SCOTT CAWLEY

An Origin Enterprises Company

Bat Derogation Licence Application 2026 – Supplementary Report

Scoil Mhuire Mount Sackville

prepared for the National Parks and Wildlife Services

on behalf of The Department of Education

Scott Cawley, College House, 71 – 73 Rock Road, Blackrock, Co. Dublin, A94 F9X9, Ireland

[redacted]

Document Control

Project Title	Scoil Mhuire Mount Sackville		**Project No.**	260100
Document Title	Bat Derogation Licence Application 2026 Supplementary Report		**Status**	Final
Revision	**Issue Date**	**Author**	**Reviewed By**	**Approved By**
I01	28th August 2026	WD	CC	AS

© Copyright Scott Cawley Limited.

This report has been prepared by Scott Cawley Ltd. for the sole use of our client (the 'Client') and, unless otherwise agreed in writing by Scott Cawley Ltd., no other party may use, make use of or rely on the contents of this report. No liability is accepted by Scott Cawley Ltd. for any use of this report, other than the purpose for which it was prepared.

This report has been prepared by Scott Cawley Ltd. in accordance with the particular instructions and requirements of our agreement with the Client, the project's budgetary and time constraints and in line with best industry standards. The methodology adopted and the sources of information used by Scott Cawley Ltd. in providing its services are outlined in this report. The scope of this report and the services are defined by these circumstances.

Where the conclusions and recommendations contained within this document are based upon information provided by others than Scott Cawley Ltd., no liability is accepted on the validity or accuracy of that information. It is assumed that all relevant information has been provided by those parties from whom it has been requested and that the information is true and accurate. No independent verification of any documentation or information supplied by others has been made.

The conclusions presented in this report represent Scott Cawley Ltd.'s best professional judgement based on review of site conditions observed during the site visit (if applicable) and the relevant information available at the time of writing. Scott Cawley Ltd. has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy.

Table of Contents

1 Introduction 1
1.1 Background 1
1.2 Overview of Works 3
1.3 Author Statement 4
1.4 Proposed Personnel for Inclusion on Derogation Licence 5
2 Legal Protection and Conservation of Bats in Ireland 5
3 Guidance and Approach 7
4 Evidence to Support the Derogation Tests 7
4.1 Test 1 – Reason for seeking derogation 7
4.2 Test 2 – There is no Satisfactory Alternative 8
4.3 Test 3 – Favourable Conservation status 9
5 Methodology 10
5.1 Desk Study 10
5.2 Pro bono Advanced Licence Bat Survey Techniques 2024-2025 10
5.3 Field Surveys 10
5.4 Limitations 14
5.5 Habitat Description 15
6 Results 15
6.1 Desk study 15
6.2 Building Inspection Survey 15
6.3 Bat Emergence Survey 18
6.4 Evaluation of Results 20
7 Description of the works 21
8 Purpose and Justification of Works 21
9 Measures to Avoid, Reduce and Offset any Negative Effects on Bats and Their Roosts 22
9.1 Supervision of Proposed Remedial Works 23
9.2 Provision/Creation of a dedicated bat loft 23
9.3 Reporting to the NPWS 26
10 Post-Construction Monitoring 26
11 Conclusions 26

1 Introduction

1.1 Background

1 This Bat Mitigation Strategy Report accompanies an application to the National Parks and Wildlife Service (NPWS) for a Derogation Licence in respect of proposed works to a roof to eliminate a contamination risk due to the presence of a bat roost at a Primary School in Mount Sackville, Tower Rd., Chapelizod, Co. Dublin in line with the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended). See figure 1 for site location.

2 The Soprano Pipistrelle *Pipistrellus pygmaeus* bat roost, which has been known from at least 2019 and has been subject to multiple surveys from NPWS, Scott Cawley Ltd., and a number of other consultancies including DNV hired by ESB and Broadband Ireland. The site has been used for educational purposes including bat handling.

3 The bat roost is, and has been, confined to a modular building of the school comprising of the staff canteen, a bathroom, a storage room for the hot lunch carts, a hallway, and several office rooms (see Plate 1). Bats have been found throughout the building interior, presumed to enter the interior through ingress points between the flat roof of the modular building and the exterior cavity wall, and flying via the connecting hallways to other parts of the school.

4 Data gathered in previous years in addition to surveys carried out in 2026 for this report indicate a sizeable roost, with a current roost size of *c.* 524 bats.

5 Increasingly, the bat roost and ingress of bats, droppings and urine, has become a health & safety issue at the school, prompting the school and the Department of Education to seek a derogation on that basis and to remove the contamination risk to the staff and students at the school.

6 This report details the proposed mitigation strategy for bats, as required. The success of the proposed mitigation strategy will be measured by the elimination of the contamination risk, avoidance of mortality of any bat species, the minimisation of disturbance to bat roosts, and the provision of a purpose-built alternative roost on site.

Figure 1 Site Location and Bat Roost Location in the Context of the Surrounding Environs

Plates 1&2 – Modular Building with Flat Roof Where Bat Roost is Located (left) and Disused Water Tower in relation to modular building (Right)

1.2 Overview of Works

7 Scott Cawley Ltd. were engaged by the Department of Education in July 2026 to prepare a bat mitigation strategy and a derogation license application to address the health & safety issues arising from the contamination risk associated with the bat roost.

8 The need for works arises from the presence of the maternity roost within the existing building and the associated contamination risk posed to the internal spaces, the staff and the students. Over the years bat droppings and urine have accumulated in the flat roof and ceiling structure above the canteen and hallway. This has resulted in an ongoing hygiene, health and safety, and maintenance problem. This issue cannot be effectively addressed or managed with the current roost occupation in this location.

9 The purpose of the proposed works is therefore not development led, but rather led by the need to address the health and safety concern to the public. In order to achieve this, while also intending to maintain the favourable status of the bat roost, an approach has been designed that involves stripping the flat roof and sealing the school from future ingress, and providing a dedicated bat roost loft on site in close proximity to the existing roost location. the proposed loft aims to replicate, and where possible enhance, the conditions of the existing roost. This purpose built loft, designed in collaboration with architects from KSNPM and the Department of Education, aims to provide long term and secure conditions for a maternity roost.

10 Following collaboration with the Department and the Architects, a preferred concept was designed for the dedicated bat loft for which a disused water tower directly adjacent to the roost was chosen (see Plate 2). The water tower building provided an ideal opportunity to purposefully design an alternative roosting location that eliminates the chance of recurrence of contamination and ingress of the school building and provide optimum conditions for the roosting bats.

11 The Derogation application accompanying this strategy report is grounded in the requirement to ensure the health and safety of the public and the integrity of the school building, while retaining a favourable roosting habitat for the established Soprano Pipistrelle colony.

1.3 Author Statement

12 Scott Cawley Ltd., staff abide by the Code of Professional Conduct/Code of Practice for the Chartered Institute of Ecology and Environmental Management (CIEEM). The company holds individual Regulation 54 Derogations and Wildlife Act licenses for the following activities:

a) Roost disturbance and entry into a known roost.

b) To use an endoscope to explore inaccessible locations in structures and trees including roosts.

c) To photograph bats within roosts for scientific and research purposes (Country-wide).

13 The individual licenses references are as follows:

- DER/BAT 2026-100 (amended III) – Colm Clarke
- DER/BAT 2026-101 – Andrew Speer
- DER/BAT 2026-103 – Wayne Daly
- DER/BAT 2026-105 – Tim Ryle
- DER/BAT 2026-106 – Simon O'Carroll
- DER/BAT 1016-107 – Jamie Dempsey
- DER/BAT 2026-110 – Gregor Wood
- DER/BAT 2026-112 – Amir Glick
- DER/BAT 2026-114 – Caitriona Fenton
-

14 The supplementary report has been prepared by Wayne Daly ACIEEM and reviewed for quality assurance purposes by Colm Clarke MCIEEM, and signed off by Andrew Speer MCIEEM of Scott Cawey Ltd.

15 Wayne Daly is a Senior Ecologist with over 5 years' experience of professional ecological practice. He has extensive experience in bat survey design, roost assessment, acoustic monitoring, and mitigation planning across a wide range of development and conservation contexts. Wayne is proficient in conducting preliminary roost assessments, emergence and re-entry surveys, tree roost inspections, activity transects, and remote acoustic monitoring, and is fully experienced in working under NPWS bat licences to ensure legally compliant and species-appropriate methodologies. Wayne has experience working on bat related impact assessments—including EcIAs, NIS/AA Screening, and EIAR chapters – as well as extensive experience as Ecological Clerk of Works (ECoW) relating to bats such as bat relocation, construction-phase supervision and timing protocols. His is underpinned by current NPWS and Bat Conservation Trust best-practice guidance, and he is skilled at communicating ecological constraints and solutions clearly to project teams, contractors, and clients.

