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Bat Conservation Plan and Supporting Information for Bat Derogation Licence Extension

for the Consented Strategic Housing Development,

Coolevally, Shankill, Dublin 18.

prepared for Cairn PLC

SCOTT CAWLEY

Document Control

Project Title	Consented Strategic Housing Development, Coolevally, Shankill, Dublin 18.		**Project No.**	210128
Document Title	Bat Conservation Plan and Supporting Information for Bat Derogation Licence Extension		**Status**	Final
Revision	**Issue Date**	**Author**	**Reviewed By**	**Approved By**
I01	18/02/2025	COB	EC	CC

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1 **Introduction**Scott Cawley Ltd. were commissioned by Cairn PLC in December 2023 to produce a Bat Conservation Plan. This Bat Conservation Plan has been produced in response to An Bord Pleanála's Condition of Planning for reg. ref. ABP – 308418-20, items 14 (a), (b) and 15, on the consented development within lands in Coolevally, Shankill, County Dublin (Grid Ref: O 25539 22777) (see Figure 1):

14 (a). A bat conservation plan shall be submitted for the written agreement of the planning authority and shall incorporate bat roosts into the site. The recommendation of the bat conservation plan shall be carried out on the site to the written satisfaction of the planning authority and in accordance with the details submitted to An Bord Pleanála with this application, unless otherwise agreed in writing with the planning authority.

14 (b). The bat mitigation measures within the Ecological Impact Assessment submitted with the application shall be adhered to at all times during demolition and construction works.

Reason: To ensure the protection of the natural heritage on the site.

15. Public lighting shall be provided in accordance with a scheme, which shall include design details for a bat friendly lighting scheme, details of which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Such lighting shall be provided prior to the making available for occupation of any dwelling.

Reason: In the interests of amenity and public safety.

The purpose of this Bat Conservation Plan is to:

- incorporate artificial bat roosts into the site prior to the commencement of remedial works on 1 no. tree with a confirmed bat roost;
- provide a schedule of mitigation measures to be implemented during supervision of tree felling/pruning works by the acting ECoW;
- outline monitoring measures for the construction and post-construction phases of the consented development;
- devise a lighting plan for the construction and operational phases of the development, and;
- provide supporting information on the requirement for a bat derogation licence following the identification of multiple tree roosts of three species of bat (i.e. common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and Leisler's bat *Nyctalus leisleri*) by Scott Cawley Ltd. ecologists in June 2020.
- Provide supporting information for a derogation application extension of the previously granted derogation licence (Licence No. DER/BAT 2024 – 137) by the NPWS on 22nd August 2024. The derogation extension was sought on 7th February 2025 as further pruning works are required on a veteran tree (i.e.'CRT1' in Figure 2 which supports a confirmed roost), and which previous works were completed in August 2024[1]. As the derogation expired on 31st December 2024, an extension to this licence was sought by the client, to facilitate further remedial works up to 28th February 2025.

[1] Scott Cawley Ltd. (2025). Shankill Abingdon, Ecological Compliance Note to Support a Derogation Licence Extension.

Figure 1. Map showing the Consented Development Boundary.

1.1 Legal Protection and Conservation Status of Bats in Ireland

It is an offence under Section 23 of the Wildlife Acts 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.

As a signatory to the EUROBATS Agreement (Agreement on the Conservation of Populations of European Bats, 1994), Ireland is required to protect their habitats and important feeding areas from damage or disturbance. All Irish bat species are listed in Appendix I of the Bern Convention (1979), as species requiring protection.

There are nine species of bat known to breed in Ireland, while two other species have been recorded on a single occasion. All of Ireland's nine resident bat species are listed as "*least concern*" in the *Ireland Red List No. 12: Terrestrial Mammals*[2].Description of the Permitted Development (reg. ref. ABP – 308418-20)

[2] 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.

The consented development, known as 'Coolevally,' is a residential scheme on a greenfield site to the west of the DART railway line, south of Shanganagh Road and north of Rathsallagh Grove in Shankill, Dublin 18. The development comprises 193 no. apartments within four no. blocks ranging in height from five to eight storeys. The apartment mix will comprise of 193 no. units as follows:

- Twelve number studios;
- One hundred and ten number one-bed;
- One number two-bed (three persons), and;
- Seventy number two-bed (four persons).

All apartments will be provided with associated private balconies and terraces facing north, south, east and west. The development will include a pavilion, open spaces, tree houses, meeting rooms and flexible workspace, BBQ facilities, resident's gym, and residential amenities areas.

