



## **Bat activity within the site proposed for a warehouse in Bluebell Industrial Estate. Bluebell, Dublin**

Brian Keeley

Wildlife Surveys Ireland

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### **Introduction**

Bats are a widespread element of the Irish fauna. They are known to occur from much of the rural landscape and to a lesser extent, the urban environment and here they occupy buildings and occasionally trees for short or long periods. Houses, walls and other constructions are a vital element of the annual cycle of all Irish bat species and at no time more so than the period May to August, but many bats may also avail of buildings as hibernation sites. In sites such as the proposed development site where there are no buildings, there is still the potential for roosting within trees or within nearby houses and feeding within the site proposed for development. Changes to a site including building demolition or renovation and tree and hedge removal may reduce the options available to bats as a roosting site, place bats at risk of injury or death 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 from unintentional harm 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.

Development of the site at Bluebell Industrial Estate will see the removal of the existing vegetation which is extremely sparse and is primarily a patch of heavily trodden grass. Buildings around the site may provide a variety of roosting opportunities for bats for various elements of the annual cycle. This assessment will address the potential for bat roosting within the site (trees and building) and identify the potential for impacts upon bat feeding and commuting within the lands that form the proposed site of construction based upon a visual assessment of the lands and a walkover bat detector survey to determine the potential for roost sites within the building and trees on site based on bat emergence and return behaviour.

Surveying in June is a highly suitable period to look at the breeding season when when females are beginning to investigate maternity roost sites (the largest roost type (in the Irish context)). These roosts are typically in close proximity or within areas of good feeding. A bat detector assessment at this time can disclose the value of a site for feeding and how bats avail of a site in commuting to and from important sites including feeding sites and roosts.

This assessment has been carried out on the proposed development off Bluebell Avenue, Bluebell Industrial Estate, Dublin 12 comprising 189 sq.m of warehouse space and 89 sq.m of ancillary office space submitted by P + S Machinery (SD21A/0329). A summary is given below of concerns expressed by South Dublin County Council relating to the proximity of the proposed warehouse to the Grand Canal and any ecological consequence of this in view of the City Edge Project and local bat fauna and ecological greenway formed by the Canal.

The City Edge Project will see significant changes to the structure of this area and will engage the Grand Canal as an important ecological connection between the inner Dublin areas of the city and the less densely populated areas. It is important to ensure that any proposals are consistent with the aim of ensuring a biodiverse city. The following are the observations made by South Dublin County Council on the proposed construction:

### **PR/0603/22**

#### **Record of Executive Business and Chief Executive's Order**

##### ***Visual Impact***

The proposed development would have a pitched roof height of c.7.0 metres and would be c.24.0 metres in length at its largest point with a width of c12.4 metres. At two storeys (c.7.0m) the height of the proposed warehouse with pitched roof will broadly align with the height of the adjacent warehouse to the south-west. At two storeys the height of the proposed warehouse will be set one storey lower than the height of the adjacent three storey warehouse to the south-east.

The area is primarily industrial in nature. The northern site boundary is comprised mainly of a high block wall (c.3.5m) which kinks slightly northwards towards the Canal. The south-eastern site boundary also comprises of a high block boundary wall (c3.5m). Generally the proposal will not have a significant adverse visual impact and would broadly integrate with the other existing landuses in the vicinity. However, the application proposes to retain the existing palisade fence and sliding gate that form the front boundary treatment on the south-west site boundary. However, there is no planning permission traced for this existing palisade boundary treatment and in any event considering the site is located within the City Edge Project area and is zoned 'REGEN' which seeks '*To facilitate enterprise and/or residential-led regeneration*' a new visually improved boundary treatment would be required. It is considered this may be addressed by way of a request for **Additional Information** whereby the applicant is requested to submit revised scaled drawings clearly showing the replacement of this palisade fence with a new visually improved fence. This new improved fence could take the form of a black round bar railing to be set onto a concrete plinth.

**Compliance with City Edge Project,**

The Forward Planning City Edge Delivery Team has recommended **Additional Information** be requested regarding the proximity of the proposal in relation to the Canal. An extract taken from the report issued states the following:

**Review:**

*The Delivery Team has concerns in relation to the proposed development and in particular, regarding its proximity to the Grand Canal, which is a proposed Natural Heritage Area. The proposed structure would also appear to be very close to the trees/hedgerow along the Canalside walk. The Canal plays an important role as a biodiversity and amenity corridor and as a green infrastructure element and this multifunctional role will be enhanced and strengthened in the context of the City Edge Strategic Framework. The Emerging Preferred Scenario published in September 2021 set out the vision for the Canal in the context of the future new City Edge urban quarter as being a destination and attraction hosting an active travel and ecological greenway with the introduction of amenity and recreational uses. All of the foregoing would require careful balancing of amenity and ecology considerations.*

*It is also noted that in the context of the location of the proposed development along the Grand Canal pNHA and directly upstream of Natura 2000 sites in Dublin Bay, it may be advisable that the applicant be requested to submit AA and EIA Screening Reports.*

**South Dublin County Council**

**An Rannóg Talamhúsáide, Pleanála agus Iompair**

**Land Use, Planning & Transportation Department**

**Telephone: 01 4149000 Fax: 01 4149104 Email: [planning.dept@sdublincoco.ie](mailto:planning.dept@sdublincoco.ie)**

**J. Taylor Architect Ltd.**

**39, North Avenue**

**Mount Merrion**

**Co. Dublin**

**PLANNING & DEVELOPMENT ACT, 2000 (as amended) AND PLANNING REGULATIONS THEREUNDER**

<b>Decision Order Number: 0603</b>	<b>Date of Decision: 12-May-2022</b>
<b>Register Reference: SD21A/0329</b>	<b>Date: 19-Apr-2022</b>

**Applicant:** P & S Machinery  
**Application Type:** Additional Information  
**Development:** Development comprising 189sq.m of warehouse space and 89sq.m of ancillary office space  
**Location:** Site at Bluebell Avenue, Bluebell Industrial Estate, Dublin 12

Dear Sir /Madam,

With reference to your planning application, additional information received on 19-Apr-2022, in connection with the above, I wish to inform you that before the application can be considered under the above Act(s), **6 copies** of the following **Clarification of Additional Information** must be submitted:

1. It is unclear how the applicants have screened out likely significant effects on protected species (bats) in the EIAR screening report submitted. In the context of the absence of details on ecological survey work or on lighting levels for bat populations whereby the presence of bats were identified in the preliminary ecological report previously carried out for the City Edge Project, the applicant is requested to demonstrate how the EIAR screening report submitted concluded that there would be no likely significant effects on protected species (bats). The applicant is requested to submit an ecological survey including a bat survey together with an assessment and illustration of lighting levels (by a suitably qualified person) from the proposed development (including any lighting that is proposed around and within the perimeter of the site such as parking, security and signage lighting) on any bat roosts and any bat commuting, feeding and foraging routes.