16 Colm Clarke is an Associate Director with Scott Cawley Ltd., with over 11 years' experience in ecological consultancy. He holds an honours degree in Natural Sciences and a Master's in Biodiversity and Conservation from Trinity College Dublin, and is a full member of CIEEM, a member of Bat Conservation Ireland, and Chairperson of the Dublin Bat Group. As Scott Cawley's lead bat ecologist, he leads and oversees the technical standards for bat surveys and assessments. He regularly provides specialist advice on protected species, prepares Regulation 54 derogation applications for bats, oversees compliance with and discharge of Regulation 54 derogation obligations, and is licensed to undertake bat roost inspections and capture surveys. Colm has undertaken third party review of bat mitigation strategies including on offshore renewable energy projects.

17 Andrew Speer has over 20 years' experience in ecological consultancy, providing technical leadership and quality assurance for Ecological Impact Assessments, Appropriate Assessment, Natura Impact Reports, protected species licensing and biodiversity strategies across a wide range of complex projects. A recognised expert in transport infrastructure ecology, he has led multidisciplinary ecological assessments

and mitigation design through all project phases, from feasibility and statutory approvals to construction and implementation. Andrew is highly experienced in managing large-scale ecological survey programmes, peer reviewing EcIA and AA documentation, providing expert witness services, supporting judicial review and licensing processes, and overseeing delivery of ecological mitigation as an Ecological Clerk of Works. He also plays a key role in developing professional standards, delivering specialist training, and advancing Biodiversity Net Gain and No Net Loss approaches for public and private sector clients.

1.4 Proposed Personnel for Inclusion on Derogation Licence

18 Outlined below are the personnel who will administer and implement the supervision and implementation of the proposed bat mitigation strategy under the auspices of the derogation that is being applied for, ensuring its full implementation including having full responsibility for compliance with the mitigation strategy and/or conditions of the derogation as issued. The Department of Education will have overall responsibility for the management of the derogation. Scott Cawley Ltd., will act as the scientific agent identified on the derogation and will oversee the works associated with the roof modifications as described in Section 1.2. As such, should the derogation be granted by the NPWS, there may be the need for an update/change to the personnel listed/associated with this derogation during its lifetime. Any changes in personnel associated with this derogation will be notified by the Department of Education in writing to the NPWS for amendment.

19 The persons identified below, as employees of Scott Cawley Ltd., abide by the Code of Professional Conduct/Code of Practice of CIEEM. Scott Cawley Ltd., operate under an annual NPWS issued licence to handle and disturb bats (all bat species with the exception of the Lesser Horseshoe Bat) in support of surveys.

1.4.1 Proposed Lead Bat Ecologist – Wayne Daly

20 Wayne will lead the Scott Cawley Ltd., bat monitoring program for the duration of the licence. He will be assisted by the qualified and experienced personnel listed below who are named on Scott Cawley's annual Regulation derogations for disturbance of bats and their roosts:

- Colm Clarke – DER/BAT 2026-100
- Andrew Speer – DER/BAT 2026-101
- Tim Ryle – DER/BAT 2026-105
- Simon O'Carroll – DER/BAT 2026-106
- Jamie Dempsey – DER/BAT 2026-107
- Gregor Wood – DER/BAT 2026-110
- Amir Glick– DER/BAT 2026-112
- Caitriona Fenton - – DER/BAT 2026-114

2 Legal Protection and Conservation of Bats in Ireland

21 There are nine species of bat known to breed in Ireland, while two other species have been recorded on a single occasion (Table 1). All of Ireland's nine resident bat species are listed as "*Least Concern*" in the *Ireland Red List No. 12: Terrestrial Mammals*[1].

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

Table 1 Bat species in Ireland: status and distribution

Species	Status	Distribution
Common pipistrelle *Pipistrellus pipistrellus*	Resident	Widespread
Soprano pipistrelle *Pipistrellus pygmaeus*	Resident	Widespread
Nathusius' pipistrelle *Pipistrellus nathusii*	Resident	Widespread
Leisler's bat *Nyctalus leisleri*	Resident	Widespread
Brown long-eared bat *Plecotus auritus*	Resident	Widespread
Whiskered bat *Myotis mystacinus*	Resident	Widespread
Natterer's bat *Myotis nattereri*	Resident	Widespread
Daubenton's bat *Myotis daubentonii*	Resident	Widespread
Lesser horseshoe bat *Rhinolophus hipposideros*	Resident	Restricted to the western seaboard
Brandt's bat *Myotis brandtii*	Vagrant	Single confirmed record from Co. Wicklow
Greater horseshoe bat *Rhinolophus ferrumequinum*	Vagrant	Single confirmed record from Co. Wexford

22 All bat species and their roost sites are strictly protected under both European and Irish legislation including:

- Wildlife Act 1976 and Wildlife (Amendment) Act, 2000;
- *European Communities (Birds and Natural Habitats) Regulations, 2011*; and
- *Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna 1992 (Council Directive 92/43/EEC)*.

23 It is an offence under Section 23 of the *Wildlife Act 1976 (as amended)* and under Section 51 of the *European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)* to kill a bat, to interfere with, damage or destroy the breeding or resting place of a bat species, or to deliberately disturb bats, particularly during their periods of breeding, rearing, hibernation and migration. Under the Regulations it is not necessary for damage or destruction of bats' breeding sites or resting places to be deliberate for an offence to occur. Given that unintentional damage or destruction of bats' breeding sites or resting places gives rise to an offence under the legislation, there is an onus of due diligence on property owners and anyone proposing to carry out works, to avoid any such damage or destruction.

24 As a signatory to the EUROBATS Agreement (Agreement on the Conservation of Populations of European Bats, 1994)[2], Ireland is required to protect their habitats and important feeding areas from damage or

[2] https://www.eurobats.org/about_eurobats/introduction_to_agreement accessed February 2026

disturbance. All Irish bat species are listed in Appendix B of the Bern Convention (1979), as species requiring protection.

3 Guidance and Approach

25 The guidance that has been referred to during the preparation of the application for the derogation licence has included:

- Guidelines for Ecological Impact Assessment in the UK and Ireland version 1.3 (CIEEM 2024)
- Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes. (National Roads Authority (NRA) 2006);
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA 2008a);
- Environmental Impact Assessment of National Road Schemes – A Practical Guide. National Roads Authority (NRA 2008b);
- Guidelines for Assessment of Ecological Impacts of National Roads Schemes (NRA 2009);
- Bat Surveys for Professional Ecologists: Good Practice Guidelines. The Bat Conservation Trust. Collins, J., *et al.* (2023).
- The Bat Workers' Manual. 3rd Edition. (Mitchell-Jones and McLeish 2004);
- Bat Mitigation Guidelines for Ireland V2. Irish Wildlife Manuals No. 134 (Marnell et al., 2022);
- The Irish Bat Monitoring Programme 2015 – 2017. Irish Wildlife Manuals 103. (Aughney *et al*., 2018);
- CIEEM (2023). UK Bat Mitigation Guidelines: A Guide to Impact Assessment, Mitigation and Compensation for Developments Affecting Bats.
- Applications for Regulation 54 Derogations for Annex IV species (July 2025) NPWS
- The Habitats Directive; S.I. No. 477/2011 – European Communities (Birds and Natural Habitats) Regulations 2011, as amended (hereafter referred to as the Birds and Habitats Regulations);
- Wildlife Acts 1976 (as amended);
- National Biodiversity Plan 2023-2030. Department of Housing, Local Government and Heritage (2024).

4 Evidence to Support the Derogation Tests

26 Scott Cawley Ltd., are submitting this application under Regulation 54 of the European Communities (Birds and Habitats) Regulations 2011 (S.I. 477 of 2011) for a derogation licence from complying with the requirements of the provisions of Regulations 51, 52 and 53 of the same Regulations.

4.1 Test 1 – Reason for seeking derogation

27 The derogation is being sought on the basis that the bat roost within the building's roof presents a public health risk, with ongoing contamination of the occupied space beneath the roof, namely the canteen, hallway, and bathrooms. Eliminating the contamination risk required the removal of the existing bat roost features as they are, constituting damage to the breeding and resting site. These measures will result in the loss of the roost site, and have the potential to result in the mortality and/or disturbance of bats or their roosts, which would be in contravention of the *European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)* if undertaken in the absence of a derogation licence.

28 A derogation is being sought under Regulation 54(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."

29 The necessity to strip the roof as it is currently and replace it with a purpose built bat loft/cavity is detailed as follows:

- In its current state the flat roof allows direct ingress of bat droppings and urine, as well as bats themselves into the occupied space, including food-related and sanitary areas;
- The contamination risk is partially continuous with the school year and with over summer events at the school and cannot currently be mitigated for through any operational or cleaning control;
- There is no allowance for sealing of the roof or occupied space or isolation of the roost without disturbance to the roost or destruction of the breeding site.
- The School is statutorily obliged to provide a hygienic and safe environment for its users.