The development will include for a total of 120 number car parking spaces including accessible spaces at undercroft and surface level, 372 number bicycle parking spaces and six number motorcycle spaces. Vehicular connection will be via Clifton Park. Additional pedestrian and cyclist accesses to the south (leading to Shankill Dart station to the south) is also proposed. The development also includes for all associated site development works and services provisions including bin storage areas, substations and switch rooms, plant rooms, boundary treatments and landscaping all located at this site, of circa 1.4 hectares, to the south of "Coolevally", Shanganagh Road, Shankhill, Dublin 18.

1.2 Author Statement

This report was authored by Cathal O'Brien and reviewed by Eoin Cussen, and Colm Clarke of Scott Cawley Ltd.

Cathal O'Brien is a Senior Consultant Ecologist at Scott Cawley Ltd. with over five years' professional ecological consultancy experience. Cathal is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and holds a BSc (Hons) in Environmental Biology from University College Dublin and a MSc (Hons) in Ecology from the University of Bremen. He has a range of fieldwork experience conducting bird, botanical, Fossitt (2000) habitat and mammal surveys in Ireland for a range of large- and small-scale developments. Since joining Scott Cawley, he has primarily been involved in fieldwork, recording data and data analysis, and mapping for residential and infrastructural developments, undertaking Ecological Clerk of Work (ECoW) and monitoring surveys on multiple medium scale projects and for a large-scale agri-environmental scheme. Cathal has been involved in ECoW roles on a number of projects from small scale to infrastructure developments, mainly focusing on mitigation strategies for bats. He has also been involved in the preparation of reports, including Ecological Impact Assessment, Environmental Impact Assessment, Appropriate Assessment Screening reports and Ecological Compliance Technical Note reports for residential, commercial, and infrastructural projects across Ireland.

Eoin Cussen is a Senior Ecologist with Scott Cawley Ltd. Eoin holds a BSc (Hons) in Zoology from University College Cork and MSc (Hons) in Ecological Assessment from the same institution. Eoin is an experienced ecologist with over 6 years' professional postgraduate experience in ecological consultancy including planning related casework for state and non-governmental organisations within Ireland and the UK, input to and preparation of Appropriate Assessment (AA) screenings, Natura Impact Statements, Environmental Impact Assessment Reports and Ecological Impact Assessments, and a wide range of experience of

ecological surveys for protected habitats and species including botany, mammals, bats and birds. Eoin is trained and licensed within Ireland to disturb bat roost sites and handle bats where necessary. Eoin is experienced on numerous project types from large infrastructure/ industrial type projects to medium-small scale residential developments across all parts of Ireland.

Colm Clarke is an Associate Director, Terrestrial Ecology, with Scott Cawley. He obtained an honours degree in Natural Sciences from Trinity College Dublin, and a Masters in Biodiversity and Conservation from the same institution. Colm is a full member of the CIEEM, a member of Bat Conservation Ireland and Chairperson of the Dublin Bat Group. Colm is an experience bat worker and has authored and overseen the completion of multiple bat mitigation strategies and licensable activities. He is Scott Cawley's bat ecology lead and has reviewed this report as part of Scott Cawley's internal quality assurance process.

1.3 Outline of Mitigation Measures

The proposed mitigation and monitoring measures outlined from the Ecological Impact Assessment (EcIA)[3] - Section 6 of the EcIA to ensure compliance with legislation which protects bats and their roosts are outlined below:

- *Construction and operational phase lighting will be designed to be sensitive to the presence of bats roosts along the northern treeline and foraging bats along the perimeter of the site, and should adhere to the following guidance:*
  - Bats & Lighting: Guidance Notes for Planners, engineers, architects and developers (Bat Conservation Trust, 2010);
  - Guidance Notes for the Reduction of Obtrusive Light GN01 (Institute of Lighting Professionals, 2020);
  - Guidance Note 08/18:Bats and artificial lighting in the UK (Bat Conservation Trust, 2018).
- *During the construction phase, the following mitigation should be implemented to protect vegetation:*
  - Prior to felling, trees with suitability to support roosting bats will be examined at height for the presence of bats and features which could support roosting bats. If bats are encountered, then they will be removed by hand by a suitably qualified and experienced bat ecologist under licence from NPWS and placed in a bat box for release at dusk;
  - Any trees to be felled on site which cannot be fully examined at height should be rigged and felled in a way that is sensitive to the potential presence of bats. Trees should be section-felled, and the felled parts left in situ on the ground for a period of 48 hours. This should allow any bats present to escape or bats extracted by a bat worker licensed to handle bats and placed in bat boxes to be erected on site. In addition, any trees which are to have remedial works on their limbs carried out should be checked for the presence of bats by a suitably qualified and experienced bat ecologist prior to any works commencing;
- *Bat boxes to be erected on suitable retained trees in suitable locations across the site, the location of which to be decided by a suitably qualified and experienced bat ecologist, and;*

[3] Scott Cawley Ltd. (2020). Ecological Impact Assessment. Strategic Housing Development, Abingdon, Shankill, Co. Dublin.