## Materials and Methods

The site was visited on Monday 6<sup>th</sup> June 2022 and examined for any evidence of roosting bats, good feeding potential and likely feeding corridors created by linear features and more importantly vegetation. In addition to this, a static monitor to assess ultrasonic bat activity through the night was installed over a two-night period. An active bat activity survey was undertaken on the night of the 7<sup>th</sup> of June 2022 and commenced at 21.00 hours and again included an inspection of the site for any bat signs, squeaking from walls or ivy cover and following this examination of the site (visual and ultrasonic) for bat feeding, commuting and emergence or return. Surveying continued up to 23.15 hours and re-commenced at 03.37 hours up to sunrise at 04.59 hours. This active survey concentrated on bats visible within the site and passing directly through while the passive survey (static monitor) was assessing all bat activity past and within the site.

The light entering the site was assessed using a lux meter once the sensor light was triggered. A light along the Grand Canal did not register on the lux meter.

### Survey constraints

Weather conditions were fully suited to bat activity. There was no wind or rain and no atmospheric pressure conditions that would affect bat activity. The assessment is proposed to be reflective of the bat activity of the site in favourable conditions at a time of year when bat activity is very high.

## Results

Species of bat roosting within the site *None*

Species of bat roosting in adjacent buildings *None*

There are bats roosting within the site. All bat activity noted was of bats passing through the site.

### Specie of bat feeding or commuting through the site

Common pipistrelle *Pipistrellus pipistrellus*

Soprano pipistrelle *Pipistrellus pygmaeus*

Leisler's bat *Nyctalus leisleri*

Species of bat on each date	Number of passes per hour per bat species									Total number of passes
Hour	0	1	2	3	4	5	21	22	23	Grand Total
<b>06/06/2022</b>								51	77	128
common pipistrelle								4	41	45
common pipistrelle soprano pipistrelle									8	8
Leisler's bat								45	1	46
Pipistrelle (either common or soprano)									10	10
soprano pipistrelle								2	17	19
<b>07/06/2022</b>	39	41	43	19	38	1	3	34	3	221
common pipistrelle	30	30	34	19				1	1	115
common pipistrelle Leisler's bat		1								1
common pipistrelle soprano pipistrelle	1		1							2

Leisler's bat	5	6	3		38	1	3	33	2	91
soprano pipistrelle	3	4	4							11
soprano pipistrelle Leisler's bat			1							1
<b>08/06/2022</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>22</b>					<b>36</b>
common pipistrelle	4	1	1	1						7
Leisler's bat		2	1		22					25
soprano pipistrelle	1			3						4
<b>Grand Total</b>	<b>44</b>	<b>44</b>	<b>45</b>	<b>23</b>	<b>60</b>	<b>1</b>	<b>3</b>	<b>85</b>	<b>80</b>	<b>385</b>

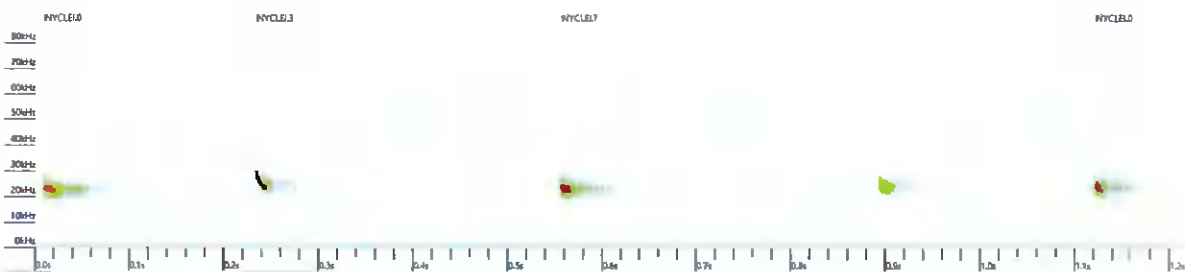
Bat activity recorded over the entire survey period 6<sup>th</sup> to 8<sup>th</sup> June 2022

In all, there were 385 bat passes recorded within or past the site. Of these, the majority were common pipistrelle but with a high level of Leisler's bat activity also noted. Given the strong association of soprano pipistrelle with waterways and waterbodies, the low level of activity by this species is unexpected.

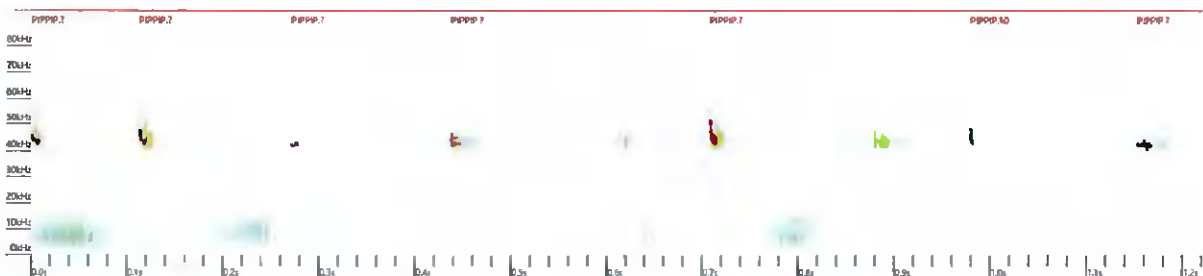
Common pipistrelles are the most generalist of Irish bats in terms of feeding and roosting. Leisler's bats will feed over large water bodies, pasture, woodland edge as well as street lighting and security lighting. As noted, there is no bat roost potential within the site as it currently stands. There are no buildings, very limited wall cover form cover and no trees.

The lux meter indicated a figure of 5 lux from the security lighting of the neighbouring site. This was arriving on to the site over a distance of approximately 8 metres. This is a higher level than is recommended for areas with roost or feeding potential for bats. Of the bat activity observed on the night of the active survey, only one bat was noted within the site over the entire survey period (dusk and dawn elements). This was a Leisler's bat at 21.38 hours flying high over the site. There is very limited vegetation within the site (small areas of ivy cover) and the site edge serves as a corridor for commuting bats.

