

**Derogation Application for a tree removal at the site at Red Barns Rd,  
Dundalk, Co Louth**



**Wildlife Surveys Ireland Ltd**

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## **B Introduction**

Bats are a widespread element of the Irish fauna. They are known to occur from much of the rural landscape but they are also present within the urban environment and here they occupy buildings and occasionally trees for short or long periods. Houses and other buildings are a vital element of the annual cycle of all Irish bat species and many bats may also avail of buildings as hibernation sites.

Summer and autumn are the easiest times to identify the presence of bats due to the often-increased numbers present, the high level of activity and the milder, drier weather allowing bat signs to accumulate. The presence of bats in winter may be impossible to determine in many buildings unless there is adequate access to confirm either signs of bat usage or the presence of the bats themselves. Signs may still be available to confirm this at a later stage in the year if the roost area is accessible to a trained observer. Changes to a site including roof repairs, extension to or modification of an existing building may directly affect bats by creating risk of injury or death, may reduce the options available to bats as a roosting site and may also affect their feeding and commuting activity.

Bats are protected by Irish and EU law and to prevent unlawful injury or death, it is essential that a full understanding of the site is available in advance to protect the resident bats and to create a pathway by which a legal derogation and exemption may be designed in consultation with the National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage.

### **B1 Background to activity including location, ownership, type of and need for the proposed development, planning history, land allocation in Local Plan (or equivalent), etc.**

**Location:** Red Barns Road, Dundalk, Co. Louth

**Ordnance Survey Map Reference:** 1702-04 AND 1702-09

**Ownership:** Wonderglade Unlimited Company (Denis Williams, Bridget Williams, Mathew O'Callaghan, Pat O'Callaghan)

**Type of Development:** Residential Development

**Need for proposal:** Requirement for residential housing in the area.

**Planning Reference:** 22259

**Land Allocation in Local Plan:** Green field infill site.

**B2 Full details of proposed works on site that are to be covered by the licence (including a site plan at Section E7). The site may be inspected by an NPWS representative, so the details given should clearly reflect the extent of the project and leave no room for doubt. This information will be used to compare site conditions with the Method Statement.**

#### **Description of works**

The application site lies to the north of the Springfield Manor Development, east of Willow Dale and south of Hazel Close, Bay Estate, Dundalk. The proposed development consists of a total of 89no. dwellings (14no. 1-bed, 30no. 2-bed, 37no. 3-bed, 8no. 4-bed) comprising 60no. dwellings (15no. 2-bed, 37no. 3-bed, 8no. 4-bed) and 29no. apartments in a three-storey building (14no. 1-bed and 15no. 2-bed). A new vehicular access and a dedicated pedestrian access





## C Survey and site assessment

### C1 Pre-existing information on species at survey site

An initial survey was undertaken by Dr Niamh Roche in 2019– See Appendix I. At this time, no roosts were found, however she recommended a pre felling survey, prior to the removal of trees. We undertook this survey in 2024. At this point a soprano pipistrelle roost was found in some ash trees.

Previous bat observations from the area within 1km of the site, accessed from Bat Conservation Ireland

Ad-hoc observations					
Survey	Grid reference	Grid ref easting	Grid ref northing	Date	Species observed
BATLAS 2020	J069020678 1	306902	306781	25/08/2017	Pipistrellus spp. (45kHz/55kHz)

Previous bat observations from the area within 10km of the site, accessed from Bat Conservation Ireland – see attached file

BCIreland data: search results 1 Oct 2024					
Search parameters: Roosts Transects Ad-hoc observation sites with observations of all species within 10000m of J0683306275					
Roosts					
Name	Grid reference	Species observed			
Bellew's Castle, St Louis School Dundalk	J0308	Plecotus auritus			
Claremontpass Bridge	J1115	Myotis daubentonii, Myotis nattereri			
Commons Cross	O0399	Unidentified bat			
Conifer Tree, Drumad	J0716	Myotis nattereri			
Geoghegan Residence	H9903	Unidentified bat			
Jonesborough Bridge	J0614	Myotis daubentonii			
Jonesborough Bridge	J0614				
Navan house outbuilding	J0610	Myotis nattereri			
Transects					
Name	Grid reference start	Species observed			
Bridge Near Lurgankeel Transect	J0211	Pipistrellus spp. (45kHz/55kHz), Unidentified bat, Myotis daubentonii			

Cort Road Bridge Transect	J0009	Myotis daubentonii	
N77 (14) 2003-2008	N9996	Pipistrellus pygmaeus, Pipistrellus pipistrellus (45kHz), Myotis spp., Nyctalus leisleri	
N77 (6) 2009-	N9996	Pipistrellus pipistrellus (45kHz), Pipistrellus spp. (45kHz/55kHz), Nyctalus leisleri, Pipistrellus pygmaeus, Myotis spp.	
Stephenstown Bridge Transect	J0101	Unidentified bat, Myotis daubentonii	
Toberona Transect	J0309	Myotis daubentonii, Unidentified bat	
Ad-hoc observations			
Survey	Grid reference	Date	Species observed
BATLAS 2010	J0206	19/05/2008	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
BATLAS 2010	J0305	18/05/2008	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
BATLAS 2010	J0405	19/05/2008	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri
BATLAS 2010	H9810	23/07/2008	Myotis spp., Plecotus auritus
BATLAS 2010	J0408	13/07/2008	Nyctalus leisleri
BATLAS 2010	J0309	13/07/2008	Pipistrellus pygmaeus, Nyctalus leisleri, Myotis daubentonii
BATLAS 2010	J0601	13/07/2008	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri, Myotis daubentonii
BATLAS 2010	J0101	13/07/2008	Pipistrellus spp. (45kHz/55kHz), Myotis daubentonii
BATLAS 2010	J0814	13/07/2008	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri, Myotis daubentonii
BATLAS 2010	J0810	13/07/2008	Pipistrellus pygmaeus, Nyctalus leisleri
BATLAS 2010	J0211	13/07/2008	Myotis spp.
BATLAS 2010	J0115	13/07/2008	Pipistrellus pygmaeus, Nyctalus leisleri, Myotis spp.
BATLAS 2010	J1208	14/07/2008	Pipistrellus pipistrellus (45kHz), Nyctalus leisleri
BATLAS 2010	J1406	14/07/2008	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri, Myotis spp.
BATLAS 2010	J1607	14/07/2008	Pipistrellus pipistrellus (45kHz)
BATLAS 2010	J1606	14/07/2008	Pipistrellus pipistrellus (45kHz)
BATLAS 2010	J1614	14/07/2008	Pipistrellus spp. (45kHz/55kHz), Myotis spp.
BATLAS 2010	J1415	14/07/2008	Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2010	H9803	17/07/2008	Pipistrellus pygmaeus, Myotis daubentonii

BATLAS 2010	J0300	25/08/2017	Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	H9803	05/09/2018	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii, Pipistrellus spp. (45kHz/55kHz), Myotis mystacinus
BATLAS 2020	O0696	04/08/2017	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Nyctalus leisleri
BATLAS 2020	J0601	25/08/2017	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	J0101	25/09/2017	Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	J0602	25/08/2017	Pipistrellus pipistrellus (45kHz), Nyctalus leisleri, Myotis spp.
BATLAS 2020	J0606	25/08/2017	Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	J0508	25/08/2017	Nyctalus leisleri
BATLAS 2020	J0408	25/08/2017	Pipistrellus spp. (45kHz/55kHz)
BATLAS 2020	J0209	25/08/2017	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	J0810	05/08/2018	Pipistrellus pygmaeus
BATLAS 2020	J0210	29/08/2018	Pipistrellus pygmaeus, Myotis daubentonii, Myotis spp.
BATLAS 2020	J0810	13/08/2018	Pipistrellus pygmaeus
BATLAS 2020	J0211	05/08/2018	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
BATLAS 2020	J0211	29/08/2018	Pipistrellus pygmaeus
BATLAS 2020	J0013	04/08/2018	Pipistrellus pygmaeus
BATLAS 2020	J0814	05/08/2018	Pipistrellus pygmaeus
BATLAS 2020	J0814	19/08/2018	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii
BATLAS 2020	J0815	13/08/2018	
BATLAS 2020	J0815	13/08/2018	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
BATLAS 2020	J0115	12/09/2018	Pipistrellus pygmaeus
BATLAS 2020	J0815	05/08/2018	
BATLAS 2020	J0115	04/08/2018	Myotis daubentonii, Pipistrellus nathusii
EIS and Road Surveys - Conor Kelleher	J0705	07/10/2004	Plecotus auritus, Pipistrellus pygmaeus, Nyctalus leisleri
EIS surveys - Brian Keeley	J0409	24/10/2003	Pipistrellus pipistrellus (45kHz), Myotis daubentonii
EIS surveys - Brian Keeley	J0409	28/05/2004	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis daubentonii, Nyctalus leisleri
EIS surveys - Brian Keeley	J0509	28/05/2009	Pipistrellus pygmaeus, Pipistrellus pipistrellus (45kHz), Nyctalus leisleri