- *Following completion of the works, monitoring of the erected bat boxes will be undertaken to measure the success of the proposed mitigation measure. This will include a manual check of the boxes by a suitably qualified and experienced ecologist that will be undertaken once a year over three consecutive seasons.*

The landscape plan[4] includes additional native woodland planting of birches and pines along the northern treeline, creating further screening from any light spill from the proposed development.

2 Methodology

2.1 Desktop Study

A desk study involving retrieval of information from the National Biodiversity Data Centre (NBDC) of protected species records[5] was undertaken.

2.2 Tree Survey to Identify Potential Roost Features

A survey of all trees onsite that are due to be felled and/or undergo pruning during enabling works were initially assessed for their potential to support roosting bats by Scott Cawley Ltd. in April 2019. A follow-up inspection of all trees on site and 5 no. trees to be felled outside the site along the southern boundary for potential roost features (PRF) was undertaken by Cathal O'Brien of Scott Cawley Ltd. on the 4th of January 2024. The assessment criteria outlined in ***Table 1*** below, are derived from *Bat Surveys for Professional Ecologists: Good Practice* Guidance 4th edition (Collins ed., 2023)[6], and are used for the assessment of the site in terms of its suitability for commuting and foraging bats, and where relevant, the suitability of roosting habitats for bats.

Trees on the proposed development site were inspected externally for PRFs. The identification of PRFs involved a search for evidence of bats such as:

- Dead specimens;
- Bat droppings;
- Urine splashes;
- Fur-oil staining;
- Squeaking noises;
- Feeding remains (moth wings);
- Bat-fly (Nycteribiid) pupal cases; and/or
- Odour

Table 1*: *Guidelines for assessing and categorising the potential suitability of trees within a proposed development site based on the presence of potential roost features (PRFs) for bats (Taken from Collins (2023).

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to lack of size or lack of suitable surrounding habitats.

[4] MOLA (2020) Abingdon Residential Development Landscape Design

[5] National Biodiversity Data Centre Database of records. Available online at www.biodiversityireland.ie [Accessed 18/02/2022]

[6] Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn.).* The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6.

PRF-M	PRF is suitable for multiple bats and therefore may be used as a maternity colony.

Each tree, confirmed by the client to be felled and/or to be pruned, was assessed by Cathal O'Brien according to the assessment guidelines. The results of the tree survey are illustrated in Figure 2 and described in Section 3.3 below.

3 Results

3.1 Desktop Study

The NBDC holds records of the following species within c. 2km of the consented development:

- Brown Long-eared Bat *Plecotus auratus* – recorded *c.* 0.5km northwest of the consented development in 2010
- Daubenton's bat *Myotis daubentonii* – recorded *c.* 2km northwest of the consented development in 2004
- Lesser Noctule *Nyctalus leisleri* – recorded *c.* 2km northwest of the consented development in 2004
- Common pipistrelle *Pipistrellus pipistrellus* – recorded c. 1.2km northwest of the consented development in 2009
- Soprano Pipistrelle *Pipistrellus pygmaeus* – recorded *c.* 0.7km northwest of the consented development in 2004.

3.2 Tree Survey to Identify Potential Roost Features

Following an inspection of all trees on site in April 2019 and a follow-up inspection including 6 no. trees to be felled outside the southern and eastern boundaries, two trees were considered to have negligible suitability for roosting bats based on good practice guidelines[7], and as such, are not considered further in this report. Two additional sycamore *Acer pseudoplatanus* trees in addition to those surveyed in 2019 had low suitability along the southern boundary and seven trees in total (two additional to the 2019 survey) contained PRFs of moderate suitability for roosting bats. These included those with confirmed bat roosts (i.e. 'CTR1' and 'CRT2').

3.3 Summary of Prior Bat Surveys Results

Two dusk activity surveys undertaken in October 2019 followed by a post-dusk emergence and one pre-dawn re-entry and activity surveys which were undertaken in June 2020 to inform the baseline conditions of the site. During both of the dusk surveys carried out on 1st and 9th October 2019, two species of bat were recorded commuting predominantly across the northern and northeastern treelines of the site[1]. These two bat species included common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus.* The activity surveys in 2019 did not confirm if roosting bats were using 5 no. coniferous trees (3 no. Monterey cypress *Cupressus macrocarpa* and 2 no. Monterey pine *Pinus radiata*) identified as having moderate suitability to support bat roosts at the time of the surveys.