4.2 Test 2 – There is no Satisfactory Alternative

30 In a Do-Nothing Scenario, if the school building and flat roof were retained in the current state, the bat roost would continue to present an unacceptable health and safety contamination risk. The Absence of a satisfactory alternative is explored as a matrix in Table 2. It is objectively demonstrated that there is no satisfactory alternative to the proposal which can deliver the project objective of eliminating the contamination risk whilst avoiding the need for derogation.

Table 2 Matrix of Alternatives Considered

Alternative	Feasibility	Meets Project Objective?	Requires Derogation?	Satisfactory solution?
Do-nothing alternative	This alternative involves no actions.	No as this does not address the Health and safety contamination risk	No	No
Alternative design 1: Retain existing roost where it is and internally seal the building	This alternative is not feasible as it cannot be delivered without disturbance and risk of injury or mortality to the bats. The exact location of the bats within the building is unclear and the building may contain multiple crevices and gaps to hide bats. it is unknown whether any bats remain over winter for hibernation, but it can be deemed likely. The building cannot be reliably sealed without removing roost supporting	No as it is not a feasible alternative.	Yes	No

	features. Internal sealing would require ongoing invasive works and would not necessarily prevent contamination risk.			
Alternative 3: Exclude bats entirely from the building without providing replacement roost habitat	Physical exclusion could be implemented; however this would result in disturbance to a known roosting place, and would contribute to the loss of a large maternity roost with no on site alternative.	No. Exclusion would remove contamination risk but would not meet legal obligations and would also risk entombing any remaining bats inside.	Yes	No
Stripping back of current roof, sealing the building, and provision of dedicated maternity roost loft adjacent to current roost site.	This alternative can be accommodated within lands under the control of the applicant	Yes. This design solution will eliminate the contamination health and safety risk and provide alternative roosting opportunity for the bat colony.	Yes	Yes

4.3 Test 3 – Favourable Conservation status

31 The application relates to specific impacts to:

- School Modular Building and Flat Roof – Known Soprano Pipistrelle roost with *c.* 524 individuals as of July 2026

32 This report prescribed a mitigation strategy with measures designed to avoid and minimise disturbance to bats, and the provision of an alternative roosting site, a dedicated maternity roost bat loft, during and after construction, as well as provision of temporary rocket boxes, to which we shall move any hibernating bats encountered during the roof stripping process.

Population Class Size Assessment

33 It is confirmed, as of July 2026, that the school building supports a large maternity roost population of bats (*c.* 524 individuals) which were recorded by Scott Cawley on during an emergence survey on the 2nd of July 2026.

34 The bat population recorded at the school is a significant local roost. Given that Pipistrelle bats typically form multiple roosts within their home range[3], and given the suitability of the surrounding environs, including Phoenix park and its associated mature trees and wooded areas, and the riparian valley of the

[3] Schofield, H. & Scott, D. (2014). *Bat Mitigation Guidelines for Ireland*. Irish Wildlife Manuals No. 80. NPWS

nearby Liffey, it is likely that the roost forms part of a wider bat population dispersed across the wider suburban and parkland matrix.

35 In terms of national conservation status, soprano pipistrelle are classed as Least Concern. For clarity, this is the Irish Red List status, not the global IUCN Assessments. The latest Article 17 report concludes that the conservation status of this species are assessed as Favourable[4].

36 Given:

- the large roost size recorded within the school building
- the availability of extensive foraging habitat within the surrounding landscape
- the conservation status of the species concerned (as above), and
- the proven effectiveness of the mitigation strategy and contamination control measures outlined in Section 4 of this report,

37 it is concluded that the proposed works will not be detrimental to the maintenance of soprano pipistrelle, at a favourable conservation status in their natural range.

5 Methodology

5.1 Desk Study

38 A desk study was undertaken to compile records of Soprano Pipistrelle bats within 2km of the proposed development site, using the National Biodiversity Data Centre (NBDC) database[5] and the Bat Conservation Ireland database. The results of surveys conducted by Scott Cawley Ltd., for previous training on the same campus were also reviewed for records of bat species on the proposed development site.

5.2 Pro bono Advanced Licence Bat Survey Techniques 2024-2025

39 Scott Cawley Ltd. conducted a series of bat trapping surveys at Scoil Mhuire in 2024 and 2025 (20/08/2024, and 28/04/2025). The surveys were scoped and completed as part of Scott Cawley's in house bat handling training, on foot of information obtained from the NPWS on roosts in the Dublin Area. Work was completed pro bono and in agreement with Scoil Mhuire. Data generated from the surveys was provided to the school to be utilised at their discretion in future.

40 The surveys comprised capture of bats by hand nets at pre-identified emergence points, in addition to the deployment of infrared cameras (Canon XA60) to document emergences and timings. All Bat handling activities followed standard NPWS bat-handling protocols. IR cameras deployed corroborated hand capture data and quantified emergence rates. All procedures were undertaken in accordance with methodologies set out in NPWS bat-handling license application template and adhered to best-practice guidance.

5.3 Field Surveys

5.3.1 Bat handling training 2024

41 A bat trapping and handling training was carried out on the 20th of April 2024 as internal training for Scott Cawley Ltd. headed by Colm Clarke of Scott Cawley. The training included the use of two night vision aid (NVA) Infrared Cameras to record emergences. The IR cameras were set up and the use of hand nets outside of exit points to capture emerging bats. the bats had their physical characteristics measured and recorded. The characteristics measured were:

[4] NPWS (2023) Article 17 report Volume 3 Species Assessments

[5] National Biodiversity Data Centre Database of records. Available online at www.biodiversityireland.ie

- Species
- Weight (g)
- Sex
- Age (Adult or Juvenile)
- Forearm length (mm)

42 The two no. infrared cameras deployed between ~20:40 and ~22:00. One west of roost and two initially west of roost but moved east of roost at ~21:00 following first emergence of bats. See figure below with mark ups. Numbers relate to camera locations. Yellow fill black outline relates to camera viewsheds. Red line relates to area bats are roosting within, and red arrows are observations of emergence. Camera 1 captures PRF 2 while camera 2 captures PRF 1.

Figure 2 NVA set up for 2024 Bat handling training

5.3.2 Bat Handling training 2025

43 A bat trapping and handling training was carried out again on the 28th April 2025 as internal training for Scott Cawley Ltd. headed by Colm Clarke of Scott Cawley. No IR cameras were used for the 2025 training. Hand nets were used outside of exit points to capture emerging bats. the bats had their physical characteristics measured and recorded. The characteristics measured were:

- Species
- Weight (g)
- Sex
- Age (Adult or Juvenile)
- Forearm length (mm)

5.3.3 Building Inspections 2026

44 A ground-level assessment of the building, internally and externally, carried out to assess and record the areas where bats can exit or enter the roost, and to determine the extent of the contamination and ingress points within the building, was based on guidelines (see Table 3) in *Bat Surveys for Professional Ecologists:*

Good Practice Guidelines[6] and included inspections of buildings and structures for potential roost features (PRFs), and for evidence of bats such as:

- Bat droppings (these will accumulate under an established roost or under access points);
- Insect remains (under feeding perches);
- Oil (from fur) and urine stains;
- Scratch marks;
- Pupae of bat parasites such as *Nycteribia kolenatii*; and;
- Bat corpses.

45 An endoscope (Teslong TF600) was used to inspect any crevices, or similar features that were accessible from ground level. Inaccessible features were examined from ground level with the use of binoculars. This was undertaken on 2nd July 2022, by Scott Cawley Ltd.

Table 3 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. (from Collins (2023)[6])

Suitability	Description	
	Roosting habitats in structures	**Potential flight-paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (*i.e.* unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
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	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens.

[6] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

	roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape which is likely to be used regularly by foraging bats; such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.

5.3.4 Roost Presence/Absence Surveys 2026

46 A single dusk emergence surveys was undertaken with the objective of determining the exact count of bats seen emerging from the roost, and to record each point of exit. This emergence survey was carried out on the 2nd of July 2026 (Table 3). The bat emergence survey was completed by three no. surveyors. Bat surveys were conducted using direct observation, with the aid of a handheld ultrasound bat detector (Batlogger M1 and M2) to record the calls of echolocating bats. Five no. infrared camera (Canon XA60) were also used to aid in determining the exact exit points and to help count the total number of bats emerging. Echolocation recordings were analysed using Elekon BatExplorer software.