EIS Surveys - Niamh Roche	J0716	04/07/2007	Pipistrellus pygmaeus
EIS Surveys - Niamh Roche	J0716	04/07/2007	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
Faith Wilson	J0703	11/08/2006	Myotis daubentonii, Nyctalus leisleri, Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Plecotus auritus
Faith Wilson	J1207	2010-06-00	Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus, Myotis spp.
National Biodiversity Data Centre Bat Records	J1605	12/06/2018	Myotis daubentonii, Pipistrellus pygmaeus
National Biodiversity Data Centre Bat Records	J1107	28/06/2018	Nyctalus leisleri
National Biodiversity Data Centre Bat Records	J1209	07/08/2018	Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre Bat Records	J0101	09/08/2018	Myotis daubentonii, Nyctalus leisleri, Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	J0810	13/08/2018	Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	J0815	13/08/2018	Pipistrellus spp. (45kHz/55kHz), Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre Bat Records	J1605	25/07/2018	Myotis daubentonii, Pipistrellus spp. (45kHz/55kHz), Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre Bat Records	J0814	19/08/2018	Myotis daubentonii, Pipistrellus spp. (45kHz/55kHz), Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre Bat Records	J1508	01/04/2019	Pipistrellus spp. (45kHz/55kHz)
National Biodiversity Data Centre Bat Records	J0814	16/05/2019	Myotis spp., Pipistrellus pygmaeus, Pipistrellus pipistrellus (45kHz)
National Biodiversity Data Centre Bat Records	J0507	30/08/2022	Plecotus auritus
Niamh Roche	J0607	11/09/2006	Plecotus auritus
NPWS Calls	O1296	18/06/2009	Myotis mystacinus/brandtii, Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
NPWS roosts	O1196	04/08/2009	Plecotus auritus, Myotis mystacinus

Pilot Woodland Monitoring Scheme 2016-2017	J0815	18/08/2017	Myotis nattereri, Myotis mystacinus, Nyctalus leisleri, Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus
Pilot Woodland Monitoring Scheme 2016-2017	J0815	27/08/2017	Myotis mystacinus, Myotis daubentonii, Nyctalus leisleri, Pipistrellus pipistrellus (45kHz), Pipistrellus pygmaeus

## **C2 Status of the species in the local/regional area**

Common and/or soprano pipistrelles have been observed in the nearby surrounding area in 2017. The wider area has records of a wider variety of species, including Leisler's bats, common pipistrelles and soprano pipistrelles (all recorded during the survey) as well as other species including Whiskered bats, Daubenton's bats, Natterer's bats and brown long-eared bats.

## **C3 Objective(s) of survey**

To establish whether bat roosts were present on site, as well as whether bats were using the site for feeding and commuting. In particular, the survey would cover trees planned to be felled over the next week and whether they were in use as roosts. In the case of a roost being discovered, the tree concerned would be excluded from felling.

## **C4 Survey area**

The entire site area was surveyed.

## **C5 Habitat description [based on daytime visit(s); to include the roost and surrounding area for context]**

The survey area was largely cleared/infilled open yard (having formerly been a green field area) with little potential as a feeding site. All 4 site boundaries were bounded in part or fully by a treeline, as well as one east-west central treeline.

*WL2 (Treelines) semi- mature and mature trees*

*WL1 (Hedgerow)*

*GAI (Grassland)*

## **C6 Field survey**

### **C6.1 Methods**

The field survey took place up to 90 minutes after sunset, and then over the 90 minutes leading up to sunrise the following morning. This involved two specialist field ecologists using EchoMeter handheld bat detectors as well as a SongMeter Mini stationary detector.

All data was analysed by Wildlife Acoustics Kaleidoscope Pro software. All unidentified signals were identified to species level where there were adequate signals to allow this. Automatically identified files were checked in the case of uncommon species.

## C6.2 Timing

The survey took place on the night following 01/09/2024 and the morning of 02/09/2024.

## C6.3 Weather conditions

Weather was mainly dry with occasional drizzle.

## C6.4 Personnel

Surveyors on the night were Fionn Keeley BSc hon, MSc and Ferdia Keeley BSc hon of Wildlife Surveys Ireland, both experienced wildlife surveyors with particular experience in bat surveying. They were supervised by Donna Mullen D.E.N.V.S.P and Brian Keeley BSc hon .

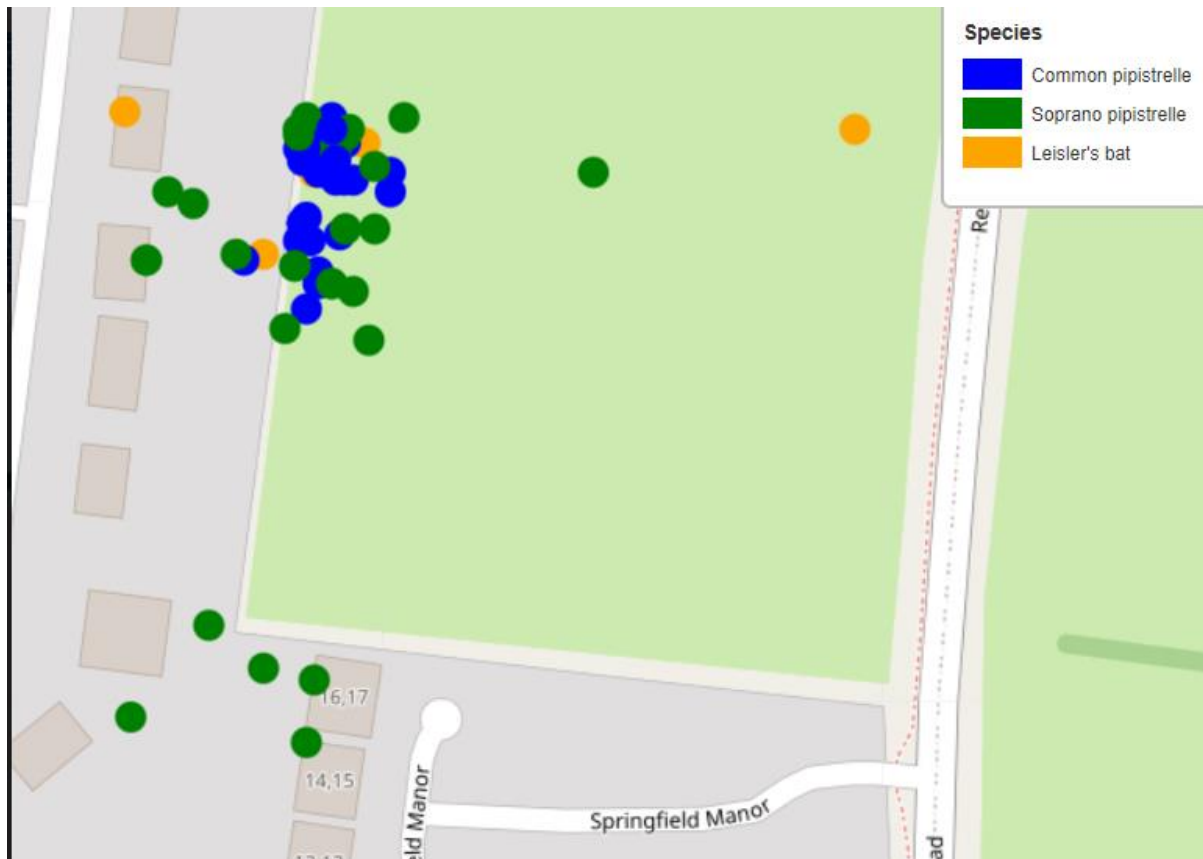
## C7 Results (to include raw data, any processed or aggregated data, and negative results as appropriate)