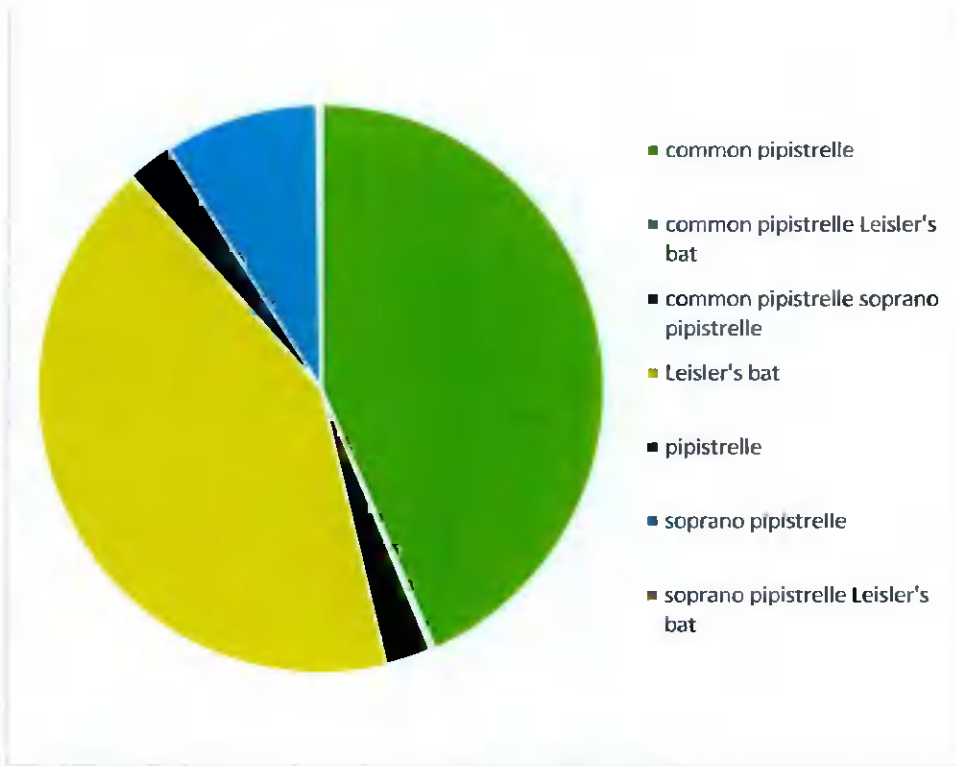
The light from the Canal lamp standard was 1 lux and is suitably low to allow bat activity around the Canal.