47 The IR cameras were set up with three (camera 1,camera 2, and Camera 3) capturing the southwestern and southeastern sides of the building and camera 4 and camera 5 capturing the northern and eastern side of the building. camera 5 was placed in such a way that it captured the side on view of the flat roof overhang while camera 4 was positioned face on to the wall, capturing any bats that may emerge from the eastern wall as well. (See Figure 3)

Figure 3 Night Vision Aid IR camera (NVAs) locations during emergence survey

48

Table 4 Details of bat surveys undertaken at Scoil Mhuire Mount Sackville

Date	Survey Type	Survey Times (Sunset/Sunrise)	Weather	Temperature (°C)
20th August 2024	Bat Handling Training – Capture by hand net	20:20 – 22:00	20% Cloud cover, dry with light breeze	15^0C
28th April 2025	Bat Handling Training – Capture by hand net	20:15 – 22:00	50% Cloud cover, dry with gentle breeze	4^0C
2nd July 2026	Dusk Emergence Survey	21:30 – 00:00	10% cloud cover, dry with slight westerly breeze	18°C

5.4 Limitations

49 It was not possible to fully inspect the internal space where the bats are roosting to determine exactly where they are without adoption of destructive or methods due to the build materials and design of the construction however this was offset by the completion of a bat emergence survey which was sufficiently resourced to provide full coverage of the buildings and determine where the exit points are and to accurately count the bats.

50 Although only a single dedicated emergence survey was conducted in 2026, this was supplemented with information gathered in 2024 and 2025 that identified that the roost is of Soprano Pipistrelle bats and is

likely to be a maternity roost. Use of NVAs means that numbers of bats can and have been verified by review of video footage.

51 The bat handling surveys from 2024 and 2025 were not dedicated emergence surveys. IR cameras do not cover all exits and footage does not capture the entire emergence period. As such numbers recorded for these dates do not reflect the maximum roost size.

52 There were no other limitations associated with surveys undertaken.

5.5 Habitat Description

53 The site is semi-urban in nature, located on the edge of Phoenix park on the Chapelizod road. this area is characterized by a mix of residential, educational, and recreational land use. The site is located on a large plot with a nursing home to the direct east, with a mix of amenity land, treelines, planted beds, and hardstanding carparks and driveways. The directly adjacent phoenix park is characterized by a scattered trees and parklands habitat with plenty of mature trees, ponds, and grasslands. The River Liffey Valley is situated directly across the road to the south of the site, with a mixture of mix broadleaf riparian woodland and private residences.

6 Results

6.1 Desk study

54 The NBDC holds the following latest records for Soprano Pipistrelle bats within approximately 2km of the proposed development:

- Soprano Pipistrelle *Pipistrellus pygmaeus* – three records from the National Bat Database of Ireland. The most recent record from the O13D grid square, immediately East of the proposed development, recorded in 2021.

6.2 Building Inspection Survey

55 In July 2026, the interior and exterior of the building were inspected to assess for evidence of bats, ingress points, external emergence/re-entry points, and the extent of contamination.

56 The external inspection recorded copious amounts of bat droppings flecked on the walls and windows underneath the entry areas (SEE PLATE 3). A number of entry/exit points were noted, and those areas recorded in previous surveys (DNV, 2025) were confirmed and noted. (SEE PLATE 4). Additional entry points noted were small cracks between the exterior cavity wall and the flat roof which overlays it.

57 PRFs were noted and marked as follows:

- PRF 1 – gaps between the exterior cavity wall on the northeast face and the flat roof
- PRF 2 - gaps between the exterior cavity wall and the pitched section of the flat roof along the eastern wall. Includes the description of PRF B from DNV report.
- PRF 3 – confirmation of PRF identified previously (noted as PRF A in DNV report) - This feature is found beneath the veranda on the southwestern facing wall of the school canteen. The entrance to this PRF occurs between the steel purlin of the veranda and the cavity block wall of the school canteen.
- PRF 4 - confirmation of PRF identified previously (noted as PRF C in DNV report) - This feature includes a number of gaps beneath the veranda also, where service works have caused damage to the envelope of the building.

  PRF 5 - confirmation of PRF identified previously (noted as PRF D in DNV report) This PRF occurs between the roof of the veranda and the wall of the school canteen. There appears to be a large hollow within this area of the wall.

58 The internal inspection noted dead bat specimens on the floor of an office room, the floor of the bathroom, and three dead bats in one of the toilets (PLATE 5) The interior of the canteen room was inspected, and a strong odour of bat urine was noted pervading the room. Bat droppings were noted on desks and furniture in the principal's office.

59 Ingress points inside the building include gaps between the exterior cavity walls and the flat. It is obvious from the evidence that the bats are gaining access in multiple areas and different rooms within the occupied building. it was noted that in other sections of the building, water damage in the roof caused damage, creating holes and cracks in the plaster ceiling.

Plates 3&4&5 – Bat evidence in the form of droppings flecked onto window below roost entry point on northern side of building (top left) dead bats found in the bathroom on the northern side of the flat roof building (top right). Bat entry point (PRF1) above windows as shown between cavity block wall and flat roof (bottom)

Plates 6. Previously identified (and confirmed in 2026) Entry and Exit points

6.3 Bat Emergence Survey

60 The following section presents the results of the bat emergence survey carried out on 20th of August 2024, 28th of April 2025, and 2nd of July 2026.

6.3.1 Survey Results

61 Table 5 below describes the weather conditions during the emergence surveys carried out in 2024, 2025, and 2026.

Table 5 Survey Weather Conditions

Date	Temperature (C^0)	Rain	Wind	Cloud cover	Sunset Time	Survey Start
02/07/2026	18	Dry	16Km/h W	Clear	21:54	21:25
28/04/2025	4	Dry	8.7Km/h	Clear	20:39	20:10
20/08/2024	15	Dry	14Km/h	Clear	20:42	20:15

6.3.1.1 2024 Bat Handling Training Survey

62 A total of 7 Soprano Pipistrelle bats were caught via a hand net for the purposes of bat handling training on the 20th of August 2024. These bats were caught emerging from the northwest face of the building (PRF1). The bats were captured between 20:55 and 21:15. See Table 6 below for capture results.

Table 6 Bat Handling Training Hand Net Capture Results

Species	Sex	Forearm Length (mm)	Date of Capture	Time of capture
Pipistrellus pygmaeus	F	31.5	20/08/2024	20:55
Pipistrellus pygmaeus	M	34.5	20/08/2024	20:57
Pipistrellus pygmaeus	F	30.5	20/08/2024	21:00
Pipistrellus pygmaeus	M	29.6	20/08/2024	21:05
Pipistrellus pygmaeus	F	32.8	20/08/2024	21:10
Pipistrellus pygmaeus	F	31	20/08/2024	21:15
Pipistrellus pygmaeus	F	29.5	20/08/2024	21:15

63 In addition to the seven Soprano Pipistrelle bats caught in hand nets, 133 were recorded emerging from PRF 1 between 21:00 and 22:00.

64 A total of 21 Soprano Pipistrelle bats were recorded emerging from PRF 2. The first bat emerged at 20:48 and the last bat recorded emerged at 21:47.

6.3.1.2 2025 Bat Handling Training Survey

65 A total of 10 Soprano Pipistrelle bats were caught via a hand net for the purpose of bat handling training on the 28th of April 2025. These bats were caught emerging from the northwest face of the building (PRF1). These bats were captured between 20:40 and 21:15. See table X below for 2025 capture results

Species	Sex	Forearm Length (mm)	Date of Capture	Time of capture*
Pipistrellus pygmaeus	F	29	28/04/2025	-
Pipistrellus pygmaeus	F	31	28/04/2025	-

Pipistrellus pygmaeus	F	30	28/04/2025	-
Pipistrellus pygmaeus	F	31	28/04/2025	-
Pipistrellus pygmaeus	F	33	28/04/2025	-
Pipistrellus pygmaeus	F	31.5	28/04/2025	-
Pipistrellus pygmaeus	F	31	28/04/2025	-
Pipistrellus pygmaeus	F	31.8	28/04/2025	-
Pipistrellus pygmaeus	F	31.9	28/04/2025	-
Pipistrellus pygmaeus	F	30.7	28/04/2025	-

*data not available

6.3.1.3 2026 Emergence Survey

66 A total of 462 Soprano Pipistrelle bats were recorded emerging from PRF 1 during the emergence survey on the 2nd of July. The first bat emerged at 21:56, while the last bat emerged at 22:55. The emerging bats flew either directly northeast towards the park, southeast, or rounded the corner and flew towards the back of the school and to the treeline along Tower Rd.

67 From 23:15 onwards the bats began to swarm outside of the building, with many landing on the wall and re-entering the cavity. A small number would then re-emerge. This swarming continued until after they survey ended and was continuing after midnight when the surveyors were leaving.

68 A total of 45 Soprano Pipistrelle bats flew from PRF 2 along the pitched edge of the roof. The first bat emerged at 22:00. The last bat that emerged from PRF2 emerged at 22:49. All bats that emerged from PRF 2 flew directly towards the treeline and Tower Rd. towards the southeast.

69 A total of 17 Soprano Pipistrelle bats emerged from PRF 3 beneath the canopy. The first bat emerged at 21:55. The last bat emerged at 22:37.

70 No bats emerged from PRF 4 or 5.

71 Overall a total of *c.* 524 Soprano Pipistrelle bats were recorded emerging from the flat roof building including the canteen, hallway, and bathroom.