Bat activity on the night was mainly soprano and common pipistrelles, with brief Leisler's activity. Most of the treeline was identified as having little to no bat roost potential. Three trees (see attached maps) were identified as having some potential as roosts. A bat (likely a common or soprano pipistrelle, although no signal was recorded at this time) was seen near one of these at 20.28, possibly having emerged from the tree immediately before. A soprano pipistrelle (possibly the same bat from earlier) was seen near the same tree at 06.11. This bat flew around this tree and a neighbouring tree for several minutes, going out of sight on several occasions – during which time it may have gone inside the tree briefly. Another soprano pipistrelle was seen nearby for a few minutes but eventually left the site. The first soprano pipistrelle was not seen leaving the site and most likely went to roost in one of the two trees (again see maps).

DATE	TIME	MANUAL ID
01/09/2024	20:32:27	PIPPYG
01/09/2024	20:32:35	PIPPYG
01/09/2024	20:32:44	PIPPYG
01/09/2024	20:33:20	PIPIPI
01/09/2024	20:33:36	PIPPYG
01/09/2024	20:33:52	PIPPYG
01/09/2024	20:34:11	PIPPYG
01/09/2024	20:34:27	PIPIPI
01/09/2024	20:34:46	PIPIPI
01/09/2024	20:36:39	PIPPYG
01/09/2024	20:36:52	PIPPYG
01/09/2024	20:37:08	PIPPYG
01/09/2024	20:37:47	PIPIPI
01/09/2024	20:37:59	PIPIPI

01/09/2024	20:38:21	PIPPIP
01/09/2024	20:38:33	PIPPIP
01/09/2024	20:38:46	PIPPIP
01/09/2024	20:38:59	PIPPIP
01/09/2024	20:39:08	PIPPIP
01/09/2024	20:39:19	PIPPIP
01/09/2024	20:39:27	PIPPIP
01/09/2024	20:39:31	PIPPIP
01/09/2024	20:39:53	PIPPIP
01/09/2024	20:40:10	PIPPIP
01/09/2024	20:41:46	PIPPIP
01/09/2024	20:42:08	PIPPIP
01/09/2024	20:42:24	PIPPIP
01/09/2024	20:43:06	PIPPIP
01/09/2024	20:49:54	NYCLEI
01/09/2024	20:56:24	NYCLEI
01/09/2024	21:17:43	NYCLEI
01/09/2024	21:22:50	PIPPYG
01/09/2024	21:26:52	PIPPIP
01/09/2024	21:27:08	PIPPIP
01/09/2024	21:29:23	PIPPYG
01/09/2024	21:32:43	PIPPIP
01/09/2024	21:37:24	NYCLEI
02/09/2024	05:28:15	PIPPYG
02/09/2024	05:30:36	PIPPIP
02/09/2024	05:32:41	PIPPIP
02/09/2024	05:45:28	PIPPIP
02/09/2024	05:45:38	PIPPIP
02/09/2024	05:49:49	PIPPIP
02/09/2024	06:07:11	NYCLEI
02/09/2024	06:08:42	PIPPIP

02/09/2024	06:08:56	PIPPIP
02/09/2024	06:10:54	PIPPYG
02/09/2024	06:11:07	PIPPYG
02/09/2024	06:11:13	PIPPYG
02/09/2024	06:11:21	PIPPYG
02/09/2024	06:11:30	PIPPYG
02/09/2024	06:11:35	PIPPYG
02/09/2024	06:11:48	PIPPYG
02/09/2024	06:12:06	PIPPYG
02/09/2024	06:12:13	PIPPYG
02/09/2024	06:12:29	PIPPYG
02/09/2024	06:12:44	PIPPYG
02/09/2024	06:15:21	PIPPYG
02/09/2024	06:17:14	PIPPYG
02/09/2024	06:18:30	PIPPYG
02/09/2024	06:19:54	PIPPYG
02/09/2024	06:20:58	PIPPYG
02/09/2024	06:21:02	PIPPYG
02/09/2024	06:21:08	PIPPYG
02/09/2024	06:21:36	PIPPYG
02/09/2024	06:22:54	PIPPYG
02/09/2024	06:23:07	PIPPYG



## C8 Interpretation and evaluation

The trees are growing together in a group of stems. One or both trees specified is a soprano pipistrelle roost. While only one bat was seen entering, other soprano pipistrelles were seen flying around the trees before sunrise, which may have been swarming behaviour indicating that they were considering entering the same roost. The roost space within the tree does not appear to be extensive, and is most likely not a suitable breeding roost; however, only a ground-level examination was possible during the survey and further inspection should be carried out via hoist.

### C8.1 Presence/absence

#### Present in Roost

Soprano pipistrelle – *Pipistrellus pygmaeus*

#### Present on site

Soprano pipistrelle – *Pipistrellus pygmaeus* – feeding/commuting and roosting

Common pipistrelle – *Pipistrellus pipistrellus* – feeding/commuting

Leisler's bat – *Nyctalus leisleri* – feeding/commuting

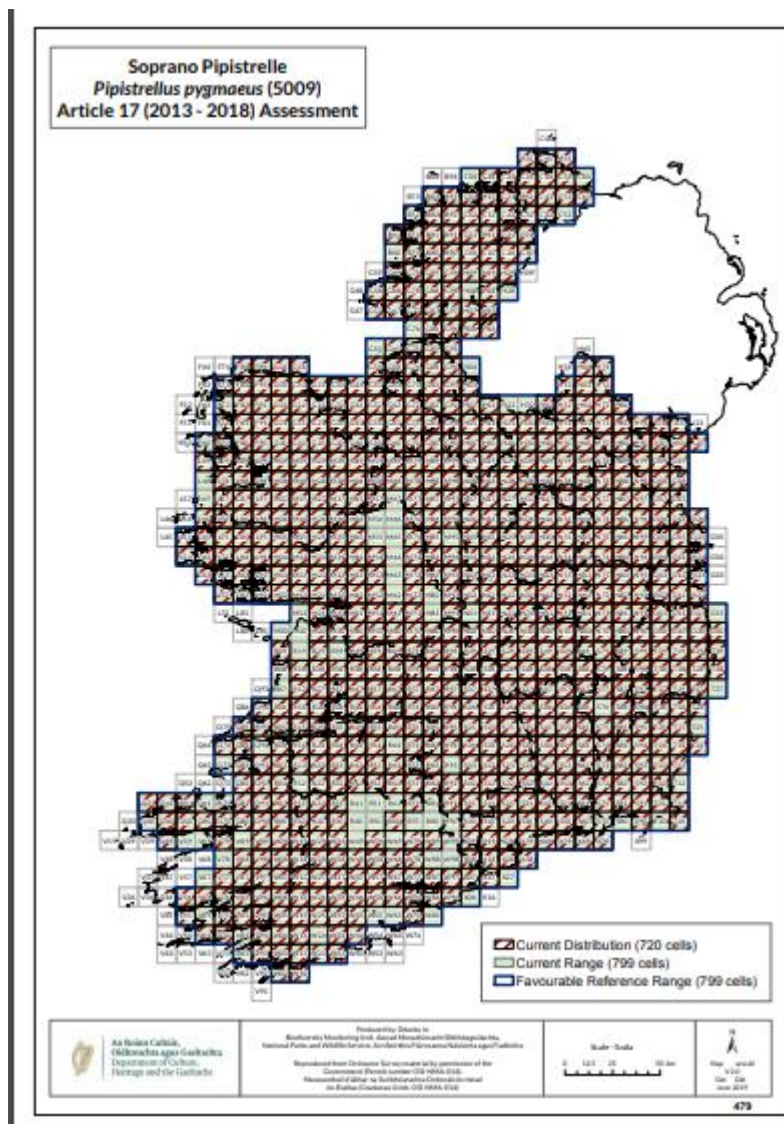
### C8.2 Population size class assessment

Soprano pipistrelle – roosting population – 2 individuals on site.