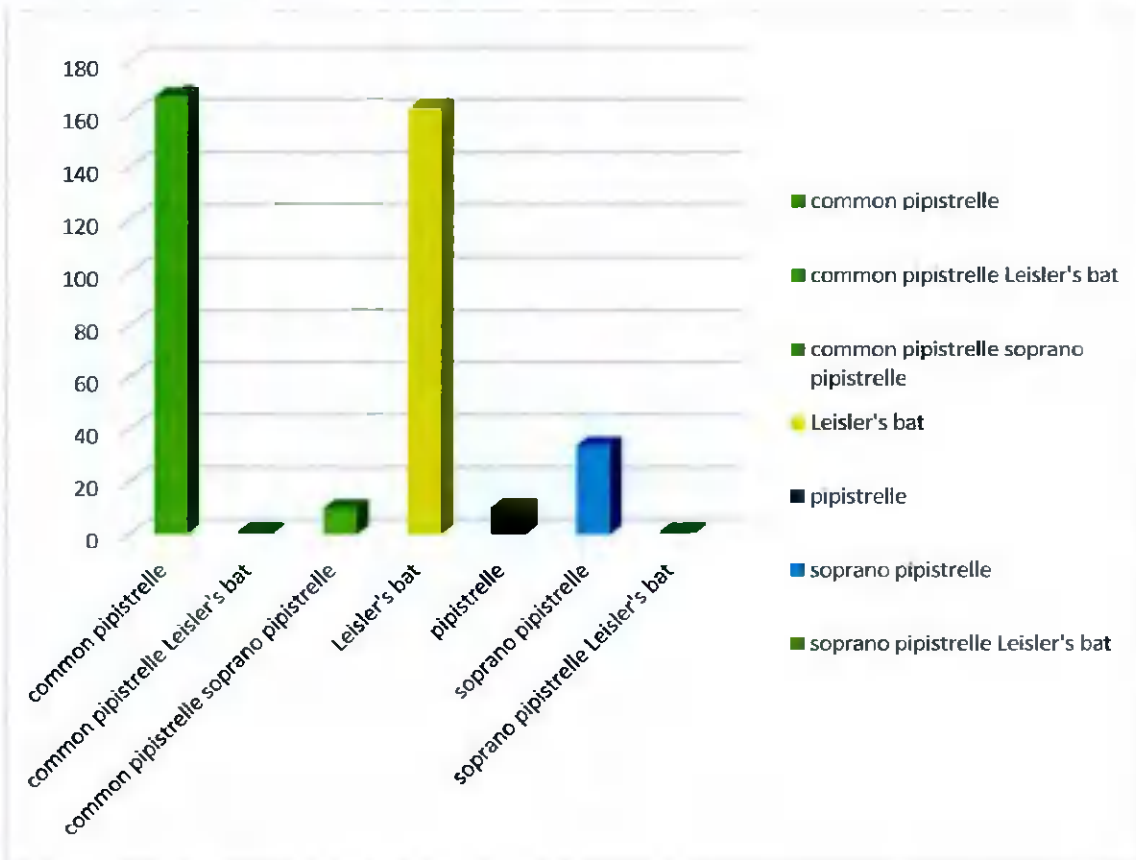
Leisler's bat signal at 21.38 hours



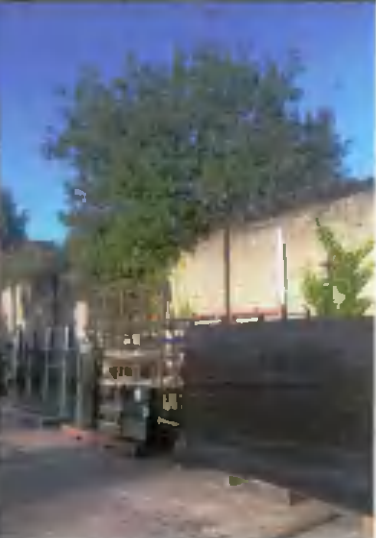
Common pipistrelle at 22.57 hours



**Bat activity recorded between June 6<sup>th</sup> and June 8<sup>th</sup>, 2022**

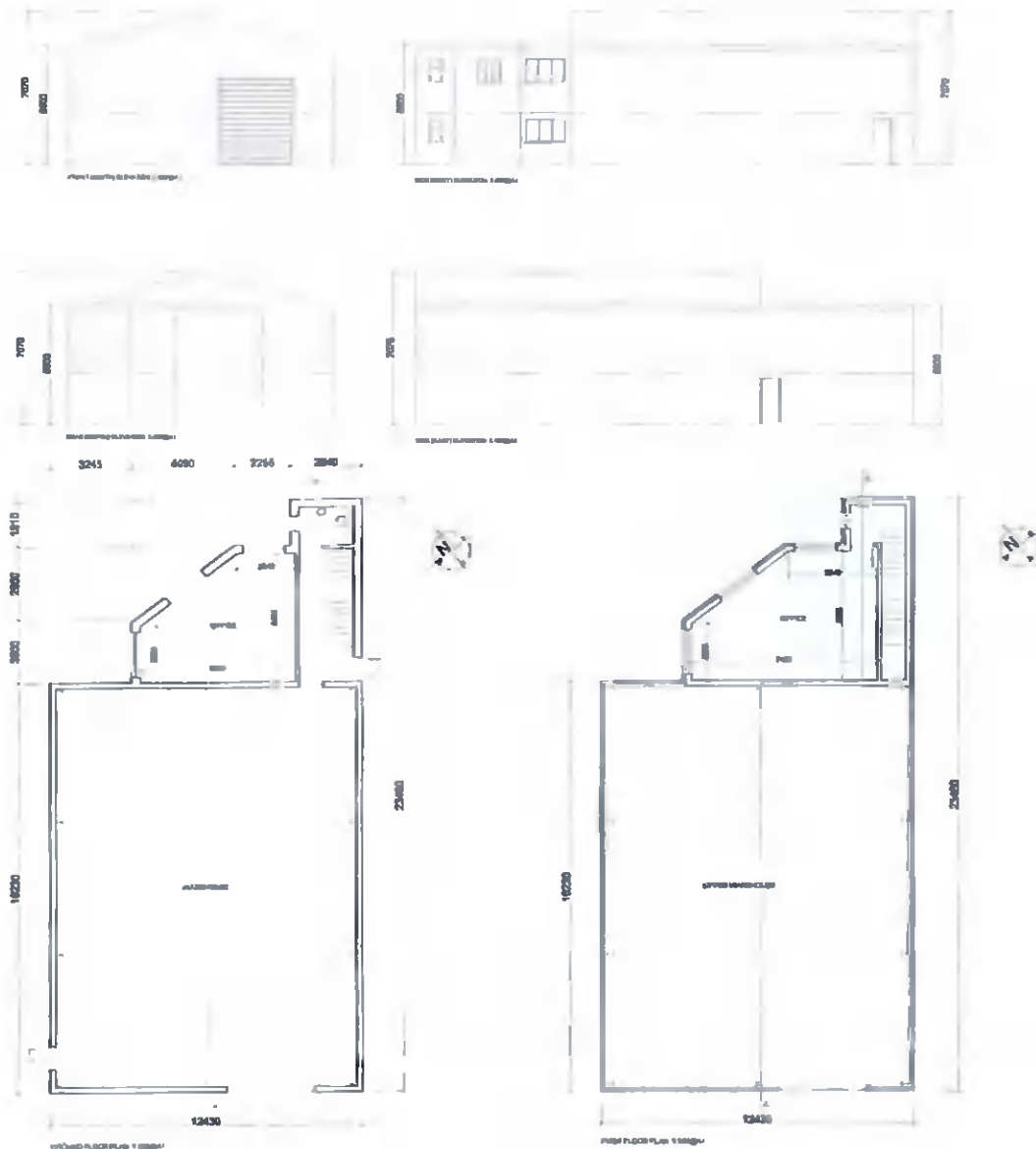


**Bat activity recorded by the static monitor**



**The existing Site**

## Proposed warehouse



## Potential Impacts

### Light Pollution

Lighting of the warehouse at night would affect the feeding and commuting of light sensitive bat species. While none of the bat species noted are very sensitive to light, all bat species avoid direct illumination in particular of roost sites. Other species known to feed along the Grand Canal include Daubenton's bat, brown long-eared bat and Natterer's bat (and *Nathusius pipistrelle* in urban Dublin). These are more sensitive to light and will avoid illuminated areas. In addition to these species, there is one record of a whiskered bat from the late 1980s (personal record of bat specialist for Dublin Bat Group) from a factory window in Bluebell and there is potential for this species given the right conditions and habitat (in the event of major changes to the Bluebell area such as "City Edge").



## Proposed Mitigation

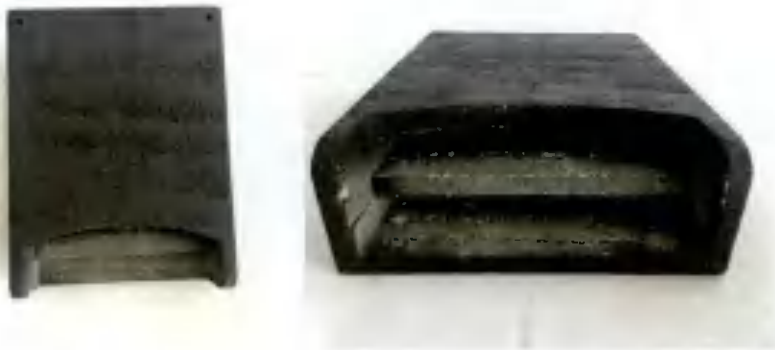
### Lighting

1. Lighting shall be motion activated only. The sensor shall respond to movement below 2.5 metres to avoid being activated repeatedly by bats and birds. This will limit untargeted activations to foxes or cats and targeted activations to humans or vehicles entering the site.
2. No ornamental illumination shall be installed. Activation shall be managed to avoid movements along the Grand Canal (this may become an issue if the wall is replaced by fencing in the future).
3. Lighting levels shall be checked within the site by a bat specialist following construction.

### Enhancement Measure

#### Provision of bat roosting opportunities on the warehouse.

Three BTD-1 Bat Boxes shall be erected on the warehouse away from lighting and open doors. The locations proposed are the south-east, east and north-west external wall of the warehouse



BTD-1 Bat Box available from [www.veldshop.nl](http://www.veldshop.nl)

### Impacts following Mitigation

There will be no impact upon bats following the full implementation of the proposed measures. There may be roost potential within the future warehouse if the bat boxes are successfully occupied by bats.