6.4 Evaluation of Results

72 The evaluation of the site is informed by the combined results of bat surveys undertaken across multiple years. These surveys (as of 2026) confirm that the building supports a sizeable maternity roost of *c.* 524 Soprano Pipistrelle bats.

73 The building itself is constructed in such a way, and due to historic works on the building, that there are multiple entry points and opportunities for bats to enter and settle in various sections. There are cracks

and gaps between the exterior cavity wall and the flat roof slab and accumulate in great numbers. On the interior side of the wall there are likewise gaps and cracks which allow the bats to enter the inside rooms and hallways. The building itself is situated close to several green spaces that provide important foraging and commuting routes (Phoenix Park and the Liffey Valley). Based on the large roost size, the level of recorded activity, the recurrent use, and the significant contribution of the roost complex to the wider bat population, the roost is assessed as being of high local importance for the bat population in the surrounding area.

7 Description of the works

74 For the proposed roof works, it is envisaged that the existing roof membrane and substrate (likely bitumen and any marine grade ply) will be stripped back and any insulation present back down to the roof structure, which is assumed to be a concrete slab c. 150 - 200mm. It is assumed that the bats are roosting in the bitumen roofing membrane.

75 An Appropriate Primer (usually required) is proposed to be provided for bituminous AVCL (Air and Vapour Control Layer) which will be laid over the existing concrete slab, Then a thermal insulation c. 200mm (subject to U-Value calculation to determine exact thickness require) will be overlaid. The final weathering membrane will be a Parallon modified bitumen polymer waterproofing membrane, a base and cap layer.

76 The works are proposed to be carried out (dependant on grant of derogation) between October 2026 and March 2027 outside of the maternity roosting season.

8 Purpose and Justification of Works

77 As mentioned in Section 1.2 above, the purpose of the works is to address, eliminate and prevent contamination risk posed by the accumulation of bat droppings and urine, and the continued ingress of bats to the inside of the building, creating considerable health and safety risk and distress to the occupants of the building. In order to meet the required safety and hygiene standards further contamination must be prevented and current contamination addressed.

78 The works proposed involve the stripping back of the current flat roof, under supervision of a suitably qualified bat specialist/ Ecological Clerk of Works to allow for cleaning and the full and total sealing of the building below to prevent future contamination risk and prevent bats from entering the building.

79 Any works that take place on the building and the flat roof have the potential to result in disturbance of bats and their roosts, or in a worst case scenario, the mortality of bats roosting in the building. The proposed works include the stripping back and rebuilding of the flat roof, and in the absence of mitigation there is inherent potential to affect bats when carrying out any activities during the process, should bats be present at the time of the works.

80 The works will result in the loss of the current roosting location of the bats, and therefore an alternative purpose-built maternity roost bat loft is proposed.

81 The responsibility is on the contractor carrying out the works on behalf of the Board of Education, is to ensure that bats are not present during such works. It is not a defence to maintain that there was no knowledge of bats being present and therefore ‘accidental’ disturbance of bats is not considered an adequate excuse. Guidance on the NPWS website regarding roles and responsibilities is summarised as follows:

Obligations of the Applicant

The Applicant is the person or organisation to whom the derogation is granted. Their responsibilities include:

a) Legal responsibility for compliance
The Applicant is fully responsible for complying with all conditions of the derogation, even if the work is carried out by an appointed ecologist or contractor.

b) Ensure all authorised actions follow licence conditions
All activities must be carried out strictly in accordance with the terms of the derogation; anything outside these terms may constitute an offence.

c) Avoid unnecessary injury, distress, or disturbance
The Applicant must ensure that all works and equipment are implemented so as to avoid unnecessary injury or distress to any bat species.

d) Implement all mitigation and monitoring measures
Mitigation measures described in the derogation application and any clarifications agreed with NPWS must be fully implemented.

e) Work only within permitted dates
Activities must be carried out within the timeframe specified in the derogation.

Obligations of the Scientific Agent / Ecologist

The Scientific Agent (the licensed ecologist named in the application) acts on behalf of the applicant but also has direct responsibilities under the licence.

a) Carry out all licensable activities in accordance with NPWS conditions
The ecologist must ensure that all derogation-authorised activities (e.g., roost disturbance, handling) are completed exactly as approved and safely for bats.

b) Use appropriate methods to minimise harm
They must apply all required mitigation, humane methods, and best practice to ensure minimal disturbance and no unnecessary injury to bats.

c) Follow all measures in the application and NPWS correspondence
Any changes agreed in writing with NPWS must be reflected in the ecological methods and site practice.

d) Accurate reporting
The scientific agent must ensure that any monitoring, reporting, or compliance documentation required by NPWS is completed accurately and on time (derived from NPWS guidance on monitoring obligations under Regulation 54).

e) Competency and supervision
Where trainees are involved, the agent must supervise them and ensure they are correctly listed in the derogation application.

9 Measures to Avoid, Reduce and Offset any Negative Effects on Bats and Their Roosts

82 Mitigation measures have been prescribed with reference to practices outlined in *Bat Mitigation Guidelines for Ireland*[7] UK Bat Mitigation Guidelines *bat mitigation guidelines: A Review of Current Practice and Guidance Reason*[8]*.* The aims of the mitigation strategy are in the first instance to avoid disturbance in as far as is practical and ensure no mortality of roosting bats during the proposed works. In addition to this the mitigation strategy proposes to provide a replacement dedicated bat loft specifically designed for the needs of a Soprano Pipistrelle maternity roost.

[7] Marnell, F., Kelleher, C. and Mullen, C. (2022) Bat Mitigation Guidelines for Ireland – V2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland

[8] Reason, P. & Wray, S., 2023. Bat Mitigation Guidelines: A Review of Current Practice and Guidance. UK Bat Conservation Trust.

9.1 Supervision of Proposed Remedial Works

83 The initial works will involve the stripping back of the flat roof where the roost is located and completely sealing the building to prevent future ingress. A suitably qualified / licensed bat specialist and Ecological Clerk of Works (ECoW) will be on site to supervise this process.

84 Timing of works will be limited to outside the maternity season. the Maternity season for Soprano Pipistrelle is April to late August. Works are therefore to be carried out starting in October 2026 and to be complete before April 2027.

85 The suitably qualified / licenced bat specialist will give a toolbox talk to key personnel involved in works outlining the following:

- The legal protection afforded to all bat species under the Wildlife Acts as well as the conditions of the derogation license
- How to recognise a hibernating bat (with a focus on Soprano Pipistrelle), kinds of bat evidence, and where a hibernating bat is likely to be found
- That works shall be stopped immediately if and when a bat, roost feature, or bat evidence is encountered.
- The obligation to notify the qualified and licensed bat specialist ECoW on site if and when the above are encountered and to await instruction before resuming activity
- The specific mitigation, roost protection measures and contamination control prescribed in this report.

86 Temporary pole mounted rocket boxes (2 number) will be provided on site to accommodate any hibernating bats encountered during the works. The suitably qualified and licensed bat specialist and ECoW on site will move any and all encountered bats by hand to the rocket box. These boxes will be suitably designed for Soprano Pipistrelle and will comply with Bat Conservation International Standards.

87 All key personnel and/or appointed contractors will be required to formally agree to the mitigation measures prescribed in this Bat Mitigation Strategy and any additional conditions attached to the derogation license.

88 The suitably qualified bat specialist and ECoW will remain on site throughout the works to provide supervision and advice, and to record and report any findings. No works will proceed without approval from the ECoW.

9.2 Provision/Creation of a dedicated bat loft

89 In addition to the mitigation strategy and given that a large maternity bat roost is confirmed on site and cannot be retained in its current state, it is proposed to build a purpose-built dedicated bat loft that is designed specifically to accommodate a large Soprano Pipistrelle Roost. It is proposed to build and install this dedicated bat loft in the currently disused water tower directly adjacent to the flat roof building where the roost is located.

90 Scott Cawley ltd. worked in collaboration with Phillip O'Brien of KSNPM, the appointed Architect, to design the concept for the dedicated bat loft (Figure 4), the full design and drawings of which can be found in Appendix I. The proposed design comprises a contained loft/roosting cavity built inside the 6.6m tall disused water tower building. the loft is proposed to be a freestanding structure, constructed of untreated rough timber and rough texture finish to facilitate hanging and clinging, complete with a range and variety of narrow secure crevices. The top of the structure will include a constructed apex with a drop-down height of 2.5m to a platform at the bottom. The bottom of the structure will incorporate a hatch and ladder which can be accessed from the bottom, outside of the maternity season, for maintenance purposes, and where appropriate, monitoring purposes.

91 The water tower structure will be lined internally with insulation to ensure a stable optimum microclimate. To maximise the thermal mass effect of the concrete walls, the south facing wall will not be internally

insulated to allow the wall to emit heat over night after solar gain attained during daylight hours. To facilitate solar gain, the tower will be painted black.