Data from Article 17 reports on the status of soprano pipistrelles in Ireland.

## Soprano pipistrelle

The soprano pipistrelle is the most widespread bat species on the island of Ireland. Recent estimates for this species suggest a population size in the order of 500,000 – 1,000,000 animals. Ongoing car-based bat monitoring provides evidence for a significant increase 477 5009 Soprano Pipistrelle (*Pipistrellus pygmaeus*) in the population; there is no evidence of any decline in Range or Habitat. Furthermore, there is no indication of any major pressures currently impacting populations, and Future prospects are considered good. Overall, the species is assessed as Favourable, and the overall trend is demonstrating an on-going increase. There were no qualifiers for Favourable assessments in 2013



Range of Soprano pipistrelle

### C8.3 Site status assessment (combining quantitative, qualitative, functional and contextual factors)

One of the trees concerned is highly likely to be a roost for individual pipistrelle bats, although there was not enough activity to suggest the presence of a larger colony. Feeding and commuting bats are using other parts of the site during the night.

#### **C8.4 Constraints (factors influencing survey results)**

(1) Mobility of bats – Bat species are mobile and can move from roost to roost, depending on roost availability, feeding availability and weather conditions. They may move to roosts which have not been identified in this report in order to hibernate or create mating or feeding perches. A bat survey is a snapshot of bat activity over the survey time.

(2) Identification of bats- It can be difficult to differentiate Myotis species. For this reason, sound files are included within the report. Brown long eared bats are very quiet, and their presence can be overlooked in bat surveys as they may not register on bat detectors.

(3) Timing of survey. Bat surveys generally take place when the bats are active – May – September. A bat survey which takes place outside these dates may miss roosting activity. Because of this the precautionary principle is applied and trees will be checked manually for roosting bats prior to any felling.

#### **C9 Map(s) of survey area (with habitat description, marking structures or features examined; summary of survey results marked on map if appropriate. Map should show area on an Ordnance Survey (or similar) base-map)**



*Site map showing trees surveyed*

*Left map – site area*

*Centre map – roost potential of trees surveyed*

*Right map – Tree roosts*

*Red line – site boundary*

*Yellow highlight – surveyed trees*

*Green highlights (in centre map) – trees marked as category 3 (other trees are category 4)*

*Blue highlights (in right map) – trees marked as roosts or very likely roosts*



C10 Cross-referenced photographs of key features (if appropriate)



Photos showing trees identified as roosts (see map #3 for location).

## D Impact assessment

### D1 Pre- and mid-activity impacts

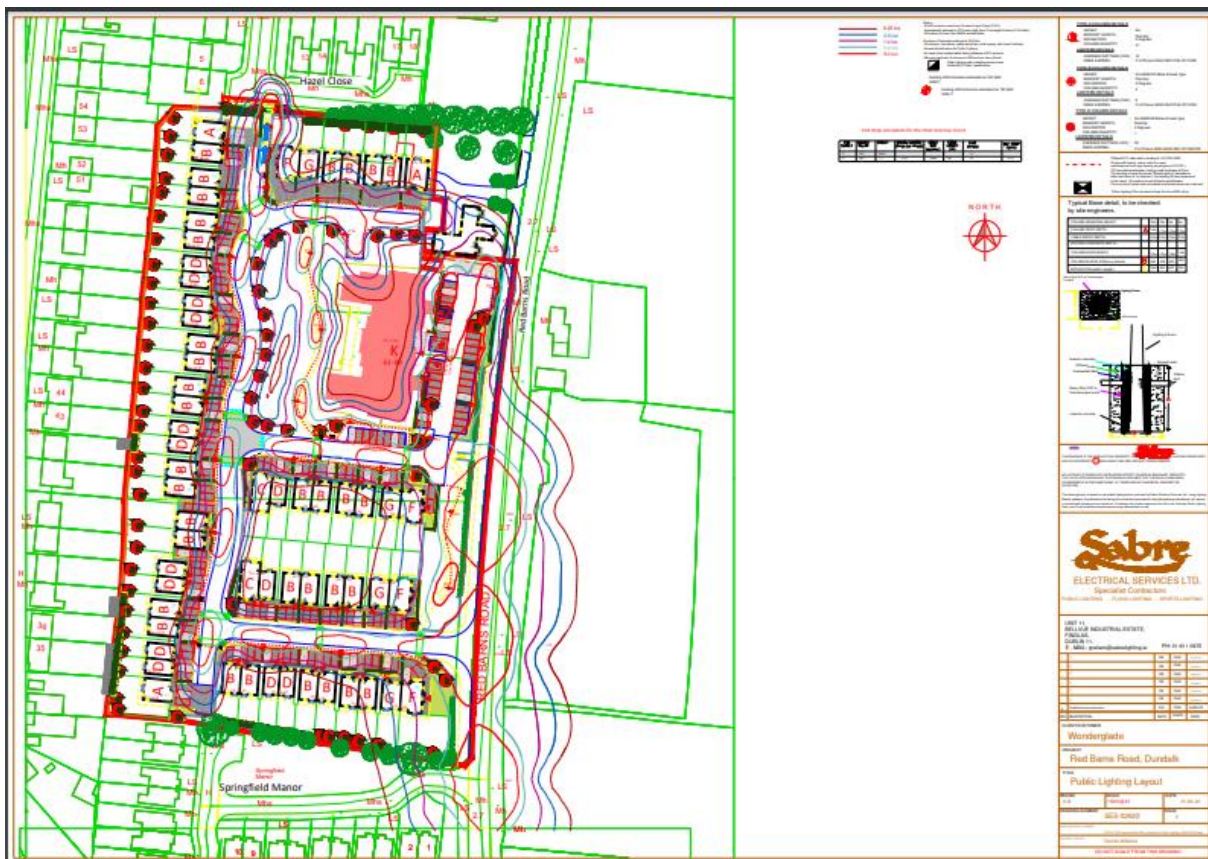
Felling and/or removal of tree roosts carries the risk of killing roosting bats that are using the structure.

### D2 Long-term impacts [roost or habitat loss, modification, fragmentation, etc.]

Felling a tree roost such as the stated roosts above would have a long-term negative impact on local bats, as well as potentially being in breach of the Wildlife Act without proper derogation. Felling trees along the hedgerow also has the potential to cause fragmentation of feeding habitat.

### D3 Post-activity interference impacts [disturbance etc.]

Lighting introduced as part of the new development could cause long-term fragmentation of feeding and commuting habitat by disrupting flight paths. See lighting plan below.