## Bat data from Songmeter Mini Bat

DATE	TIME	HOUR	Identification	PULSES	MATCHING
06/06/2022	22:09:15	22	Leisler's bat	13	11
06/06/2022	22:09:30	22	Leisler's bat	13	13
06/06/2022	22:09:51	22	Leisler's bat	25	24
06/06/2022	22:10:08	22	Leisler's bat	5	5
06/06/2022	22:10:18	22	Leisler's bat	11	11
06/06/2022	22:10:36	22	Leisler's bat	36	34
06/06/2022	22:10:52	22	Leisler's bat	4	3
06/06/2022	22:13:46	22	Leisler's bat	11	11
06/06/2022	22:14:08	22	Leisler's bat	25	23
06/06/2022	22:14:23	22	Leisler's bat	15	14
06/06/2022	22:16:05	22	Leisler's bat	2	0
06/06/2022	22:16:13	22	Leisler's bat	17	13
06/06/2022	22:16:48	22	Leisler's bat	31	27
06/06/2022	22:17:03	22	Leisler's bat	24	23
06/06/2022	22:17:24	22	Leisler's bat	31	30
06/06/2022	22:17:42	22	Leisler's bat	7	6
06/06/2022	22:18:06	22	Leisler's bat	3	1
06/06/2022	22:18:37	22	Leisler's bat	24	24
06/06/2022	22:18:51	22	Leisler's bat	27	22
06/06/2022	22:26:20	22	Leisler's bat	30	26
06/06/2022	22:26:36	22	Leisler's bat	33	33
06/06/2022	22:26:54	22	Leisler's bat	6	3
06/06/2022	22:27:09	22	Leisler's bat	17	13
06/06/2022	22:27:30	22	Leisler's bat	14	13
06/06/2022	22:29:32	22	Leisler's bat	14	13
06/06/2022	22:29:45	22	Leisler's bat	23	21
06/06/2022	22:30:00	22	Leisler's bat	18	17
06/06/2022	22:30:23	22	Leisler's bat	33	31
06/06/2022	22:30:46	22	Leisler's bat	7	5
06/06/2022	22:32:00	22	Leisler's bat	38	33
06/06/2022	22:32:17	22	Leisler's bat	24	21
06/06/2022	22:32:41	22	Leisler's bat	18	16
06/06/2022	22:33:00	22	Leisler's bat	14	14
06/06/2022	22:33:17	22	Leisler's bat	19	16
06/06/2022	22:35:52	22	Leisler's bat	38	31
06/06/2022	22:36:12	22	Leisler's bat	14	12
06/06/2022	22:36:48	22	Leisler's bat	16	15
06/06/2022	22:37:13	22	Leisler's bat	14	13
06/06/2022	22:38:05	22	Leisler's bat	45	38
06/06/2022	22:39:34	22	Leisler's bat	30	22
06/06/2022	22:40:52	22	Leisler's bat	21	18
06/06/2022	22:41:39	22	Leisler's bat	33	28
06/06/2022	22:42:42	22	Leisler's bat	27	26
06/06/2022	22:50:51	22	Leisler's bat	26	23
06/06/2022	22:53:27	22	Leisler's bat	18	18
06/06/2022	22:54:58	22	soprano pipistrelle	39	32

06/06/2022	22:56:14	22	common pipistrelle	69	30
06/06/2022	22:57:32	22	common pipistrelle	4	0
06/06/2022	22:57:46	22	common pipistrelle	48	47
06/06/2022	22:58:07	22	common pipistrelle	4	0
06/06/2022	22:58:33	22	soprano pipistrelle	7	7
06/06/2022	23:00:54	23	common pipistrelle	15	0
06/06/2022	23:01:37	23	common pipistrelle	4	0
06/06/2022	23:01:56	23	common pipistrelle	6	0
06/06/2022	23:02:08	23	common pipistrelle	13	8
06/06/2022	23:03:57	23	pipistrelle	4	0
06/06/2022	23:04:57	23	common pipistrelle	7	0
06/06/2022	23:07:00	23	common pipistrelle	29	27
06/06/2022	23:07:56	23	common pipistrelle	11	0
06/06/2022	23:08:52	23	common pipistrelle	10	0
06/06/2022	23:09:26	23	common pipistrelle	68	34
06/06/2022	23:09:40	23	common pipistrelle	87	53
06/06/2022	23:11:13	23	common pipistrelle	7	3
06/06/2022	23:11:26	23	pipistrelle	9	0
06/06/2022	23:13:32	23	pipistrelle	7	0
06/06/2022	23:14:27	23	common pipistrelle	11	7
06/06/2022	23:16:02	23	common pipistrelle	11	0
06/06/2022	23:17:20	23	common pipistrelle	15	0
06/06/2022	23:18:11	23	soprano pipistrelle	4	0
06/06/2022	23:19:16	23	common pipistrelle	7	0
06/06/2022	23:21:09	23	common pipistrelle	14	7
06/06/2022	23:21:32	23	common pipistrelle	26	11
06/06/2022	23:21:48	23	common pipistrelle	16	7
06/06/2022	23:22:51	23	common pipistrelle	3	0
06/06/2022	23:23:13	23	pipistrelle	11	0
06/06/2022	23:23:32	23	pipistrelle	3	0
06/06/2022	23:23:51	23	common pipistrelle	7	6
06/06/2022	23:24:26	23	common pipistrelle	5	4
06/06/2022	23:25:51	23	common pipistrelle soprano pipistrelle	14	0
06/06/2022	23:26:12	23	common pipistrelle	9	8
06/06/2022	23:27:53	23	pipistrelle	2	2
06/06/2022	23:28:05	23	common pipistrelle	5	0
06/06/2022	23:28:46	23	soprano pipistrelle	150	116
06/06/2022	23:29:04	23	common pipistrelle	39	16
06/06/2022	23:29:21	23	common pipistrelle soprano pipistrelle	69	0
06/06/2022	23:29:50	23	common pipistrelle	4	0
06/06/2022	23:30:27	23	common pipistrelle	14	0
06/06/2022	23:30:50	23	common pipistrelle	8	5
06/06/2022	23:30:58	23	common pipistrelle soprano pipistrelle	15	12
06/06/2022	23:31:28	23	common pipistrelle	3	3
06/06/2022	23:32:06	23	pipistrelle	16	0
06/06/2022	23:33:34	23	common pipistrelle	12	6
06/06/2022	23:34:11	23	common pipistrelle	8	2
06/06/2022	23:35:30	23	pipistrelle	6	0
06/06/2022	23:36:01	23	soprano pipistrelle	10	0