92 Access hopper shoots will be constructed into the walls at of the water tower and designed at an angle of 45^0 to reduce natural light and deter any potential predators. The height of the access hopper shoots will be built to replicate the height of the bats current access points on the adjacent flat roof. The dimensions of the access points will be 25mm x 200mm, using recommendations from Williams (2010) – *Designing for Bats in Buildings.*[9]

[9] Williams, C., 2010. *Designing for Bats in Buildings*. London: Bat Conservation Trust.

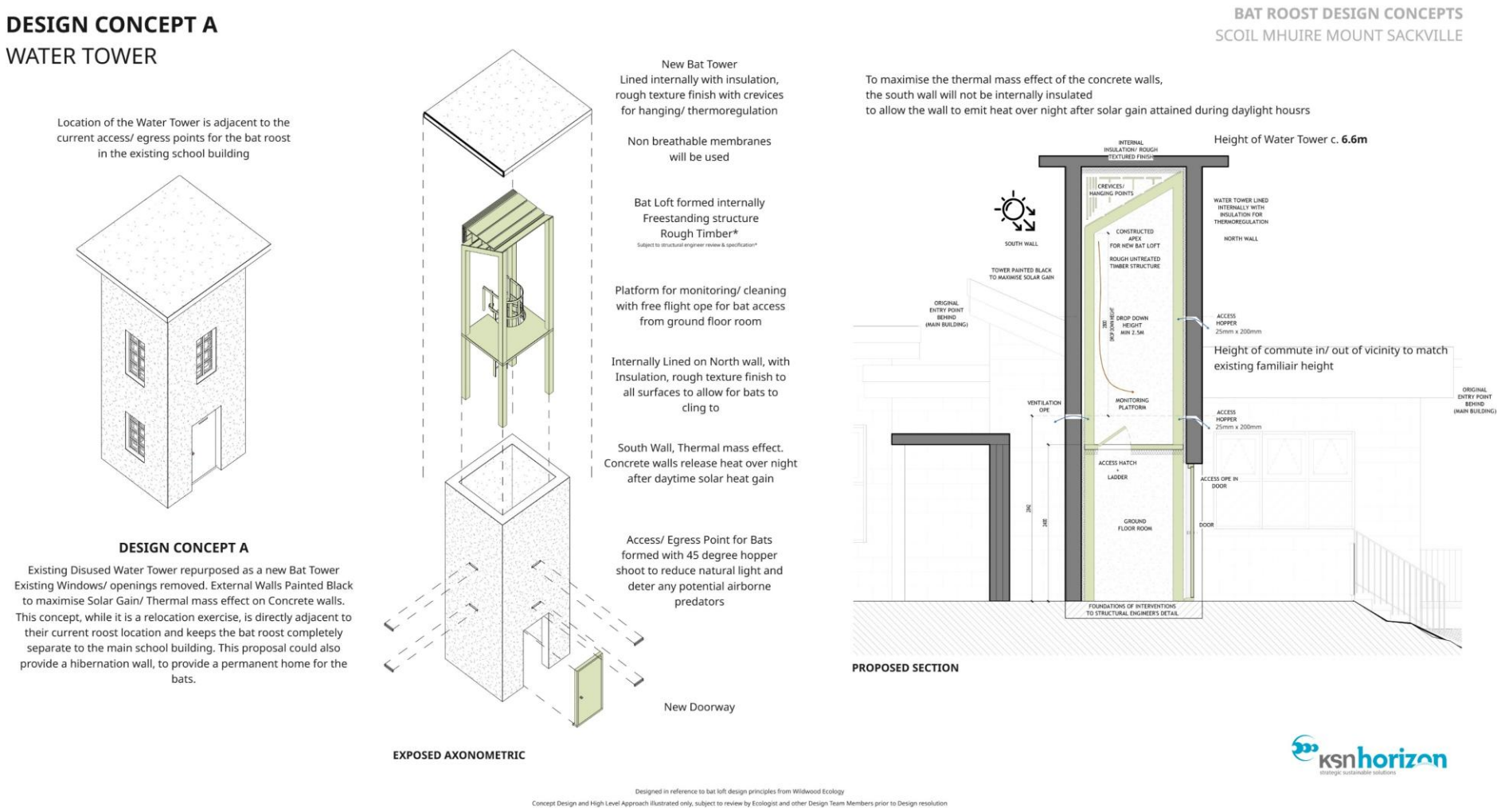


Figure 4 Design Concept for the proposed dedicated maternity bat roost loft (Courtesy of KSNhorizon in collaboration with Scott Cawley ltd.)

9.3 Reporting to the NPWS

93 A report documenting adherence to measures within Section 8 of this report will be produced by the licensed ecologist and forwarded to the NPWS within three months of completion of works. A report of any actions taken will be submitted within three months of expiration of the 12 month licence. The success of the proposed strategy will be measured by the avoidance of mortality of any bats during construction, the provision of the alternative maternity roosting loft, and the prevention of further contamination risk to the school.

10 Post-Construction Monitoring

94 While the success of the proposed strategy will not be measured by occupancy of the roost by bats, it is considered to be best practice and appropriate to implement a monitoring plan to gather information and assess whether the bat population has responded favourably to mitigation measures[7]. It is proposed to monitor the site annually for a period of two years (or as conditioned by the derogation) post construction, to confirm no likely change in use or distribution by bats other than natural pattens of movement, that cannot be explained by influences outside the control of the proposed development.

Post-Construction Monitoring of bat loft.

95 In this instance, post-construction monitoring will include the dedicated alternative bat loft to be constructed on site. A two-year post-construction monitoring programme will be undertaken of bat loft. The monitoring will comprise of emergence presence/absence surveys on the dedicated bat loft, with the aid of IR cameras.

96 All monitoring will be non-intrusive.

97 The two-year monitoring programme is appropriate for the type of roost involved, the magnitude of impact, and the species affected.

11 Conclusions

98 The application to which this derogation licence application and backing report relates to specific impacts on bats and/or their roosts arising from the proposed remedial works to the Scoil Mhuire Mount Sackville Primary School, Tower rd, Chapelizod, Co. Dublin, including roof replacement and the construction of a dedicated bat loft to maintain roost function on-site. A mitigation strategy and monitoring measures have been prescribed in Section 9 to reduce potential impacts on bats as far as possible during work, which are based on industry standard guidance with respect to bat mitigation strategy. Considering the large maternity roost identified in the building, the current conservation status of bat species in Ireland as 'Least Concern'[10], and their widespread distribution and stable population in Ireland, it can be concluded that following the implementation of measures outlined in Section 9 of this report; it is considered that the proposed development will not be detrimental to the maintenance of the local bat population at a favourable conservation status in their natural range.

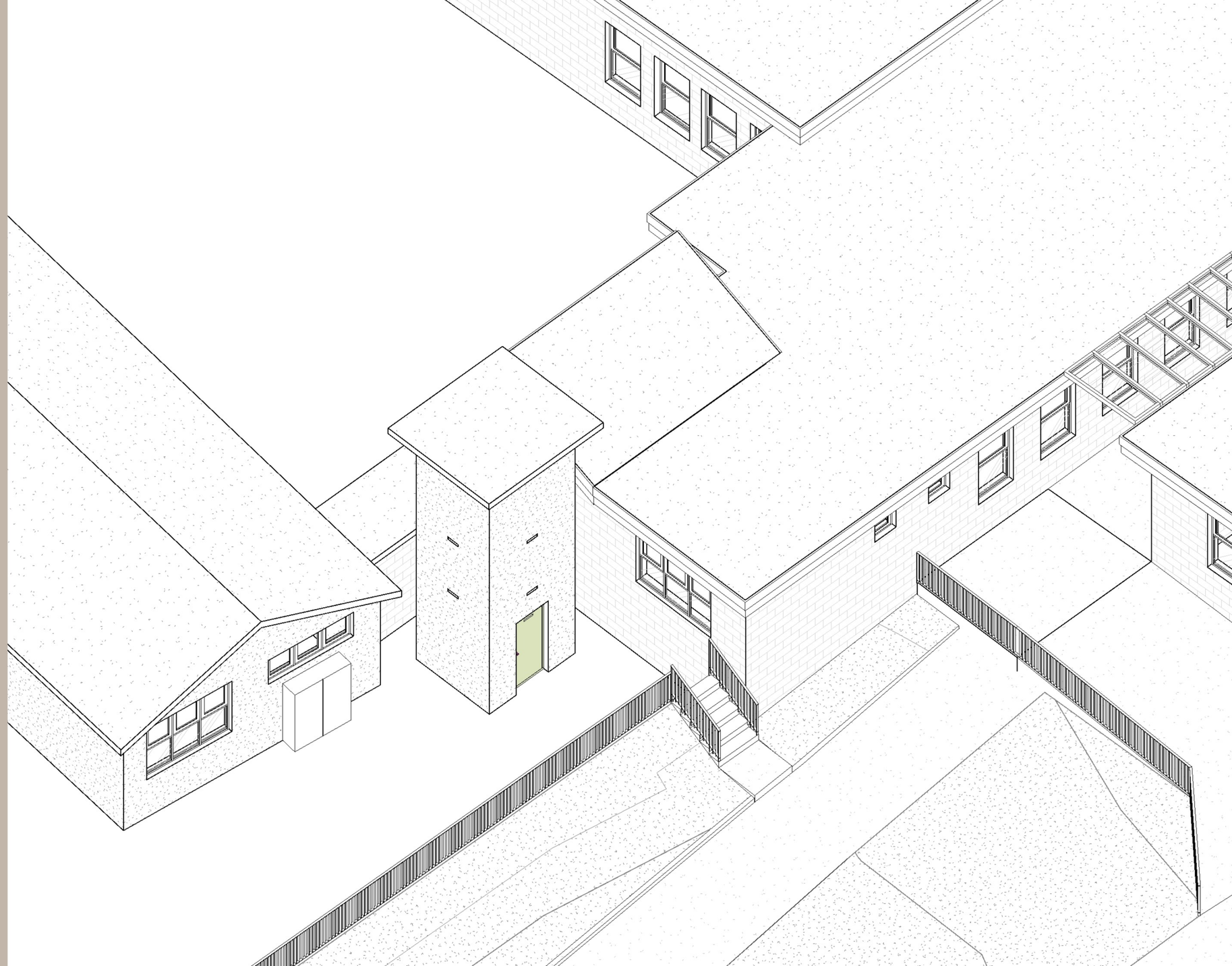
[10] IUCN defines a taxon as 'Least Concern' when it has been evaluated against the Red List criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. IUCN (2001) IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK. IUCN (2003) Guidelines for Application of IUCN Red List Criteria at Regional Levels: Version 3.0. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK.

