



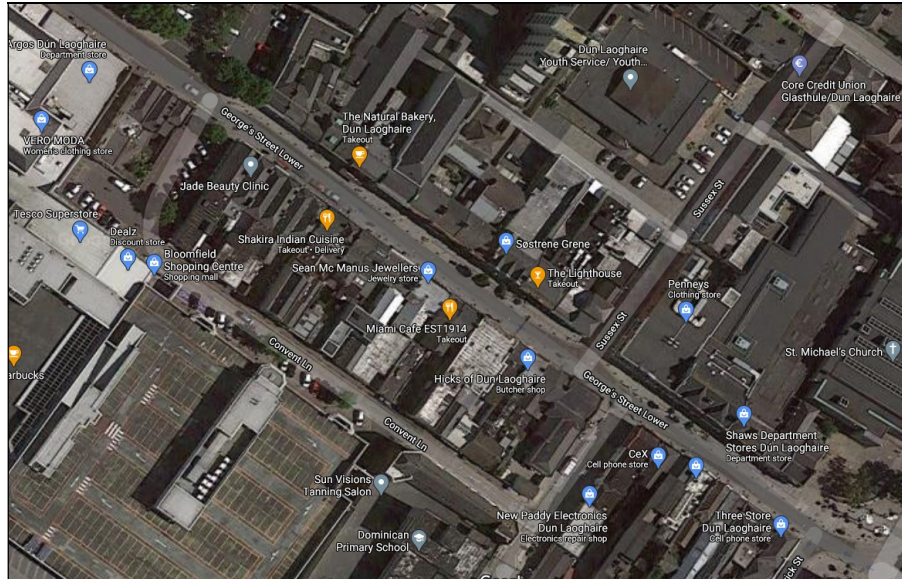
Parks & Landscape Services Section, Municipal Services Department

**Proposed Development of Myrtle Square &
Convent Lane, Dun Laoghaire, Co. Dublin
PC/PKS/01/20**

Appendix 8 – Bat Survey

Myrtle Square and Convent Lane Greening, Dun Laoghaire, Co. Dublin

Bat Survey



FINAL REPORT

10th September 2020



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Bat Survey

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Myrtle Square and Convent Lane Greening, Dun Laoghaire, Co. Dublin

Bat Survey

1. INTRODUCTION

1.1 Background

This report has been prepared by Faith Wilson (an independent ecological consultant and licensed bat specialist) who was appointed by Dun Laoghaire Rathdown County Council to prepare a bat survey of lands proposed for development as public space as part of the Myrtle Square and Convent Lane Greening in Dun Laoghaire, Co. Dublin as shown within the red line boundary on **Figure 1.1** below.

