof supports	Tightly sealed modern timbers/supports	0.33
T21: Presence and extent of cobwebbing	Some cobwebs	0.67
T22: Presence and condition of roof lining	Lined with few gaps or mixture	0.67
T23: Light levels in roof void/space	Intermediate	0.67
T24: Protection from weather/wind	Intermediate protection	0.67
T25: Temperature regime	Intermediate	0.67
T26: Level of (human, animal) disturbance	Moderate	0.67
T27: Flight Space	Moderate	0.67
T28: Flying Access (Horseshoe bats)	None	0.33
TRIGGER INDEX SCORE =	**0.53**	
BAT ROOST SUITABILITY =	**LOW**	

Appendix 3 Plan of proposed extension area



Appendix 4 Area of building surveyed



Appendix 5 Photographic Record of Potential Roost features

Photo 1 Potential roost features 1 & 2

Photo 2 Potential roost feature 3

Photo 3 Potential roost feature 4

Appendix 6 Location of potential roost features