APPENDIX I Architect drawings

Scoil Mhuire Mount Sackville
Chapelizod, Dublin 20

Bat Roost Design Concept
August 2026

ksnhorizon



CONTENTS

- **Introduction**
- **Existing Building/ Asumptions**
- **Precedents**
- **Design Concept**
  Water Tower
- **Round Up**

Sketch

INTRODUCTION

KSN Horizon have undertaken a design concept study for to accommodate an existing maternity roost of Soprano Pipistrelle bat species at Scoil Mhuire Mount Sackville in Cahpelizod, Dublin 20.

Scoil Mhuire Mount Sackville is located on the historic Mount Sackville campus in Dublin, nestled in the corner of the Phoenix Park, under the patronage of the Sisters of St Joseph of Cluny

It is noted from multiple reports and observations from appointed ecologists that the existing maternity roost is located within the existing flat roof structure of the school building. Refer to the appropriate reports & studies as prepared by DNV & Scott Cawley.
The original school building dates from the early 20th century with later extensions added c. 1970s.

In the absence of intrusive opening up works to determine the build up of the existing flat roof and external walls, assumptions have been made for the purpose of this design concept. The proposals and details illustrated herein do not represent resolved as-built information or construction detailing and are concept only, for the purpose of ascertaining a design approach to assist in the preparation of a derogation licence for the works.

School Crest
Scoil Mhuire Mount Sackville

Soprano Pipistrelle
Bat species present

Main School Building

EXISTING BUILDING/ ASUMPTIONS

Aerial of site

Area of existing school building where bats observed to enter/ exit the roost

Disused Water Tower adjacent to the existing roost location within the existing school building

The existing build up of the flat roof and enclosing walls is unknown, pending opening up works to investigate.

Assumptions have been made to develop the following design concepts. Upon receipt of the derogation licence, approved opening up works in consultation with NPWS will be undertaken to progress the design further and develop technical details.

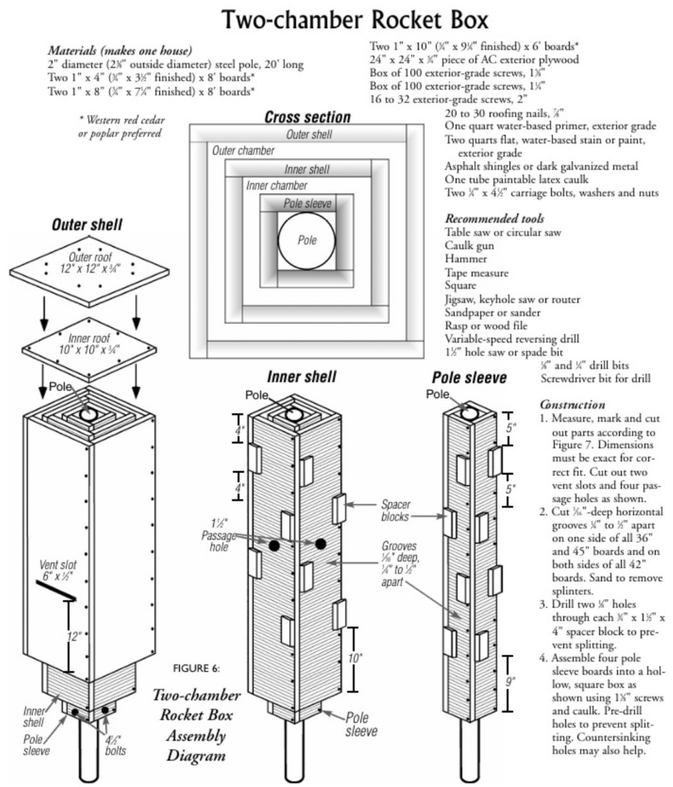
ksnhorizon
strategic sustainable solutions

PRECEDENTS

Purpose Built Bat Towers
Netherlands (left), France (top) & Ireland (bottom)

These buildings are designed to be used by a range of species but particularly *Plecotus*, *Myotis* and ***Pipistrellus*** species.
The bat species present in the school building is **Soprano Pipistrelle.**

Ref; 'A Review of Purpose-built Roosts for European Bats.
H Schofield, A. Alagaili, M.-J Dubourg Savage, T. Kervyn, F Marnell, L. Rodrigues,

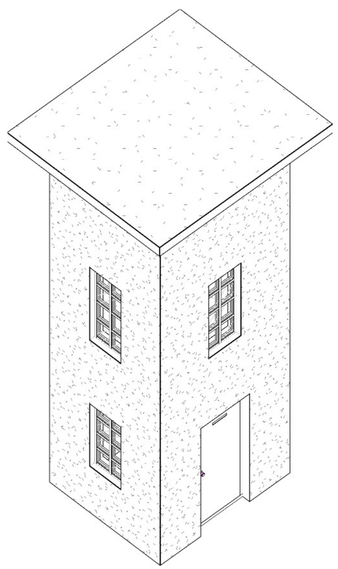


Purpose Built Bat Box
Rocket Boxes, such as the two chamber rocket box illustrated above, provides metric references for proposed crevices/ hanging details.

The use of natural, rough untreated timber or similar rough textured finishes allow bats to hang with ease.

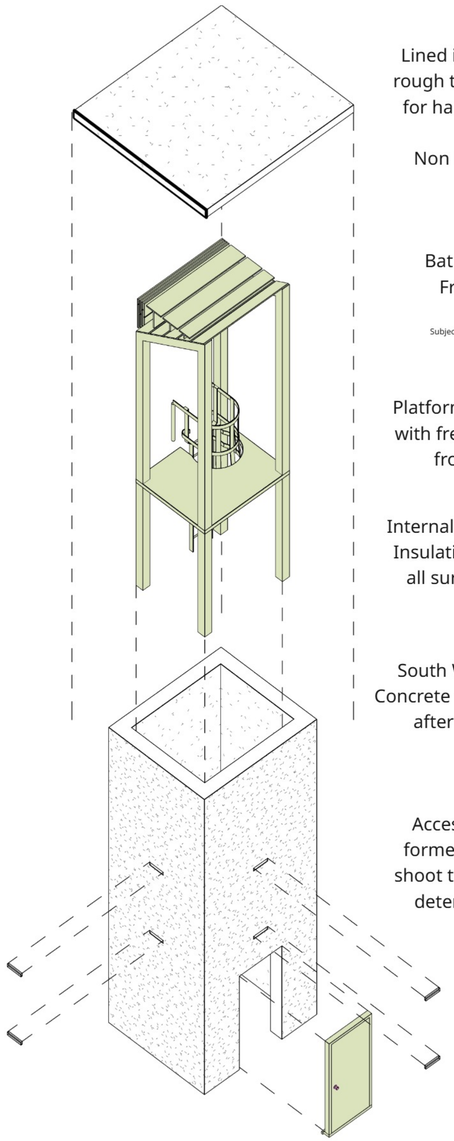
DESIGN CONCEPT
WATER TOWER

Location of the Water Tower is adjacent to the current access/ egress points for the bat roost in the existing school building



DESIGN CONCEPT A

Existing Disused Water Tower repurposed as a new Bat Tower
Existing Windows/ openings removed. External Walls Painted Black to maximise Solar Gain/ Thermal mass effect on Concrete walls.
This concept, while it is a relocation exercise, is directly adjacent to their current roost location and keeps the bat roost completely separate to the main school building. This proposal could also provide a hibernation wall, to provide a permanent home for the bats.