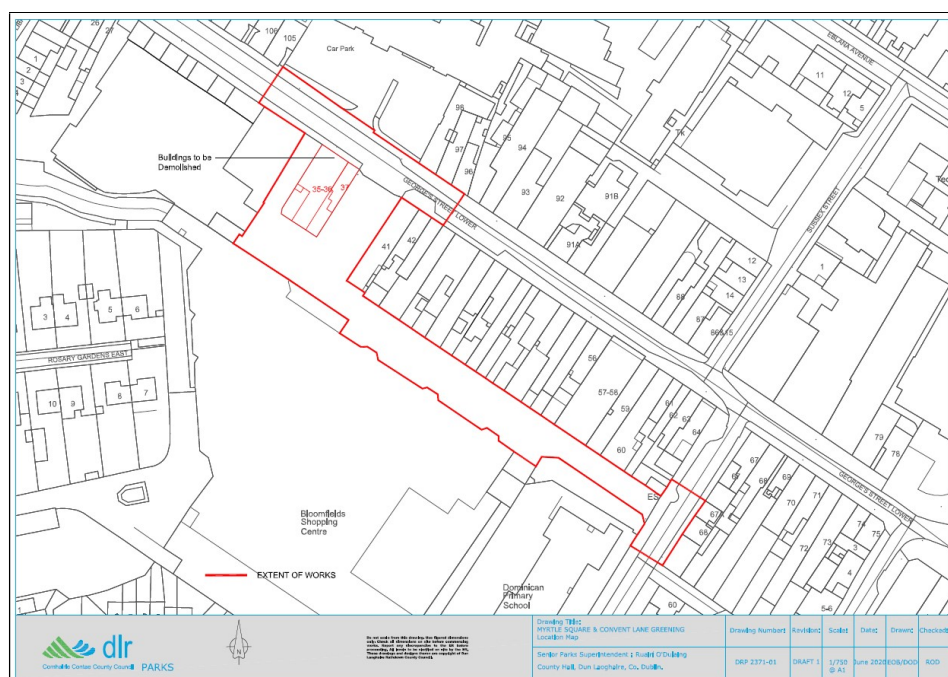


Figure 1.1 Development lands at Myrtle Square and Convent Lane as indicated by the red line boundary.

Two buildings within the study area (No. 35 - 36 and No. 37) are proposed for demolition and in line with best practice these were examined for bats to ensure safeguarding of same.

1.2 Relevant Legislation

1.2.1 Bats

Eleven species of bats occur in Ireland (of which nine are resident) and all are protected under both national and international law.

Wildlife Act 1976

In the Republic, under Schedule 5 of the Wildlife Act 1976, all bats and their roosts are protected by law. It is unlawful to disturb either without the appropriate licence. The Act was amended in 2000.

Bern and Bonn Convention

Ireland has also ratified two international conventions, which afford protection to bats amongst other fauna. These are known as the 'Bern' and 'Bonn' Conventions. The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), exists to conserve all species and their habitats, including bats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries, which covers certain species of bat.

EU Habitats Directive

All bat species are given strict protection under Annex IV of the EU Habitats Directive, whilst the lesser horseshoe bat (*Rhinolophus hipposideros*) and greater horseshoe bat (*Rhinolophus ferrumequinum*) are given further protection under Annex II of the EU Habitats Directive. Both are listed as a species of community interest that is in need of strict protection and for which E.U. nations must designate Special Areas of Conservation (SACs). The latter is only known from a single site and no breeding populations have been recorded to date. The former are a species of the western seaboard of Ireland and have not yet been recorded on the east coast.

The principal pressures on Irish bat species have been identified as follows:

- urbanized areas (e.g. light pollution);
- bridge/viaduct repairs;
- pesticides usage;
- removal of hedges, scrub, forestry;
- water pollution;
- other pollution and human impacts (e.g. renovation of dwellings with roosts);
- infillings of ditches, dykes, ponds, pools and marshes;
- management of aquatic and bank vegetation for drainage purposes;
- abandonment of pastoral systems;
- speleology and vandalism;
- communication routes: roads; and
- inappropriate forestry management.

2. METHODOLOGY

2.1 Desk Study & Field Surveys

The bat survey consisted of several elements – a desktop review and consultation with Bat Conservation Ireland, an inspection of any extant trees/vegetation within the properties for their potential to support roosting bats, an inspection of the buildings due for demolition and a bat detector activity survey of the property.

The aims of the surveys were to:

- Identify roosting sites in buildings or trees within the properties/study area.
- To determine the use of trees and other habitats in the area as feeding and commuting areas;
- Identify species of bats utilising the site for foraging or commuting purposes.

Desktop Research

The Bat Conservation Ireland database was examined for records of bats from the Dun Laoghaire area.

Building Inspection

The bat surveys were carried out by Faith Wilson, a licensed bat specialist and consisted of an external and internal inspection of the two properties (No. 35-36 and No. 37), which was conducted on the 29th July 2020. The attics of both properties were entered where safely possible and examined internally.