A static bat detector (SM2BAT ultrasound detector) was also deployed for a period of 14 days from 25 September to 09 October 2019 along the treeline in the north-western part of the consented development site which recorded common pipistrelle, soprano pipistrelle and

Leisler's bat *Nyctalus leisleri*. Data from both the activity surveys revealed common pipistrelle bat was most frequently recorded whereas soprano pipistrelle was infrequently detected. A similar pattern emerged from analysis of the static detector in which Leisler's bat was also frequently recorded.

Three bats were recorded during emergence and activity surveys carried out on 1st and 9th June 2020 including common pipistrelle, soprano pipistrelle and Leisler's bat. Activity was mainly concentrated along the northern and western boundaries of the site.

During the emergence survey, two soprano pipistrelle bats were observed emerging at dusk from a mature Monterey pine tree (labelled CRT1 in ***Plate 2***). While three Leisler's bats and three to four common pipistrelle bats, were noted emerging from a mature Monterey cypress tree (labelled 'CRT2' in Figure 2 and shown in ***Plate 1***).

Three to four common pipistrelle were observed re-entering during the dawn survey into CRT2. However, it was noted that, due to the large number of PRFs and complexity of roosting features observed on all marked PRF trees (especially the trees labelled CRT1 and CRT2 in Figure 2), it was possible that additional emergence of bat species was occurring throughout the northern treeline boundary.

Figure 2: Illustrating locations of trees with confirmed roosts, potential roosts and negligeable roost potential.

These surveys informed the three subsequent ecological reports submitted in 2020, which were submitted to support the now consented application at this site (reg ref: ABP – 308418-20). These reports were:

- Scott Cawley Ltd. (2020). Bat survey memo for proposed site at Shankill, Co. Dublin. *Prepared for ES Shan Limited., and;*

- Stephen Little & Associates (2020). *Ecological Impact Assessment, Strategic Housing Development at lands in Abingdon, Shankill, Co. Dublin*. *Prepared for ES Shan Limited.*

This Bat Conservation Plan includes the results and recommendations of these reports, specifically the results detailed in the EcIA[1], which are summarised above. Additional mitigation measures in respect of the lighting plan under Condition 15 have been advised to be implemented for the operational phase of the consented development.

Plate 1: A veteran Monterey cypress tree 'CRT2' with known bat roosts

Plate 2: A mature Monterey pine tree 'CRT1' with known bat roosts

Plate 3: Locations of bat roosts in 'CRT2' identified in June 2020

Plate 4: Locations of bat roosts identified in 'CRT2' in June 2020

Plate 5: Location of a bat roost identified in 'CRT1' in June 2020

4 Mitigation Measures Going Forward

4.1 Installation of Bat Boxes

Prior to the commencement of remedial works on trees, nine no. bat boxes are to be installed on retained trees along the northern boundary and on suitable trees along the eastern boundary which are to be selected by the acting ECoW. The tree-mounted bat boxes will be installed either by the acting ECoW or by the contractor under the supervision of the ECoW, with final location of the boxes to be determined by the onsite SQE on the day of installation. It is preferable that each faces a slightly different aspect from southeast to southwest facing, to provide a range of slightly differing temperature regimes (Bat Conservation Ireland, 2015)[8]. All bat boxes will be installed at least 3m above ground level to minimise the risk of interference by humans. The bat boxes will be located away from areas that are subject to artificial light spill. Guidelines on selection and installation of boxes are provided in Appendix II.

4.2 Roost Emergence Survey

One dusk presence/absence emergence survey will be undertaken prior to works to fell and/or prune trees on site by 2 no. Suitably Qualified Ecologists (SQE) from Scott Cawley Ltd. on the night prior to the works commencing. The focus of the emergence survey will be on the northern treeline, where SQEs will be positioned facing 1 no. mature Monterey pine (i.e. 'CRT1' in ***Figure 2*** and illustrated in Plate 2 which is confirmed as supporting a soprano pipistrelle roost of two bats (shown in ***Plate 5)*** and 1 no. veteran Monterey cypress (i.e. ***'***CRT2' in ***Figure 2*** and illustrated ***in*** Plate 2*)* roost which contained up to three Leisler's bats and up to four common pipistrelle bats *(shown in* ***Plate 3*** and ***Plate 4*** above) from emergence/re-entry surveys conducted in 2020. The purpose of the emergence survey is to determine and

[8] Bat Conservation Ireland (2015) Bats & Bat Boxes Guidance Notes for: Agri-environmental Schemes August 2014, Updated January 2015

locate bat roosts which may still be present in either or both trees. The site facing branches of CRT1 are to be pruned as part of enabling works.
The emergence survey will commence 15 minutes prior to sunset and continue for 1.5 hours after sunset. Presence/absence of bats from roost sites and potential roost sites will be recorded by direct observation from ground-level and by handheld ultrasound detectors (Elekon Batlogger M2). Echolocation recordings will be analysed using BatExplorer software. An infra-red camera and infra-red torches will be deployed during the emergence survey to cover the remaining area along the northern treeline, west of CRT1 and CRT2.