06/06/2022	23:36:21	23	soprano pipistrelle	58	50
06/06/2022	23:36:37	23	common pipistrelle	8	0
06/06/2022	23:36:52	23	soprano pipistrelle	58	38
06/06/2022	23:37:44	23	soprano pipistrelle	68	57
06/06/2022	23:37:59	23	soprano pipistrelle	135	77
06/06/2022	23:38:15	23	soprano pipistrelle	117	68
06/06/2022	23:38:37	23	pipistrelle	37	0
06/06/2022	23:38:59	23	common pipistrelle	9	0
06/06/2022	23:39:40	23	common pipistrelle	9	5
06/06/2022	23:40:04	23	common pipistrelle soprano pipistrelle	8	0
06/06/2022	23:40:25	23	common pipistrelle soprano pipistrelle	16	0
06/06/2022	23:40:41	23	soprano pipistrelle	21	21
06/06/2022	23:41:11	23	soprano pipistrelle	30	14
06/06/2022	23:41:56	23	common pipistrelle	11	6
06/06/2022	23:43:52	23	soprano pipistrelle	2	0
06/06/2022	23:44:41	23	common pipistrelle	13	5
06/06/2022	23:45:01	23	pipistrelle	12	0
06/06/2022	23:45:28	23	soprano pipistrelle	32	23
06/06/2022	23:46:17	23	common pipistrelle	5	4
06/06/2022	23:47:01	23	common pipistrelle	75	39
06/06/2022	23:47:17	23	common pipistrelle	6	0
06/06/2022	23:47:42	23	soprano pipistrelle	3	0
06/06/2022	23:48:00	23	soprano pipistrelle	9	6
06/06/2022	23:48:08	23	common pipistrelle soprano pipistrelle	7	0
06/06/2022	23:48:37	23	common pipistrelle soprano pipistrelle	4	0
06/06/2022	23:49:16	23	common pipistrelle	2	1
06/06/2022	23:49:44	23	common pipistrelle	6	4
06/06/2022	23:50:27	23	soprano pipistrelle	25	24
06/06/2022	23:51:18	23	Leisler's bat	8	8
06/06/2022	23:52:01	23	common pipistrelle soprano pipistrelle	4	0
06/06/2022	23:52:56	23	soprano pipistrelle	63	63
06/06/2022	23:53:06	23	soprano pipistrelle	29	23
06/06/2022	23:53:22	23	common pipistrelle	20	0
07/06/2022	00:01:56	0	Leisler's bat	3	2
07/06/2022	00:07:51	0	Leisler's bat	13	13
07/06/2022	00:08:25	0	common pipistrelle	5	4
07/06/2022	00:08:56	0	Leisler's bat	5	5
07/06/2022	00:12:17	0	Leisler's bat	23	22
07/06/2022	00:12:33	0	Leisler's bat	3	2
07/06/2022	00:13:25	0	common pipistrelle	11	0
07/06/2022	00:18:57	0	common pipistrelle	12	0
07/06/2022	00:19:08	0	common pipistrelle	19	0
07/06/2022	00:20:31	0	common pipistrelle	6	0
07/06/2022	00:21:16	0	soprano pipistrelle	109	109
07/06/2022	00:21:31	0	soprano pipistrelle	68	68
07/06/2022	00:21:48	0	soprano pipistrelle	128	127
07/06/2022	00:22:15	0	common pipistrelle	6	2
07/06/2022	00:22:38	0	common pipistrelle	9	8
07/06/2022	00:23:59	0	common pipistrelle	4	3

07/06/2022	00:24:22	0	common pipistrelle	17	17
07/06/2022	00:24:50	0	common pipistrelle	18	18
07/06/2022	00:25:28	0	common pipistrelle	15	15
07/06/2022	00:26:17	0	common pipistrelle	11	11
07/06/2022	00:26:28	0	common pipistrelle	10	10
07/06/2022	00:26:54	0	common pipistrelle	10	10
07/06/2022	00:27:07	0	common pipistrelle	9	9
07/06/2022	00:27:26	0	common pipistrelle	8	8
07/06/2022	00:27:36	0	common pipistrelle	10	6
07/06/2022	00:31:39	0	common pipistrelle	7	0
07/06/2022	00:32:39	0	common pipistrelle soprano pipistrelle	3	0
07/06/2022	00:32:51	0	common pipistrelle	7	5
07/06/2022	00:34:59	0	common pipistrelle	11	5
07/06/2022	00:35:49	0	common pipistrelle	6	3
07/06/2022	00:38:32	0	common pipistrelle	5	3
07/06/2022	00:38:38	0	common pipistrelle	5	3
07/06/2022	00:39:16	0	common pipistrelle	5	0
07/06/2022	00:39:39	0	common pipistrelle	7	3
07/06/2022	00:43:21	0	common pipistrelle	14	11
07/06/2022	00:47:57	0	common pipistrelle	6	0
07/06/2022	00:49:15	0	common pipistrelle	6	0
07/06/2022	00:50:09	0	common pipistrelle	5	4
07/06/2022	00:56:56	0	common pipistrelle	21	21
07/06/2022	01:03:48	1	soprano pipistrelle	5	5
07/06/2022	01:08:21	1	Leisler's bat	3	3
07/06/2022	01:08:45	1	Leisler's bat	3	3
07/06/2022	01:10:20	1	common pipistrelle	8	8
07/06/2022	01:11:09	1	common pipistrelle	8	8
07/06/2022	01:11:28	1	common pipistrelle	7	7
07/06/2022	01:13:33	1	Leisler's bat	3	3
07/06/2022	01:13:39	1	Leisler's bat	2	2
07/06/2022	01:14:04	1	soprano pipistrelle	4	0
07/06/2022	01:14:32	1	soprano pipistrelle	2	0
07/06/2022	01:18:10	1	soprano pipistrelle	6	0
07/06/2022	01:21:39	1	common pipistrelle	8	0
07/06/2022	01:22:41	1	Leisler's bat	5	5
07/06/2022	01:23:14	1	common pipistrelle	5	0
07/06/2022	01:26:49	1	common pipistrelle	9	6
07/06/2022	01:27:26	1	common pipistrelle	4	4
07/06/2022	01:29:16	1	common pipistrelle	4	4
07/06/2022	01:30:47	1	common pipistrelle	8	6
07/06/2022	01:30:58	1	common pipistrelle	12	0
07/06/2022	01:32:30	1	common pipistrelle	21	0
07/06/2022	01:33:05	1	common pipistrelle	6	6
07/06/2022	01:34:04	1	common pipistrelle	9	0
07/06/2022	01:34:13	1	common pipistrelle	3	0
07/06/2022	01:35:48	1	common pipistrelle Leisler's bat	8	0
07/06/2022	01:36:10	1	Leisler's bat	10	6
07/06/2022	01:38:54	1	common pipistrelle	9	9