Bat activity is usually detected by the following signs (though direct observations are also occasionally made):

- bat droppings (these will accumulate under an established roost or under access points);
- insect remains (under feeding perches);
- oil (from fur) and urine stains;
- scratch marks; and
- bat corpses.

The nature and type of habitats present are also indicative of the species likely to be present.

Tree Survey

Trees within the garden of the rear of no.37 were assessed for their potential use by bats using the following standard criteria, which were created by bat specialists from Bat Conservation Ireland for use in the assessments of tree roosts on large infrastructural projects and are summarised in NRA (2006):

- Presence or absence of bat droppings (these can be hard to find amongst leaf litter or may be washed away following periods of wet weather),
- Bat droppings may also be seen as a black streak beneath holes, cracks, branches, etc.,

- Presence or absence of smooth edges with dark marks at potential entrances to roosts,
- Presence or absence of urine stains at potential entrances to roosts,
- Presence of natural cracks and rot holes in the trunk or boughs of the tree,
- Hollow trees,
- Presence or absence of creepers such as ivy or honeysuckle on trees (ivy clad trees are often used by bat species such as pipistrelles as roosts),
- Presence or absence of loose bark such as that of sycamore, or flaky bark on coniferous species such as cedars, cypress and Scot's pine,
- Presence or absence of bracket fungi which may indicate a rotten or potentially hollow centre to the tree,
- Known bat roosts previously identified,
- Trees with storm or machinery damage or broken boughs,
- Clutter level - where the branches and trunk are easily accessible, this is considered a better tree for bat roosts,
- Adjoining habitat - if there are a variety of feeding opportunities for bats, this increases the potential of a tree as a bat roost,
- Adjoining potential roosts / known roosts. This raises the likelihood of a tree being of benefit as bats may move roosts if the roost becomes too hot or cold during roosting and a nearby alternative roost is highly desirable.

Detector Survey

In accordance with best practice as described in the 'Guidelines for the Treatment of Bats During the Construction of National Road Schemes' (NRA 2006) and 'Bat Mitigation Guidelines for Ireland' (Kelleher 2006), a bat activity survey of the general environs of the site was conducted during the active bat season. This survey assisted in determining if any bat roosts are present in either of the buildings, if any bat species occur within the area and if bats are using the area for foraging or commuting purposes.

A bat detector survey was carried out at dusk on 29th July 2020 using three types of bat detectors - two Batbox Duet Heterodyne/Frequency Division detectors and a Pettersson D100 Heterodyne detector. The emergence of bats in the general area of the site at dusk was monitored and a walkover survey of the proposed greening area was conducted. Activity at dawn when bats return to roosts was also monitored.

Bat activity is predominantly bi-modal, with bats taking advantage of increased insect numbers on the wing during the periods after dusk and before dawn, (there is usually a lull in activity in the middle of the night). While this holds true for 'hawking' species (bats that capture prey in the open air), 'gleaning' species such as brown long-eared (*Plecotus auritus*), Natterer's (*Myotis nattereri*) and Whiskered/Brandt's bats (*Myotis mystacinus/brandtii*) remain active throughout the night, as prey is available on foliage for longer periods.

3. RESULTS

3.1 Desktop Survey

The Bat Conservation Ireland Database of bat records was searched for records of bats from the Dun Laoghaire area.

The database does not hold any records of either roosts, ad hoc observations or the results of surveys such as the BATLAS 2010 project and the All Ireland Daubenton's Monitoring Project from the immediate area of Bloomfield Shopping Centre but other surveys conducted as part of an EIS/ecological study have recorded Leisler's bat (*Nyctalus leisleri*), Common pipistrelle (*Pipistrellus pipistrellus*) and Soprano pipistrelle (*Pipistrellus pygmaeus*) from the general environs of the town.

Several bat species are known from the 10km square (O22) in which Dun Laoghaire is located. These include:

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

3.2 Field Surveys

Building Inspection

The two properties (No. 35 - 36, which was a former VHI Insurance office building, and No. 37, which was a former cobblers shop and residence) were examined for evidence of roosting bats.