4.3 Pre-felling inspection survey of trees with PRFs

As per the mitigation measures proposed in Section 6.4.2 of the EcIA (Scott Cawley Ltd. 2020), trees which are to be felled or sections which are to be pruned with suitability to support roosting bats will be examined for the presence of bats and features which could support roosts immediately following the emergence survey. The inspection of all PRFs (i.e. vertical cracks, knot holes and flacking bark) will be conducted on the day of the felling/pruning of each tree by an acting ECoW who will be deployed to the site by Scott Cawley Ltd. Identified PRFs will be visually inspected from ground level where possible and at a height with the aid of an elevated platform (such as MEWP etc.) using an endoscope device (RIGID CA-350) and torch. The SQE on site will direct the operator of the MEWP to move the lift to access PRFs to enable them to inspect each PRF with the endoscope. Where no bats are found in limbs and/or the main stem of trees or sections of same to be removed, these will be felled following the most feasible of two methods as described below in Section 5.4.
Remedial works will be restricted to pruning overhanging branches on trees along the northern boundary, including 'CRT1' containing a common pipistrelle roost. The limbs in which the roost was identified in the bat surveys in 2020 will not be subject to remedial works by the tree surgeons. However, it cannot be ruled out that bats will be encountered during the inspections of PRFs in the site facing branches which are to be pruned. Where a bat is encountered during the inspections of PRFs, the acting ECoW will instruct tree surgeons to cease works. Works will cease until the bat leaves the roost / the bat may be removed from the roost and transferred to a bat box subject to safe accessibility and the professional judgement of the bat worker. In the case that the bat is allowed to vacate the PRF of its own accord, the feature will be soft blocked to prevent re-entry by the bat. Only after confirmation of absence of bats will the remedial works proceed.

4.4 Tree felling

Trees identified as having potential to support roosting bats, will be felled/pruned as per the consented mitigation measures using one of the following methodologies:

a) Trees to be section felled and the felled parts left in situ on the ground for a period of 48 hours. This would allow any bats present to escape, or bats extracted by a licenced bat worker and placed in bat boxes to be erected on site; or
b) Trees to be soft felled using heavy plant to push over the tree. In order to ensure the optimum warning for any roosting bats that may still be present, the tree would be pushed lightly two to three times, with a pause of approximately 30 seconds between each nudge to allow bats to become active. The tree would then be pushed to the ground slowly onto

brash to reduce the impact of felling and remained in place for 48 hours before removal by the tree surgeons.

4.5 Presence/Absence for Breeding Birds

All wild birds, and their nests and eggs, are protected under the Wildlife Acts (as amended). It is advised remedial works on trees take place outside the breeding bird season (March 1st – August 31st). Where felling and/or pruning works must take place within the nesting season, the acting ECoW must inspect all vegetation to be removed in addition to inspections of PRFs for roosting bats. The presence/absence inspections for active nests would be conducted both from ground-level and height in a MEWP, depending on which option is most feasible. The ECoW on site would instruct tree surgeons to cease remedial works and a 30m buffer would then be cordoned off in the event an active nest is located.

4.6 Limitations of Surveys

The presence/absence bat survey conducted prior to the supervision of the tree felling would be primarily focused on two no. mature/veteran trees with previously identified bat roosts (i.e. CRT1 and CRT2). However, two other trees with moderate suitability for roosting bats are ear-marked to be felled, and three additional mature trees with moderate suitability are to be pruned on their site facing sides. These trees will not be the focus of the presence/absence survey. However, as they were not previously identified as containing roosts, inspections of PRFs with the endoscope and the adoption of either methodology a) or b) in Section 5.4 above, should sufficiently mitigate any risk to potentially roosting bats within trees to be removed or sections of limbs to be pruned.

4.7 Lighting

When bats emerge from roosts early in the evening, they tend not to echolocate but rely on eyesight to fly from the roost to adjoining treelines or hedgerows (Bat Conservation Trust, 2010). Dim light conditions are most suited to bats, too much luminance at bat roosts may cause bats to desert a roost. Light falling on a roost exit point can delay bats from emerging and miss peak levels of insect activity at dusk. Any delays of emergence can reduce feeding periods.