### Horizontal Illuminance (lux)

Grid 1

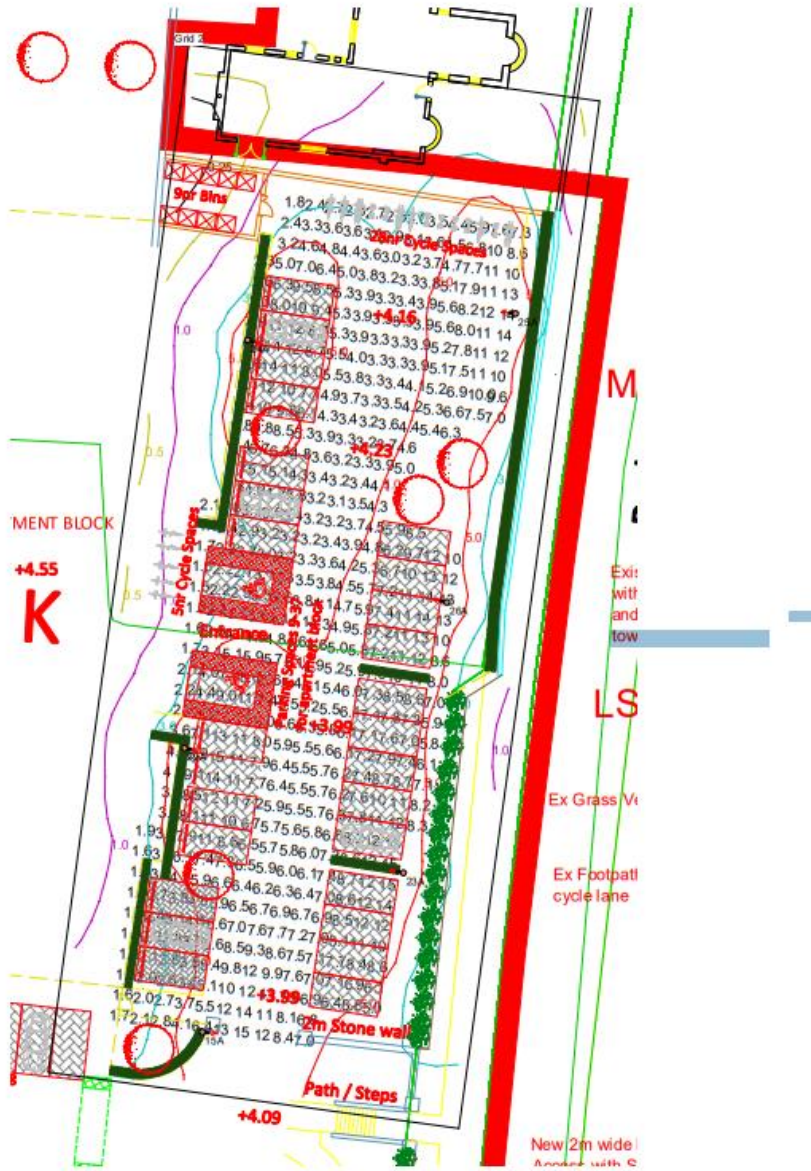


**Results**

Eav	5.18
Emin	1.01
Emax	16.18
Emin/Emax	0.06
Emin/Eav	0.20

### Horizontal Illuminance (lux)

Grid 2

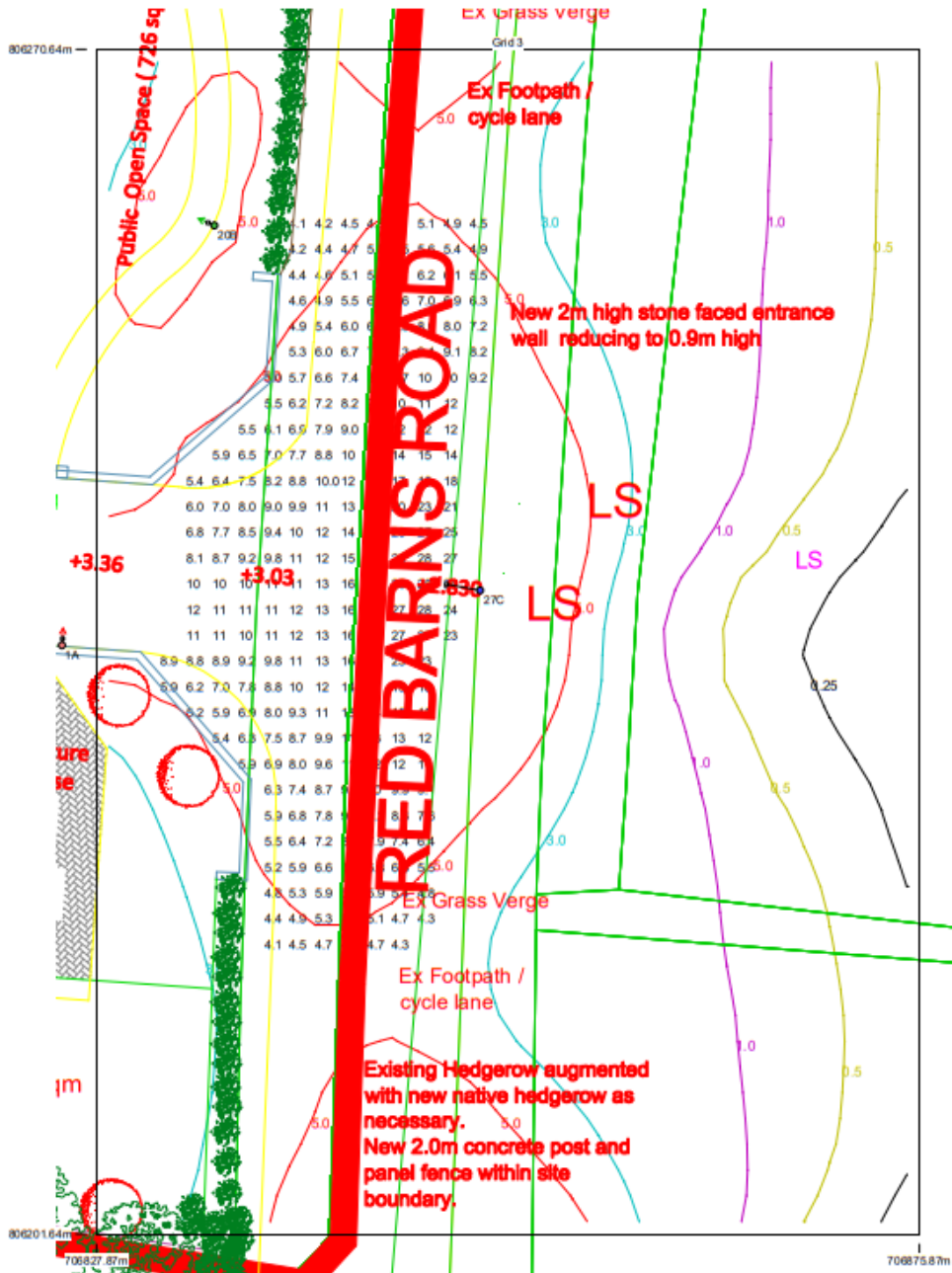


**Results**

Eav	6.29
Emin	1.54
Emax	15.35
Emin/Emax	0.10
Emin/Eav	0.25

### Horizontal Illuminance (lux)

Grid 3

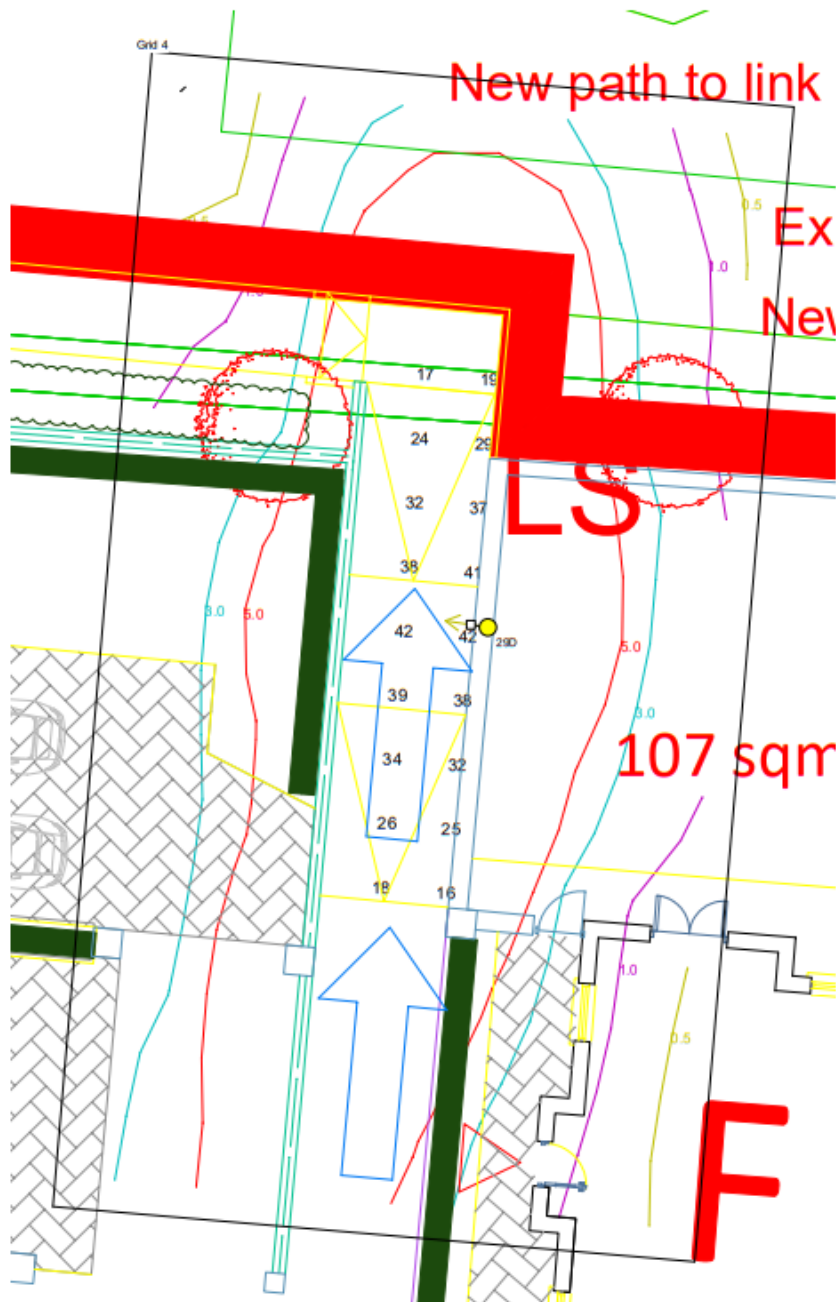


#### Results

Eav	10.11
Emin	4.06
Emax	28.29
Emin/Emax	0.14
Emin/Eav	0.40

### Horizontal Illuminance (lux)

Grid 4



#### Results

Eav	30.49
Emin	16.30
Emax	42.16
Emin/Emax	0.39
Emin/Eav	0.53

#### D4 Other impacts

#### D5 Summary of impacts at the site level

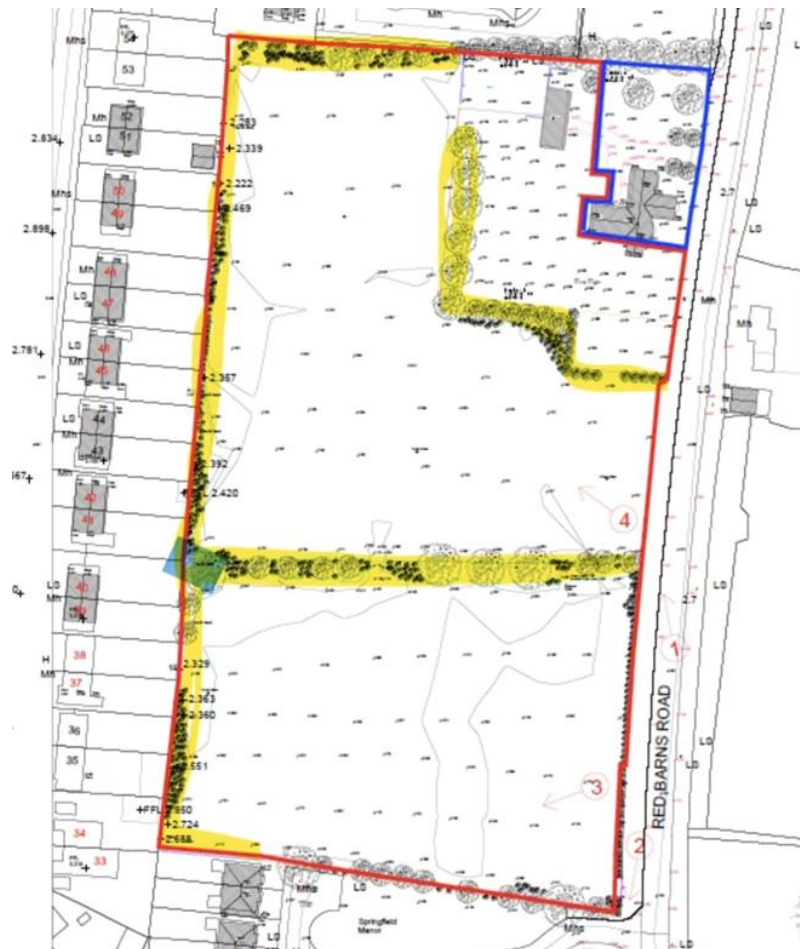
Impacts related to tree felling could include roost loss and injury or death of bats.

Other impacts could include fragmentation or disruption of feeding and commuting habitat.

#### D6 Summary of impacts in a wider context

Soprano pipistrelles are more commonly encountered. Loss of a roost site would be locally significant were it to be permanent.

#### D7 Plans or maps to show impacts (clear indication of which areas would be affected and how)



The trees in the blue box will be removed.

**E Alternative solutions examined**

**E1 List of alternative solutions examined**

Retention of the trees – this is not possible as the trees are suffering from ash dieback and one has a large hollow, making the trees unsafe. See photo's below





**E2 details of each alternative and how it addresses the impacts described in Section D. Include any residual impacts which the solution does not address**

Retaining the tree would protect the roost, but only for a short time, as the tree is dying.

**E3 Feasibility of each alternative in the context of the overall development**

There is no alternative solution to removal of the trees

**E4 Reasons for accepting/rejecting each alternative solution IWM 134 (2022) Bat Mitigation Guidelines 68**

The trees are dying and unsafe

**E5 Conclusions regarding alternative solutions. (Any remaining mitigation measures arising from a chosen alternative solution may be addressed in Section F below).**

There was no alternative solution - the trees are dying and have large crevices, making them unsafe.