New Bat Tower
Lined internally with insulation, rough texture finish with crevices for hanging/ thermoregulation

Non breathable membranes will be used

Bat Loft formed internally
Freestanding structure
Rough Timber*
Subject to structural engineer review & specification*

Platform for monitoring/ cleaning with free flight ope for bat access from ground floor room

Internally Lined on North wall, with Insulation, rough texture finish to all surfaces to allow for bats to cling to

South Wall, Thermal mass effect. Concrete walls release heat over night after daytime solar heat gain

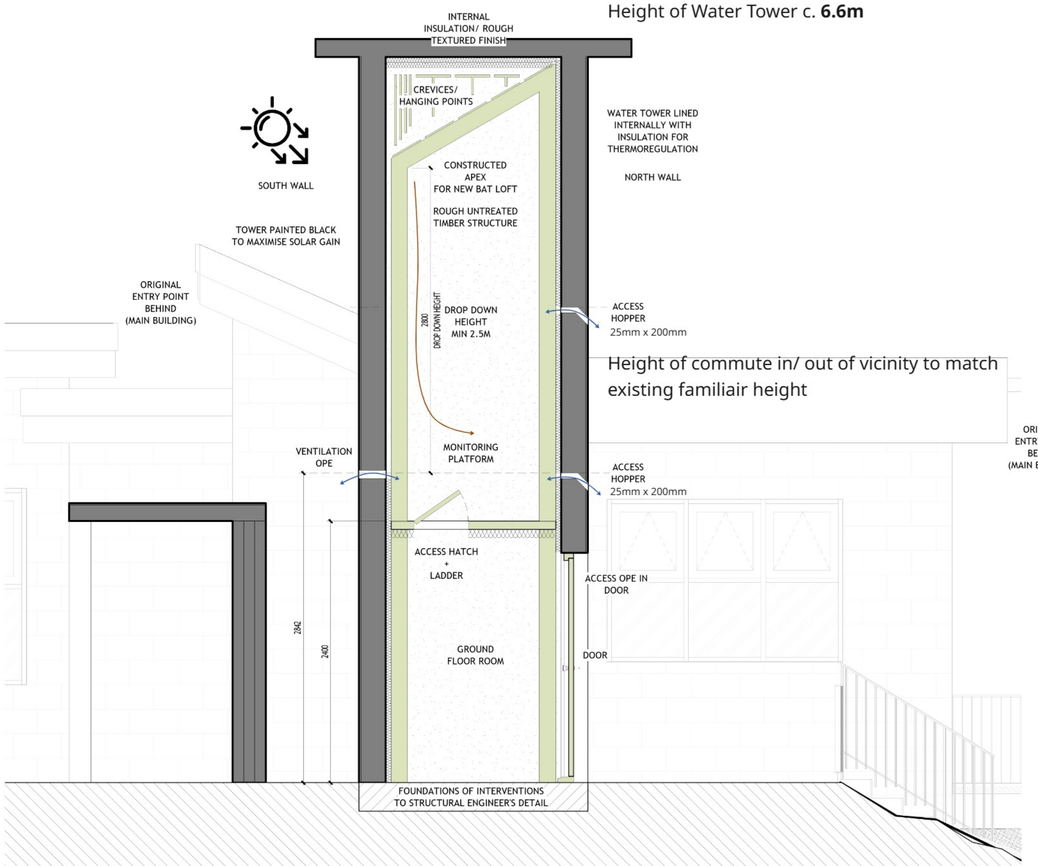
Access/ Egress Point for Bats formed with 45 degree hopper shoot to reduce natural light and deter any potential airborne predators

New Doorway

EXPOSED AXONOMETRIC

To maximise the thermal mass effect of the concrete walls,
the south wall will not be internally insulated
to allow the wall to emit heat over night after solar gain attained during daylight housrs

Height of Water Tower c. **6.6m**



PROPOSED SECTION

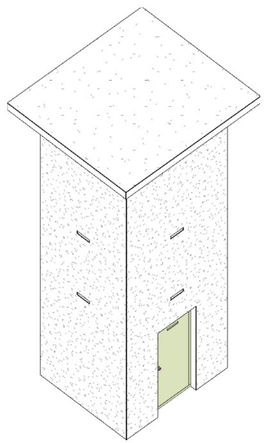
ksnhorizon
strategic sustainable solutions

Designed in reference to bat loft design principles from Wildwood Ecology

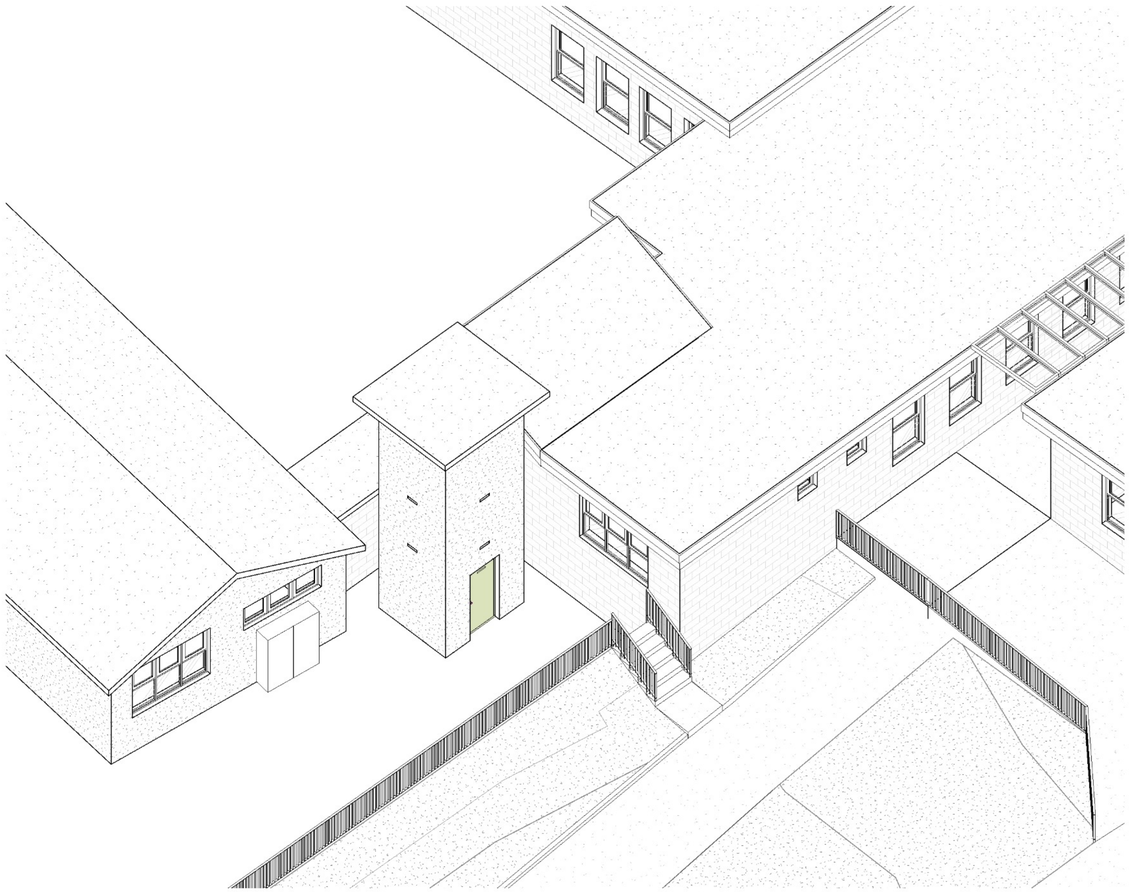
Concept Design and High Level Approach illustrated only, subject to review by Ecologist and other Design Team Members prior to Design resolution

ROUND UP

REPURPOSED WATER TOWER
AS A NEW DEDICATED BAT TOWER



This concept, while involving the relocation of the existing bat roost, positions the new roost directly adjacent to its current location, minimising disruption to the established bat population. Importantly, the proposed roost remains entirely separate from the main school building, providing a dedicated and protected habitat. The maternity roost would be safely contained within a purpose-designed bat loft/bat tower, providing a secure and controlled environment while maintaining suitable conditions for the existing colony.
This approach would accommodate maternity requirements while providing sufficient space for the ongoing monitoring and management of the population.
The internal arrangement allows appropriate access for inspection, cleaning and routine maintenance without compromising the roosting areas. A dedicated access hatch to the upper platform is also provided, facilitating safe monitoring and maintenance of the bat loft.



PROPOSED AXONOMETRIC

ksnhorizon
strategic sustainable solutions

Designed in reference to bat loft design principles from Wildwood Ecology

Concept Design and High Level Approach illustrated only, subject to review by Ecologist and other Design Team Members prior to Design resolution

Thank you