Lighting can impair bats feeding behaviour, many nocturnal flying insects are attracted to light, especially UV light. Light tends to draw insects into concentrated areas away from there traditional feeding areas for bats, such as along hedgerows, treelines and watercourses. Illumination of foraging and commuting habitat can result in abandonment of habitat. Although, the response to lighting in Ireland by foraging bats varies by species, with Leisler's bat, a high-flying species, as well as common pipistrelle bat and soprano pipistrelle bat appearing to be least affected by lighting (Roche et al., 2014). However, increased light levels can affect predation, as avian predators tend to rely on vision to catch their prey, and increased light levels at night-time may increase bats vulnerability to predation.

During the bat surveys in June 2020, it was noted that the entire site was very dark, quiet and lacking disturbance throughout with very little light spill due to the treelines. Although, a treeline of Leylandii *Cupressocyparis Leylandi* has since been felled along the southern boundary, possibly increasing light spill into the site, from the public laneway.

As per the planning compliance Condition No. 15, a lighting design sensitive to bats known to roost, forage and commute within the consented development will be devised and implemented during the construction and operation phases. Any light spill affecting foraging

and commuting corridors used by bats identified along the site boundary will be avoided with respect to the Public Lighting Plan. However, due to the unpredictable nature of light spill from the private realm (i.e. apartment windows) during the operational phase, the possibility of light spill affecting commuting bats cannot be ruled out in its entirety.

The public lighting design will be sensitive siting and design of the lighting elements, which will include careful consideration of light placement on buildings, column heights (which will be no greater than 6 metres) and luminaire design with full cut-off lanterns. Accessories such as baffles, hoods or louvres can be used to reduce light spill and direct light to where it is needed. Ideally luminaires are selected which do not emit UV light (e.g. metal halide and fluorescent light sources should be avoided). LED luminaires will be used on all lanterns within the site due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. Lux levels will be maintained at a level of 1 or less along the retained treelines (i.e. along the northern, northeastern and western boundaries) and treeline immediately south of the southern boundary within a public green space, to maintain their long-term suitability for foraging/commuting bats. The light level along the site boundaries will be confirmed via lux level surveys by the acting ECoW.

There is capacity within the Public Lighting Plan[9] for light levels to be dimmed by up to 25% during nighttime hours. The height of light columns will be restricted to 6 metres to reduce light spill where it is not needed.

Monitoring of light levels along the treelines and hedgerows will be undertaken pre-construction, during-construction and post-construction to identify any areas where light spill is affecting background levels during construction or operation.

Reporting on the monitoring will be forwarded to the local authority for their review and any remediation required agreed between them and the applicant.

The lighting will be designed in accordance to the mitigation measures, outlined herein and in Section 5.7 by an experienced bat ecologist to be sensitive to the presence of bats and their roosts, particularly along the northern boundary, and should adhere to Green Infrastructure policies in the Woodbrook – Shanganagh Local Area Plan 2017-2023 and Green Infrastructure and Biodiversity within the Dun Laoghaire-Rathdown County Development Plan 2022-2028, and to the following guidance:

- Bats & Lighting: Guidance Notes for Planners, engineers, architects and developers (Bat Conservation Trust, 2010);
- *Guidance Notes for the Reduction of Obtrusive Light GN01* (Institute of Lighting Professionals,

2021);

- *Guidance Note 08/18:Bats and artificial lighting in the UK (Bat Conservation Trust, 2018).*

4.8 Lighting Plan

The lighting plan for the permitted site[10] was reviewed by Cathal O'Brien of Scott Cawley on 27th June 2024. The lighting plan was found to be in line with the guidance as set out in Section 5.6 above and is to the satisfaction of the project ecologist.

[9] Fallon Design M&E Engineering (2020). Public Lighting Report Residential Development Abingdon. Abingdon, Shanganagh Road, Shankill, Co. Dublin

The Public Lighting Plan (see ***Figure 3***) carefully considered the existing natural habitat and the wildlife along the site boundary. The luminaires which will be installed on light columns will have a full cut off lantern type, which offers with a G6 Glare rating and no upward light making it dark sky friendly. Other features sensitive to roosting, foraging and commuting bats include:

- An inbuilt multi step dimming program within this luminaire allows for nighttime hours to be dimmed by up to 25%. This means during peak hours of nocturnal foraging, feeding and activity the adjacent public lighting can be further designed to minimize impact on the local wildlife;
- The colour rendering of the selected light fitting is 4000k making the LED fittings a warmer light, helping to further minimize the impact on the local wildlife;
- Greater energy savings will also result using the inbuilt multi-step dimming program during late hours of darkness along the public lighting spaces, and;
- The particular local ecology and wildlife as referenced in the Scott Cawley Ecological Impact Assessment, BioSphere Environmental Services report and the Bat survey (conducted by Scott Cawley Ltd.) have been incorporated into the lighting design.