**F Mitigation and compensation**

**F1 Mitigation strategy (overview of how the impacts will be addressed in order to ensure no detriment to the maintenance of the population at a favourable conservation status)**

**F2 Replacement roost site selection**

As stated in Condition 15 of the “Notification of decision to grant” and “Initial bat survey report,” there are 5 bat boxes that will be erected in the development and proposed landscaping will use native tree’s shrubs and herbaceous species in order to encourage and maintain existing bat populations in the area.

**F2.1 Existing species status (give survey data)**

Soprano pipistrelle – *Pipistrellus pygmaeus* – feeding/commuting and roosting onsite, at least 1 individual but potentially more on occasion

Common pipistrelle – *Pipistrellus pipistrellus* – feeding/commuting

Leisler’s bat – *Nyctalus leisleri* – feeding/commuting

**F2.2 Location, ownership and status**

5no. Schwegler 1FF boxes will be placed securely in south east, south west or south facing positions on buildings or trees at various locations that are unlit at night around the site. They are placed at heights of 3-4m. The management company will take ownership of these bat boxes and the maintenance of same.

**F2.3 Habitat description, size, boundaries**







**F4 Capture and exclusion**

Capture and exclusion of bats may become necessary should any roosting bats be discovered within the tree immediately prior to felling (subject to inspection by a trained bat ecologist with a suitable bat handling licence). If this is needed, said ecologist will carry out the removal of the bat from the tree cavity, and place it into one of the new bat boxes installed onsite.

**F4.1 Timing, effort, methods, capture/exclusion methods**

The tree will be inspected by a surveyor prior to felling, with a hoist if necessary, and a tree shears will be carefully used to remove the trunk areas. Bats will be removed by hand if necessary. The felling will take place between October 2024 and March 2025.

**F5 Post-development site safeguard****F5.1 Roost management and maintenance (either set out details here, or if complex then give outline here and give details as an annexed stand-alone plan)**

Initial roost monitoring will be by Wildlife Surveys Ireland – Brian Keeley for Carlinn Developments.