07/06/2022	01:39:17	1	common pipistrelle	3	0
07/06/2022	01:39:49	1	common pipistrelle	9	9
07/06/2022	01:40:26	1	common pipistrelle	4	4
07/06/2022	01:43:28	1	common pipistrelle	7	0
07/06/2022	01:43:38	1	common pipistrelle		
07/06/2022	01:44:15	1	common pipistrelle	4	0
07/06/2022	01:45:24	1	common pipistrelle	52	45
07/06/2022	01:45:34	1	common pipistrelle	4	3
07/06/2022	01:45:45	1	common pipistrelle	10	10
07/06/2022	01:48:53	1	common pipistrelle	6	0
07/06/2022	01:50:05	1	common pipistrelle	5	5
07/06/2022	01:52:06	1	common pipistrelle	8	4
07/06/2022	01:52:17	1	common pipistrelle	11	6
07/06/2022	01:52:47	1	common pipistrelle	10	9
07/06/2022	01:58:03	1	common pipistrelle	8	4
07/06/2022	02:01:07	2	common pipistrelle	6	4
07/06/2022	02:02:15	2	common pipistrelle	7	0
07/06/2022	02:05:13	2	common pipistrelle	63	53
07/06/2022	02:07:44	2	Leisler's bat	5	5
07/06/2022	02:08:50	2	common pipistrelle	4	2
07/06/2022	02:11:43	2	common pipistrelle	6	0
07/06/2022	02:12:38	2	common pipistrelle	5	4
07/06/2022	02:13:05	2	common pipistrelle	11	9
07/06/2022	02:15:23	2	Leisler's bat	12	11
07/06/2022	02:16:29	2	common pipistrelle	4	4
07/06/2022	02:17:15	2	Leisler's bat	21	15
07/06/2022	02:18:31	2	common pipistrelle	14	14
07/06/2022	02:24:43	2	soprano pipistrelle Leisler's bat		
07/06/2022	02:25:03	2	soprano pipistrelle	9	9
07/06/2022	02:27:52	2	common pipistrelle soprano pipistrelle	10	0
07/06/2022	02:28:38	2	common pipistrelle		
07/06/2022	02:29:19	2	soprano pipistrelle	3	0
07/06/2022	02:29:38	2	common pipistrelle	8	0
07/06/2022	02:30:24	2	common pipistrelle	3	3
07/06/2022	02:31:39	2	soprano pipistrelle	6	6
07/06/2022	02:32:40	2	soprano pipistrelle	6	6
07/06/2022	02:36:55	2	common pipistrelle	9	9
07/06/2022	02:37:49	2	common pipistrelle	16	16
07/06/2022	02:38:09	2	common pipistrelle	9	0
07/06/2022	02:49:30	2	common pipistrelle	12	0
07/06/2022	02:50:06	2	common pipistrelle	9	0
07/06/2022	02:50:13	2	common pipistrelle	14	0
07/06/2022	02:50:28	2	common pipistrelle	13	0
07/06/2022	02:51:00	2	common pipistrelle	19	16
07/06/2022	02:51:17	2	common pipistrelle	23	17
07/06/2022	02:51:38	2	common pipistrelle	26	21
07/06/2022	02:52:33	2	common pipistrelle	17	10
07/06/2022	02:52:43	2	common pipistrelle	12	0
07/06/2022	02:52:59	2	common pipistrelle	13	0

07/06/2022	02:53:21	2	common pipistrelle	12	0
07/06/2022	02:53:29	2	common pipistrelle	12	0
07/06/2022	02:54:08	2	common pipistrelle	14	0
07/06/2022	02:54:41	2	common pipistrelle	8	0
07/06/2022	02:54:50	2	common pipistrelle	12	0
07/06/2022	02:55:02	2	common pipistrelle	12	0
07/06/2022	02:55:32	2	common pipistrelle	9	5
07/06/2022	02:56:23	2	common pipistrelle	9	0
07/06/2022	02:57:46	2	common pipistrelle	11	6
07/06/2022	03:00:17	3	common pipistrelle	12	0
07/06/2022	03:00:25	3	common pipistrelle	10	0
07/06/2022	03:00:52	3	common pipistrelle	6	0
07/06/2022	03:13:08	3	common pipistrelle	21	0
07/06/2022	03:13:25	3	common pipistrelle	10	8
07/06/2022	03:14:23	3	common pipistrelle	11	0
07/06/2022	03:16:04	3	common pipistrelle	8	8
07/06/2022	03:19:03	3	common pipistrelle	7	7
07/06/2022	03:19:12	3	common pipistrelle	8	8
07/06/2022	03:23:40	3	common pipistrelle	3	0
07/06/2022	03:27:26	3	common pipistrelle	7	7
07/06/2022	03:29:19	3	common pipistrelle	5	3
07/06/2022	03:31:21	3	common pipistrelle	10	0
07/06/2022	03:37:51	3	common pipistrelle	14	0
07/06/2022	03:38:04	3	common pipistrelle	15	0
07/06/2022	03:40:15	3	common pipistrelle	10	5
07/06/2022	03:42:34	3	common pipistrelle	11	10
07/06/2022	03:42:43	3	common pipistrelle	8	0
07/06/2022	03:46:51	3	common pipistrelle	12	0
07/06/2022	04:06:48	4	Leisler's bat	7	6
07/06/2022	04:06:58	4	Leisler's bat	18	16
07/06/2022	04:07:58	4	Leisler's bat	22	10
07/06/2022	04:08:14	4	Leisler's bat	27	22
07/06/2022	04:10:21	4	Leisler's bat	25	16
07/06/2022	04:10:42	4	Leisler's bat	39	30
07/06/2022	04:10:59	4	Leisler's bat	52	49
07/06/2022	04:11:14	4	Leisler's bat	3	1
07/06/2022	04:11:36	4	Leisler's bat	22	18
07/06/2022	04:11:49	4	Leisler's bat	50	43
07/06/2022	04:12:04	4	Leisler's bat	17	17
07/06/2022	04:12:17	4	Leisler's bat	12	11
07/06/2022	04:13:07	4	Leisler's bat	3	3
07/06/2022	04:17:35	4	Leisler's bat	37	34
07/06/2022	04:22:24	4	Leisler's bat	18	17
07/06/2022	04:23:27	4	Leisler's bat	24	23
07/06/2022	04:24:30	4	Leisler's bat	15	15
07/06/2022	04:24:51	4	Leisler's bat	14	14
07/06/2022	04:25:36	4	Leisler's bat	20	20
07/06/2022	04:26:02	4	Leisler's bat	26	26
07/06/2022	04:26:27	4	Leisler's bat	16	16