Figure 3. A greyscale graphic of the Lighting Plan on implementation including the predicted light spill during the operation phase[11] (taken from the Public Lighting Plan report[4]).

[11] The greyscale plot shows minimal light spill from the boundary and the 0.1 contour lux is closely wrapped around the site boundary.

4.9 Bat Derogation Licence

As bat roosts have been previously identified in trees CRT1 and CRT2 as outlined in Section 4.3, the pruning works proposed on the former tree will trigger the requirement for a derogation licence extension to be obtained from the NPWS. A derogation application will be prepared and submitted to the NPWS on the behalf of the client as it cannot be ruled out bat roosts will not be encountered by the acting ECoW prior to remedial works to be undertaken by the tree surgeons on site. Any bats found during the inspection of PRFs in both trees can only be captured by the ECoW on successfully obtaining a derogation licence following the strict conditions set-out in this report.

4.9.1 Bat Derogation Licence Extension

Following the granting of a derogation licence (Licence No. DER/BAT 2024 – 137) by the NPWS on 22nd August 2024, initial remedial works on CRT1 were completed on 23rd August 2024[12]. As the derogation expired on 31st December 2024, an extension to this licence was sought by the client on 7th February 2025, to facilitate further remedial works on 'CRT1'. The extension is requested up to 28th February 2025, prior to the closed season for nesting birds (i.e. March 1st – August 31st). No pruning works are proposed regarding the veteran Monterrey cypress tree CRT2 which will remain fully intact, including the crown of the tree in which a common pipistrelle and Leisler's bat roost were recorded by Scott Cawley Ltd. ecologists in June 2020.

5 Need for The Derogation Licence Extension

Scott Cawley Ltd. will be required to prepare a derogation licence application for Regulation 54 of the European Communities (Birds and Habitats) Regulations 2011 (S.I. 477 of 2011) on behalf of the client, complying with the requirements of the provisions of Regulations 51, 52 and 53 of the same Regulations.

5.1 Test 1 – Reason for seeking derogation

The derogation is being sought on the basis that the consented development site (Coolevally, Shankill, Dublin 18) contains multiple roosts in 2 no. veteran trees, and the proposed works are proposed to impact on one of these trees, as described in Section 4.9.1. The proposed works to the tree of which the crown contains a soprano pipistrelle roost has the potential to result in the disturbance of bats in the roost and/or direct mortality of any bats present, 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.

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."

The 2 no. veteran trees (see Plate 1 and Plate 2, Section 3.3) have been largely incorporated into the landscaping of the site (see Tree Protection Plan in Appendix III). However, overhanging branches on the site (south) facing side of CRT1, are required to be lightly pruned towards the crown as part of enabling works for the construction phase to avoid strike risk and due to obstruction to installation of scaffolding. The trees, including the locations in which a bat roost was identified in 'CRT1', will otherwise be retained with a Root Protection Area in

[12] Scott Cawley Ltd. (2025). Shankill Abingdon, Ecological Compliance Note to Support a Derogation Licence Extension.

place during construction works. The remedial works will facilitate the installation of scaffolding and plant during construction works, potentially resulting in a temporary disturbance of any bats within the roost.

5.2 Test 2 – There is no Satisfactory Alternative

Alternative approaches to the pruning works (which it should be noted could result in disturbance of bats, but will not lead to the loss of roosting habitat via removal of PRFs) have been considered as follows:

1. Amending the project design to accommodate the retention of CRT1 – this would require an amendment to planning for the consented development and demolition of partially constructed buildings. While this would avoid the necessity for issue of a derogation, the project objective of provision of a housing development at the scale and density as required for the site and as set out in the projects planning permission would not be achieved. Therefore it is not a satisfactory alternative.
2. Amendment of the scaffold configuration to avoid CRT1 – the layout of scaffolding on site is required to provide safe access for construction personnel to carry out works to the exterior of the building. While the omission of scaffolding would avoid the necessity for issue of derogation, it would introduce an unacceptable health and safety risk to the personnel working on the exterior of the building and furthermore would compromise the project objective of provision of a housing development at the scale and density as required for the site as scheduled within the planning permission as granted. Therefore it is not a satisfactory alternative.

In the context of the above, the completion of pruning of CRT1, which could result in indirect disturbance to bats via noise and vibration of the tree, is the only solution available that will enable the achievement of the projects objectives. Therefore, it can be concluded that there is no satisfactory alternative to the issue of a derogation.