**F5.2 Population monitoring**

Carlinn Developments (Contractor)

**F5.3 Mechanism for ensuring delivery (who will undertake the work and reporting details)**

Carlinn Developments (Contractor) will undertake any works including these onsite and will include any reporting that is required.

**F6 Timetable of works (phasing diagram to include all works associated within section E, and to indicate construction works timing)**

**Site Clearance** – Sep 24 – Dec 24

**Sub Structures** – Oct 24 – Feb 25

**Superstructures** – Jan 25 – Oct 25

**Internal fit out works** – Mar 25 to Jun 26

**Snagging** – April 26 – June 26

**Handover** – June 26

Job No: 2245  
 Job Name: Red Barns Road  
 Location: Red Barns Road, Dundalk, Co. Louth  
 Client: Wordingale



Description of Works	Timeframe in Months																							
	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26		
Site clearance																								
Sub Structures																								
Superstructures																								
Internal Fit out works																								
Clad Works																								
Signage																								
Handover																								

**F7 Site plan to show all work covered by the licence**

Site plan attached with this document.



**F8 Map to show the extent of each parties interest on site (if appropriate)**

Site plan .







**F11 Map to show post activity management (if appropriate)**

**F12 Diagram to show exclusion apparatus (only required if non-standard techniques are proposed) IWM 134 (2022) Bat Mitigation Guidelines 69 G Summary**

**G Summary of development and mitigation (NB to include overall consideration of the three main licensing criteria: effect on conservation status, purpose, and alternatives) [for details see 2. Legislation and licensing]**

#### **Site Clearance & Building Demolition**

1. The tree roost must be removed between Oct 2024 and March 2025, under supervision from an ecologist.
2. A derogation licensing is required under Section 23 (7) (iv) of the Wildlife Act
3. All bats are protected under wildlife legislation and it is an offence to intentionally harm or injure a bat or to disturb its resting place. Therefore, if any bats are discovered during works, which may occur as bats are highly mobile animals, please cease the work and contact a trained licensed bat worker for advice on how to proceed.
4. Retain external boundary hedgerows where possible – these are essential commuting corridors for bats in the landscape.

#### **Site Development**

5. As a result of the site's peri-urban location it is already impacted by light pollution from both direct and diffuse artificial night light sources. This may (negatively) impact the activity of bats in the locality. Lighting profoundly impacts natural ecosystems, by drawing invertebrates into the lighting cones, preventing completion of invertebrate lifecycles and causing an overall reduction in insect diversity. Most Irish bat species, with the exception of Leisler's bat, avoid lit areas, preferring to fly and forage in dark places wherever possible. In order to minimise negative impacts of street lighting from the new development, mercury vapour or metal halide lamps are not

recommended. Candela/Lux levels should be as low as possible while still ensuring health and safety considerations are met. Filters, hoods or louvres should be used to minimise spill (upwards or backwards) into green spaces which include soft landscaped areas, tree lines, tree canopy and boundary hedgerows, or any locations where lighting is not needed.

6. Up-lighting of buildings for aesthetic purposes is not recommended.

7. Only use lighting within green spaces if absolutely necessary. Low level directional bollards with lamps that light only pathways may be used for pedestrian paths.

8. Consideration should be given to sensor-activated pedestrian lighting as both a carbon saving and wildlife friendly option.

### **Site Commissioning**

9. For landscaping use native tree, shrub and herbaceous species in order to encourage diverse insect prey and therefore maintain existing bat populations in the area.

10. Erect bat boxes in the development in order to encourage roosting bats. 5 x Schwegler 1FF boxes should be placed securely in south-east, south-west or south-facing positions on buildings or trees at various locations that are unlit at night around the site. They can be placed at heights of 3-4m. These bat boxes do not require yearly maintenance although it is recommended that their fastenings are checked every 6-12 months for safety purposes.

### **Predicted Impacts After Mitigation**

(1) Loss of feeding and commuting habitat. With the mitigation in place, there will still be a moderate residual long term effect on local bat populations, as it will take several years to reestablish the canopy and insect diversity which is found in the mature ivy clad trees. This will lead to a moderate long term negative residual effect on individual bats.

(2) Loss of roosting habitat – The provision of bat boxes on site will mitigate the effects of any roost loss. There will be a mild long term negative effect on roosting bats.

(3) Light Pollution – Even with the measures listed, there will still be some light pollution. There will be a moderate negative long term negative residual effect on individual bats.

## H References

Surveys are designed with reference to the recognised documents below:

- Heritage Council's Bat Survey Guidelines for the Traditional Farm Buildings Scheme
- National Parks and Wildlife's Bat Mitigation Guidelines for Ireland
- Bat Surveys: Surveying Buildings (Including Bat Identification) Developed on behalf of the Bat Conservation Trust
- English Nature's Bat Mitigation Guidelines
- - Bat surveys for Professional Ecologists - good practice guidelines; fourth edition (2023); Bat Conservation Trust; London.
- - A conservation plan for Irish Vesper Bats , Irish Wildlife Manual No. 20; National Parks and Wildlife Service; Department of Environment, Heritage and Local Government. - The status of E.C. Protected Habitats and Species in Ireland - Conservation status in Ireland of habitats and species listed in the European Council directories on Conservation of Habitats; Flora and Fauna 92/43/EFC. ( Department of Environment, Heritage and Local Government) –
- Bat Mitigation Guidelines for Ireland (Irish Wildlife Manual no.25) Department of Environment, Heritage and Local Government.

**J Annexes**

**J1 Management and maintenance plan**

I have attached the Management and maintenance plan with this document.

**J2 Pre-existing survey report(s)**

**Initial report on the site by Dr Niamh Roche**

**BAT SURVEY**

**Rose Cottage, Red Barn Road, Dundalk**

**Survey and Report Completed by**

**Dr Niamh Roche MCIEEM**

**Grangegeeth**

**Collon**

**Drogheda**

**Co. Meath**

**A92R504**

**Tel: 087 8170373**

**Email: niamh.roche@demersal.net**

**First Draft 29th August 2019**

**Revised 16th October 2019**

**Final 21st October 2019**

## INTRODUCTION

Rose Cottage and the fields surrounding the existing house are proposed for a residential development. A bat survey was recommended as further information request by Louth County Council (July 2019) in order to determine the importance of the site for bats, to highlight any risks to bats or bat resting places, and minimise any potential impact on bat roosting and foraging habitats as a result of the development.

The site consists of a single storey bungalow, a single storey shed, a domestic garden and two fields with rank grassland which are bounded by semi-natural broadleaved hedgerows. Red Barn Road lines the eastern boundary of the site, while residential developments are present around all three other boundaries.

At the request of Denis Williams, the applicant, a bat survey of the site was completed in August 2019 to determine whether bats use any structures on the site for roosting and if so, to ensure that any bats present are protected, roosts are retained where possible or unavoidable losses are mitigated-against under licence. In addition an assessment of the site was also made to determine the significance of the site for bats and whether mitigation measures need to be incorporated in order to prevent negative impact

## Background

Various legal instruments such as The Wildlife Acts (1976 and amended 2000) and provide protection for species of conservation importance, such as bats. The EU

Habitats Directive (92/43/EEC) lists all Irish bat species in Annex IV and one Irish species, the lesser horseshoe bat (*Rhinolophus hipposideros*), in Annex II. Annex II includes animal species of community interest whose conservation requires the designation of Special Areas of Conservation (SACs) because they are, for example, endangered, rare, vulnerable or endemic. The lesser horseshoe bat does not occur in Co. Louth.

Annex IV of the Habitats Directive lists various species, including all the bat species, which require strict protection. Ireland is also a signatory to a number of conservation agreements pertaining to bats such as the Bern and Bonn Conventions. The Agreement on the Conservation of Populations of European Bats (EUROBATS) is an agreement under the Bonn Convention.