Plate 1. Street view of the two properties.

The rear of the VHI Insurance office building is flat roofed with a concrete roof – below this is a modern suspended ceiling. There is a small attic space at the front of the building which could only be partially inspected.



Plate 2. Attic at the front of the VHI building (No. 35 – 36).



Plate 3. Flat roofed extension at the rear of the VHI building.

The attic of the old cobbler's shop is in very poor condition with considerable water ingress and roosting feral pigeons.

The attic space where accessible in both buildings was inspected for the presence of or signs of roosting bats. All wardrobes, storage areas, etc. in the buildings were examined and checked for signs of roosting bats.

There was no evidence of bats roosting in any of the buildings on site but there is potential for bats to roost in a number of locations within the buildings such as behind fascia, under slates or around flashings.



Plate 4. Attic of the Cobblers building (No. 37).

Detector Survey

A bat detector survey was carried out at dusk on 29th July 2020 using three types of bat detectors - two Batbox Duet Heterodyne/Frequency Division detectors and a Pettersson D100 Heterodyne detector. The emergence of bats in the general area of the buildings at dusk was monitored and a walkover survey of the general lane was conducted. Activity at dawn when bats return to roosts was also monitored.

No bats were recorded emerging from or returning to either of the buildings and no bats were encountered in the area. Bat activity was noted elsewhere in the area during the night in more suitable habitat so bats were active during the night.

Tree Survey

There is a single New Zealand cabbage tree (*Cordyline australis*) in the garden at the rear of No. 37. This does not offer any roosting potential for bats.

4. ASSESSMENT OF SIGNIFICANCE

No evidence of roosting or breeding bats is currently recorded in either of the buildings on Myrtle Square or in trees in the general environs and therefore, a bat derogation licence is not currently required for the demolition of these buildings or removal of vegetation. There is some roosting potential within both buildings and a series of general mitigation measures to ensure the protection of bats is set out below.

5. MITIGATION MEASURES

A bat derogation license is not currently required for the proposed works.

Building Demolition

The two buildings, which are scheduled for demolition will be resurveyed for bats prior to any proposed demolition works if a significant time (>6 months) has elapsed between the date of the present survey and the demolition works once planning permission is granted.

If any bat roosts are present a bat derogation licence will then be sought for the development from National Parks and Wildlife Service.

The results of this bat survey will inform the demolition process. Generally a precautionary approach to the demolition of the building will be taken, whereby the roof will be stripped manually with the expectation that bats may be present. One side of the roof will be removed and then the building left overnight before the other side is removed. This work is best done during the winter months (i.e. October – March) when bat numbers are known to be lower in buildings and will also avoid the bird breeding season.

Landscaping

Planting proposals within the new green space should consider the recommendations of the Pollinator Friendly Planting Code All-Ireland Pollinator Plan 2015-2020, which is available on www.pollinators.ie.

Health and Safety Issues

Workers on the project will be informed that bats are a protected species under both Irish and European legislation. There is a possibility that bats might be encountered during the building stripping and demolition works. Ideally bats should only be handled by a licensed bat specialist. If a grounded bat is encountered (typically a young bat) it should only be handled wearing gloves and lifted up in a piece of cloth (such as a tea towel) before being placed in a ventilated closed cardboard box. A bat specialist should be called and can then attend site and advise on what to do. As with all wild animals, bats can carry diseases and hence protective measures to ensure that one is not bitten by a bat should be taken.

6. CONCLUSIONS

No bats were recorded roosting in either of the buildings due for demolition. A bat derogation licence is therefore not currently required for the proposed works.

A series of mitigation measures are detailed to ensure that bats are protected during the development – these include a resurvey of the buildings if a significant time period has lapsed between the present survey and the commencement of the works and mitigation measures to be implemented during the building demolition works.

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