5.3 Test 3 – Favourable Conservation status

The application relates to specific impacts on a soprano pipistrelle roost arising from remedial works on overhanging branches of the site (south) facing side of 1 no. veteran tree within the consented residential development site in Coolevally, Shankill, Dublin 18. The strategy outlined in this report includes measures to avoid and minimise disturbance to bats, and the provision of alternative roosting sites for the duration of construction and post-construction. In light of the size of the tree roosts identified in the lands (i.e. common pipistrelle and Leisler's bat in CRT2 and soprano pipistrelle in CRT1), and the current status of all species identified roosting on site as 'Least Concern', it can be concluded that following the implementation of measures outlined in Section 3 of this report, the proposed works will not be detrimental to the maintenance of the soprano pipistrelle bat, common pipistrelle and Leisler's bat at a favourable conservation status in their natural range.

6 Post-Construction Monitoring

While the success of the proposed strategy will not be measured by occupancy of roosts 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. In this instance, post-construction monitoring checks of occupancy of the alternative roost facilities will be undertaken.

A post-construction light level survey will be undertaken to determine whether light conditions are at baseline levels and whether remediation will be required to mitigate against any light spill to bat sensitive areas such as confirmed tree roosts and along the northern treeline.

6.1 Monitoring of Alternative Roosts (Bat Boxes)

A five-year post-installation monitoring programme will be undertaken of the bat boxes. The boxes will be checked for presence of bats or signs of bats on an annual basis between August and September annually for three years, post-construction, by an appropriately licensed and qualified ecologist. The results of these surveys will be tabulated and shared with the local authority and the NPWS.

7 Conclusions

This amended Bat Conservation Plan relates to the specific impacts on bats and/or their roosts arising from the pruning of one tree on lands at Coolevally, Shankill, Dublin 18. Measures have been provided to reduce potential impacts on bats as far as possible during the tree felling process in the consented development site. The strategy outlined in this report includes the provision of artificial roosting sites (*i.e.* the provision of the woodcrete bat boxes). The requirement for an application for a bat derogation licence has been considered and addressed. There are known roosts of common pipistrelle, soprano pipistrelle and Leisler's bat in two trees along the northern boundary within the site, one of which containing a common pipistrelle roost will be subject to further pruning works. Common pipistrelle are of 'Least Concern'[13], soprano pipistrelles are of 'Least Concern' and Leisler's bats are 'Near Threatened'[14]. The population of all bat species in Ireland is considered to be 'Least Concern'[15]. Considering a bat derogation licence will be sought from the NPWS and the mitigation measures identified in the Public Lighting Plan with regards to the lighting design, and as outlined in this Bat Conservation Plan concerning remedial works to trees to offset potential impacts to habitat for roosting, foraging and commuting bats, it can be concluded that following the implementation of such measures, the permitted development will not be detrimental to the maintenance of the common pipistrelle bat, soprano pipistrelle bat and Leisler's bat at a favourable conservation status, in their natural range.

[13] IUNC 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.

[14] IUNC defines a taxon as 'Near Threatened' when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered, Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future. 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.

[15] 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.

Appendix I– Conservation Status and Distribution of Bat Species in Ireland

Species	Status	Distribution
Common Pipistrelle Bat *Pipistrellus pipistrellus*	Resident	Widespread
Soprano Pipistrelle Bat *Pipistrellus pygmaeus*	Resident	Widespread
Nathusius' Pipistrelle Bat *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

Appendix II – Guidelines on the Installation of Bat Boxes

Installing bat boxes	
Bat box selection	Woodcrete bat boxes are most suitable for installation in Ireland. They offer an advantage over wooden boxes due to their thermal properties – they are better at trapping heat from solar radiation. A range of such woodcrete bat boxes are available for purchase on Veldshop, NHBS, Wildcare or similar websites.
Bat box site selection	The boxes should be located at least 3m above ground level. Apart from providing a "drop" zone for bats flying out of the roost, the boxes need to be placed out of reach of humans. In general, it is recommended that several bat boxes (3+) be placed in clusters on the same tree. South and west facing aspects will maximise warmth of the boxes.
Bat box installation	Boxes are best installed in places that are not subject to light spill. Bats are sensitive to lighting and light spill may discourage bats from using a box which is otherwise suitable for roosting in. Boxes should ideally be located close to suitable foraging habitat. Irish bats are associated with woodland and woodland edge habitats, such as hedgerows and treelines. In urban areas, they will be associated with parks, and watercourses such as rivers and canals, particularly ones that are lined with trees and scrub.

Appendix III – Tree Protection Plan – Construction