Eight bat species have been confirmed in County Louth. These are:

- ☐ Common pipistrelle, *Pipistrellus pipistrellus*
- ☐ Soprano pipistrelle, *P. pygmaeus*
- ☐ Nathusius' pipistrelle, *P. nathusii*
- ☐ Leisler's bat, *Nyctalus leisleri*
- ☐ Brown long-eared bat, *Plecotus auritus*
- ☐ Daubenton's bat, *Myotis daubentonii*
- ☐ Natterer's bat, *Myotis nattereri*
- ☐ Whiskered bat, *Myotis mystacinus*

No bat records were available for the site or its environs ([batconservationireland.org](http://batconservationireland.org)).

#### Habitat of the Site

The site consists of two former agricultural fields surrounded mainly by mature broadleaved hedgerow/treelines. In addition to this there is some grassland formerly managed as a lawn within the garden surrounding Rose Cottage. There is no open water or woodland on the site.

Common and adaptable bat species such as the pipistrelles (*Pipistrellus pipistrellus* and *P. pygmaeus*) and Leisler's bat (*Nyctalus leisleri*) could be expected from the

area.

There is street lighting along Red Barn Road; many Irish species are deterred by the presence of artificial night lighting.

## METHOD

During the daytime the site was walked systematically while examining the site for possible bat roosting locations. Accessible locations were checked for bats using torchlight where possible, the attic of the house was checked, as were the internal spaces of the shed.

A daytime bat survey relies on the identification of bat species from:

- ☐ droppings and urine stains (droppings may be found on floors of unused rooms, the floor and tie beams of attics, on walls and clear surfaces in outbuildings etc., urine stains are usually found on polished wooden furniture such as church pews),
- ☐ insect wings or beetle elytra which have been discarded by feeding bats,
- ☐ dead bats, or
- ☐ torpid bats (usually these bats are tucked into crevices and are not visible)
- ☐ active bats – which make audible social calls

The site was then the subject of a passive bat survey from the evening of August 2nd 2019 to the evening of August 8th, and an active bat survey on the evening of August 8th 2019. These surveys were carried out using bat detectors which are instruments that convert bats' high frequency echolocation calls into sounds audible to the human ear or record bat sounds as sound files that can be subsequently analysed.

The active bat survey was carried out using a handheld Bat Box III tuneable detector. This was used to record bat activity on August 8th from sundown for 2.5 hours including 15 minutes preceding sundown.

A passive SM2 Detector was placed at the base of the westerly garden boundary in order to record activity in the vicinity of the house and tree lines and to increase the

likelihood of detecting bats emerging or returning from any roosts in the vicinity. This detector was left recording for six nights from August 2nd to 8th 2019.

The active bat survey concentrated on the house and shed immediately after sundown. In addition, a walked survey was carried out around the fields to determine the extent and diversity of bat activity throughout the site.

Wav files from the passive SM2 detector were then analysed using Kaleidoscope Pro. Bats were identified to species level where possible.

Weather during the week of passive surveying was good with relatively high temperatures and no rain. Weather during the active survey was also good, the temperature at dusk on August 8th 2019 was 16°C, well above the minimum required for bat flight (>8°C). Rain began approximately two hours post sundown. The day had been warm, dry and calm.

## RESULTS

### Bats Observed

The SM2 recorded over 680 wav files during the six nights of recording. Bats were recorded throughout the night on the site. The majority of bat calls (427) were those of common pipistrelles (*P. pipistrellus*), with some soprano pipistrelles (*P. pygmaeus*; 177 calls). A small number of Leisler's bats (*Nyctalus leisleri*; 16 calls) were also picked up on occasion. Two *Myotis* species calls, possibly Daubenton's bats (*Myotis daubentonii*), were also recorded.

Bat activity on the evening of the survey was observed from 21.35hrs onwards. The first bat observed was a common pipistrelle (*Pipistrellus pipistrellus*) followed by a soprano pipistrelle (*Pipistrellus pygmaeus*). Several bats of these two species were subsequently observed foraging along the hedgerows of the site.

### Significance of Rose Cottage and Environs for Bats

There is no evidence that any buildings on the site are used by bats for roosting.

There is evidence for the presence of common bat species in flight around the site, particularly along the hedgerows.



In general, the site is not considered of conservation significance for bats. However, since the hedgerows of the site are used by bats for commuting or foraging measures must be taken to minimise the potential for loss of bat activity at the site. It should be borne in mind that bats are highly mobile species and can regularly move roosting sites. Therefore, during refurbishment of Rose Cottage and during demolition of the shed on site, contractors should be mindful of the potential presence of bats and if any are found works should cease and a trained licensed bat worker or local wildlife conservation ranger contacted.

Boundary hedgerows on the site are planned for retention and supplementary planting with native species. This will ensure that landscape connectivity is maintained, provided the boundary hedgerows are not subject to increased Artificial Light at Night (ALAN).

#### RECOMMENDED MITIGATION MEASURES

##### Site Clearance & Building Demolition

1. No restrictions on timing of works are suggested (although note that trees, shrubs and hedgerows should not be removed within the nesting period for birds March 1st to August 31st each year, inclusive in order to comply with the Wildlife Act).
2. No derogation licensing is required under Section 23 (7) (iv) of the Wildlife Act 1976 since no confirmed bat roosts will be lost from the site.
3. All bats are protected under wildlife legislation and it is an offence to intentionally harm or injure a bat or to disturb its resting place. Therefore, if any bats are discovered during works, which may occur as bats are highly mobile animals, please cease the work and contact a trained licensed bat worker for advice on how to proceed.
4. Avoid tree felling on site wherever possible – this is because bats may use trees for roosting from time to time, so mature trees should be retained. Any tree with a diameter at breast height (DBH) of >30cm that is due to be felled should be assessed for the presence of bat roosts within 24hrs prior to felling.

Due to their densely branched nature, Leylandii trees are not included in this requirement for assessment prior to felling as they are very unlikely to be used by bats for roosting.

5. Retain external boundary hedgerows where possible – these are essential commuting corridors for bats in the landscape.

#### Site Development

6. As a result of the site's peri-urban location it is already impacted by light pollution from both direct and diffuse artificial night light sources. This may (negatively) impact the activity of bats in the locality. Lighting profoundly impacts natural ecosystems, by drawing invertebrates into the lighting cones, preventing completion of invertebrate lifecycles and causing an overall reduction in insect diversity. Most Irish bat species, with the exception of Leisler's bat, avoid lit areas, preferring to fly and forage in dark places wherever possible. In order to minimise negative impacts of street lighting from the new development, mercury vapour or metal halide lamps are not recommended. Candela/Lux levels should be as low as possible while still ensuring health and safety considerations are met. Filters, hoods or louvres should be used to minimise spill (upwards or backwards) into green spaces which include soft landscaped areas, tree lines, tree canopy and boundary hedgerows, or any locations where lighting is not needed.

7. Up-lighting of buildings for aesthetic purposes is not recommended.

8. Only use lighting within green spaces if absolutely necessary. Low level directional bollards with lamps that light only pathways may be used for pedestrian paths.

9. Consideration should be given to sensor-activated pedestrian lighting as both

10. For landscaping use native tree, shrub and herbaceous species in order to encourage diverse insect prey and therefore maintain existing bat populations in the area.

11. Erect bat boxes in the development in order to encourage roosting bats. 5 x Schwegler 1FF boxes should be placed securely in south-east, south-west or south-facing positions on buildings or trees at various locations that are unlit at

night around the site. They can be placed at heights of 3-4m. These bat boxes do not require yearly maintenance although it is recommended that their fastenings are checked every 6-12 months for safety purposes.



Figure 1: Shed beside Rose Cottage, checked for signs of roosting bats on August 2nd 2019.



Figure 2: Broadleaved trees (in the background) along the northern boundary, proposed for retention where possible, at Rose Cottage, Red Barn Road, August 2019.



Figure 3: Hedgerow/treeline (in the background) along the western boundary proposed for removal and replanting with native species, Red Barn Road, August 2019. Agricultural land in the foreground will be cleared and developed.