07/06/2022	04:26:44	4	Leisler's bat	16	16
07/06/2022	04:26:59	4	Leisler's bat	22	19
07/06/2022	04:27:18	4	Leisler's bat	45	42
07/06/2022	04:27:33	4	Leisler's bat	8	8
07/06/2022	04:27:47	4	Leisler's bat	20	20
07/06/2022	04:28:17	4	Leisler's bat	3	3
07/06/2022	04:28:43	4	Leisler's bat	20	20
07/06/2022	04:29:06	4	Leisler's bat	13	13
07/06/2022	04:29:34	4	Leisler's bat	20	19
07/06/2022	04:29:50	4	Leisler's bat	9	9
07/06/2022	04:30:27	4	Leisler's bat	2	2
07/06/2022	04:31:39	4	Leisler's bat	21	21
07/06/2022	04:34:15	4	Leisler's bat	18	15
07/06/2022	04:35:37	4	Leisler's bat	22	19
07/06/2022	04:36:09	4	Leisler's bat	41	36
07/06/2022	04:36:24	4	Leisler's bat	14	11
07/06/2022	04:36:38	4	Leisler's bat	18	18
07/06/2022	05:15:19	5	Leisler's bat	9	4
07/06/2022	21:38:08	21	Leisler's bat	42	38
07/06/2022	21:57:57	21	Leisler's bat	9	9
07/06/2022	21:58:12	21	Leisler's bat	12	11
07/06/2022	22:02:47	22	Leisler's bat	3	3
07/06/2022	22:09:27	22	Leisler's bat	4	3
07/06/2022	22:09:31	22	Leisler's bat	5	4
07/06/2022	22:14:31	22	Leisler's bat	3	2
07/06/2022	22:14:49	22	Leisler's bat	2	2
07/06/2022	22:17:28	22	Leisler's bat	9	6
07/06/2022	22:17:45	22	Leisler's bat	7	5
07/06/2022	22:18:00	22	Leisler's bat	16	12
07/06/2022	22:18:31	22	Leisler's bat	4	2
07/06/2022	22:19:37	22	Leisler's bat	6	4
07/06/2022	22:22:58	22	Leisler's bat	15	12
07/06/2022	22:23:13	22	Leisler's bat	4	0
07/06/2022	22:23:46	22	Leisler's bat	12	11
07/06/2022	22:25:09	22	Leisler's bat	17	13
07/06/2022	22:25:29	22	Leisler's bat	7	5
07/06/2022	22:25:46	22	Leisler's bat	13	11
07/06/2022	22:26:17	22	Leisler's bat	7	6
07/06/2022	22:27:04	22	Leisler's bat	7	6
07/06/2022	22:27:19	22	Leisler's bat	14	11
07/06/2022	22:27:35	22	Leisler's bat	10	8
07/06/2022	22:28:06	22	Leisler's bat	17	12
07/06/2022	22:28:38	22	Leisler's bat	7	6
07/06/2022	22:30:22	22	Leisler's bat	4	4
07/06/2022	22:30:41	22	Leisler's bat	4	3
07/06/2022	22:31:59	22	Leisler's bat	25	21
07/06/2022	22:32:14	22	Leisler's bat	8	5
07/06/2022	22:33:24	22	Leisler's bat	4	3
07/06/2022	22:33:50	22	Leisler's bat	3	2



07/06/2022	22:34:53	22	Leisler's bat	8	8
07/06/2022	22:42:12	22	Leisler's bat	18	14
07/06/2022	22:42:32	22	Leisler's bat	5	5
07/06/2022	22:43:21	22	Leisler's bat	8	5
07/06/2022	22:44:40	22	Leisler's bat	4	2
07/06/2022	22:57:04	22	common pipistrelle	10	10
07/06/2022	23:22:17	23	Leisler's bat	12	12
07/06/2022	23:22:35	23	Leisler's bat	8	7
07/06/2022	23:26:15	23	common pipistrelle	8	8
08/06/2022	00:15:23	0	soprano pipistrelle	2	0
08/06/2022	00:43:28	0	common pipistrelle	13	13
08/06/2022	00:43:44	0	common pipistrelle	70	68
08/06/2022	00:51:04	0	common pipistrelle	18	18
08/06/2022	00:59:44	0	common pipistrelle	10	10
08/06/2022	01:09:50	1	common pipistrelle	4	3
08/06/2022	01:14:54	1	Leisler's bat	6	6
08/06/2022	01:52:47	1	Leisler's bat	32	28
08/06/2022	02:24:55	2	Leisler's bat	13	11
08/06/2022	02:51:57	2	common pipistrelle	28	28
08/06/2022	03:07:07	3	soprano pipistrelle	8	8
08/06/2022	03:09:03	3	soprano pipistrelle	7	7
08/06/2022	03:09:25	3	soprano pipistrelle	27	27
08/06/2022	03:12:46	3	common pipistrelle	12	10
08/06/2022	04:21:44	4	Leisler's bat	3	3
08/06/2022	04:26:13	4	Leisler's bat	5	5
08/06/2022	04:27:14	4	Leisler's bat	31	25
08/06/2022	04:27:29	4	Leisler's bat	4	4
08/06/2022	04:32:11	4	Leisler's bat	9	9
08/06/2022	04:34:10	4	Leisler's bat	21	21
08/06/2022	04:34:49	4	Leisler's bat	3	2
08/06/2022	04:35:30	4	Leisler's bat	26	23
08/06/2022	04:35:46	4	Leisler's bat	52	52
08/06/2022	04:36:24	4	Leisler's bat	40	35
08/06/2022	04:36:40	4	Leisler's bat	12	9
08/06/2022	04:36:58	4	Leisler's bat	5	4
08/06/2022	04:37:47	4	Leisler's bat	6	5
08/06/2022	04:38:18	4	Leisler's bat	4	4
08/06/2022	04:38:23	4	Leisler's bat	13	12
08/06/2022	04:38:38	4	Leisler's bat	14	12
08/06/2022	04:39:02	4	Leisler's bat	17	16
08/06/2022	04:39:29	4	Leisler's bat	9	8
08/06/2022	04:40:15	4	Leisler's bat	12	11
08/06/2022	04:40:37	4	Leisler's bat	10	6
08/06/2022	04:41:21	4	Leisler's bat	24	19
08/06/2022	04:41:51	4	Leisler's bat	5	3

BCIreland data: search results 14 Jun 2022					
Search parameters: Roosts Transects Ad-hoc observation sites with observations of all bats within 1000m of O0964532424					
Ad-hoc observations					
Survey	Grid reference	Grid ref easting	Grid ref northing	Date	Species
Bat Survey - Scott Cawley	O098331	309800	233100	27/05/2011	Nyctalus leisleri; Pipistrellus pipistrellus (45kHz)
EIS and Road Surveys - Conor Kelleher	O0900032000	309000	232000	08/07/2007	Myotis daubentonii; Nyctalus leisleri; Pipistrellus pipistrellus (45kHz); Pipistrellus pygmaeus
EIS and Road Surveys - Conor Kelleher	O1000032000	310000	232000	08/07/2007	Myotis daubentonii; Nyctalus leisleri; Pipistrellus pipistrellus (45kHz); Pipistrellus pygmaeus