

Bat Fauna Survey for a proposed development at 2-4 Dublin Street in Balbriggan.



19^h December 2022

Prepared by: Bryan Deegan of Altemar Ltd.
On behalf of: Fingal County Council

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Document Control Sheet			
Client	Fingal County Council		
Project	Bat fauna impact assessment for a proposed development at 2-4 Dublin Street in Balbriggan.		
Report	Bat Fauna Assessment		
Date	19th December 2022		
Version	Author	Reviewed	Date
Planning	Bryan Deegan		19th December 2022

SUMMARY

Structure:	A single residential structure, a single retail unit, and associated outbuildings.
Location:	2-4 Dublin Street in Balbriggan
Bat species present:	No bats or evidence of bats on site.
Proposed work:	Commercial development.
Impact on bats:	No confirmed bat roosts will be lost. No trees of bat roosting potential are noted on site. The proposed development will change the local environment as new structures are to be erected. No bat roosts or potential bat roosts will be lost due to this development. The potential for collision risk and impact on flight paths in relation to bats is considered low due to the low level of bat activity on site and the buildings would be deemed to be clearly visible to bats. The proposed development will have a neutral long term impact on bat populations.
Survey by:	Bryan Deegan MCIEEM
Survey date:	7 th December 2022

Receiving Environment

Background

Fingal County Council (Economic, Enterprise, Tourism & Cultural Development Department) propose to carry out development at 2-4 Dublin Street in Balbriggan, a site of 570 m² / 0.057 ha approx. which includes No. 2 Dublin Street (Protected Structure 0058). The site also includes the laneway connecting the rear of the site to St George's Square. The site sits within the Balbriggan Town Core Architectural Conservation Area.

The proposed development includes:

- (i) Change of use of No. 2 Dublin Street from Residential to Commercial use.
- (ii) Refurbishment of No. 2 Dublin Street (Protected Structure RPS 0058) as workspaces, in line with best conservation practices.
- (iii) Demolition of the adjoining modern lean-to retail unit at No. 4 Dublin Street.
- (iv) Construction of a new single storey building (276 sqm) at No. 4 Dublin Street and to the rear of No. 2 Dublin Street for use as workspaces and Creative Hub, to include a Workshop Space, Multimedia Room, Office, Classroom Space, Toilets, Multi-functional gallery space and an external courtyard.
- (v) Upgrade of laneway surfacing to the rear of the site adjacent to Balbriggan Courthouse opening onto George's Square including provision of cycle parking.
- (vi) Designation of 11 no. vehicular parking spaces, including 1 no. disabled parking space, in the Bracken Court Hotel carpark.
- (vii) All associated site development works, services, piped infrastructure and ducting, changes in level, site landscaping and all associated site development and excavation works above and below ground.



Site Outline

Project: Dublin Street
 Location: 2-4 Dublin St, Balbriggan, Co. Dublin.
 Date: 01 December 2022
 Drawn By: Bryan Deegan (Altamar)

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Figure 1. Proposed site outline

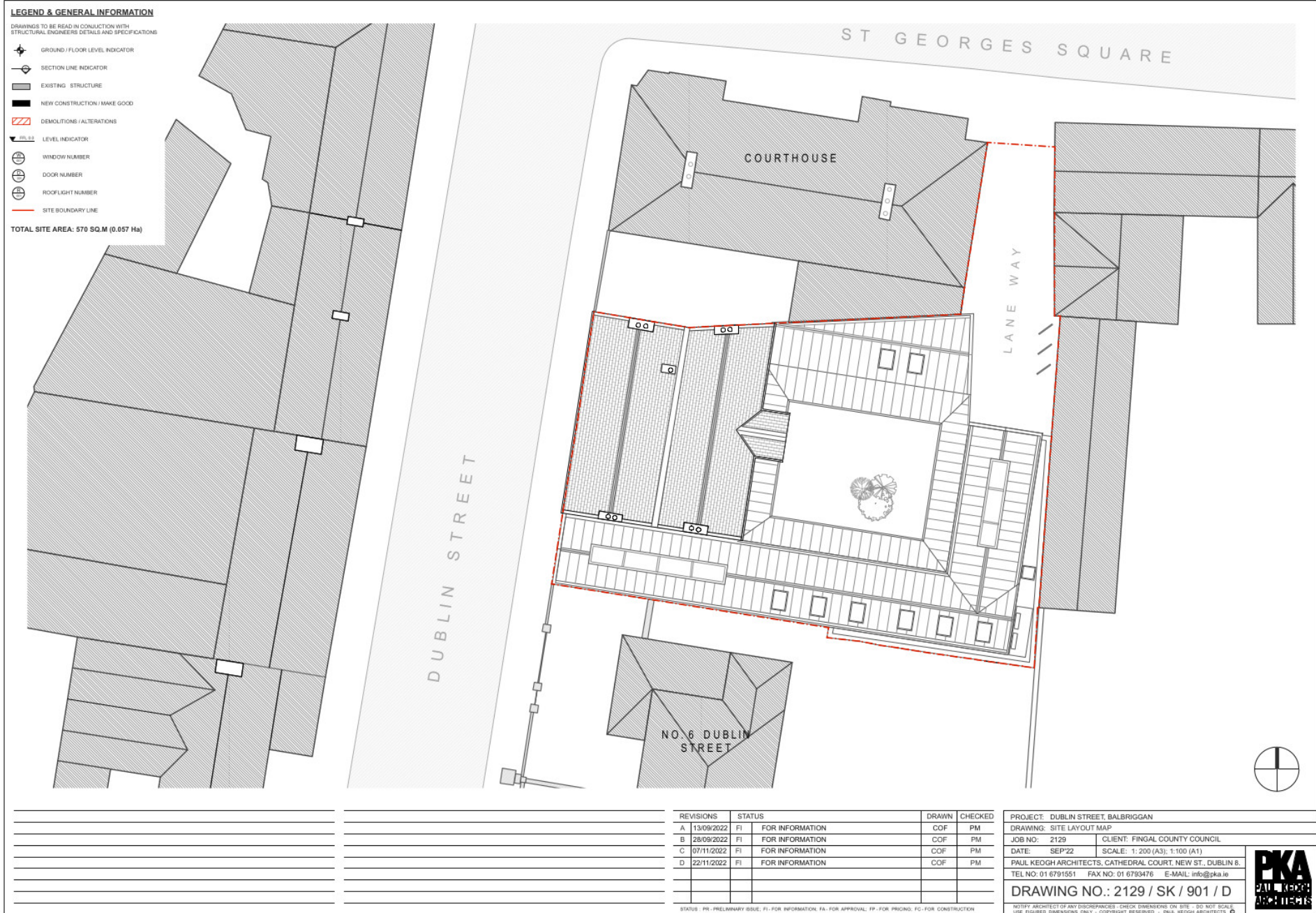


Figure 2. Proposed site layout

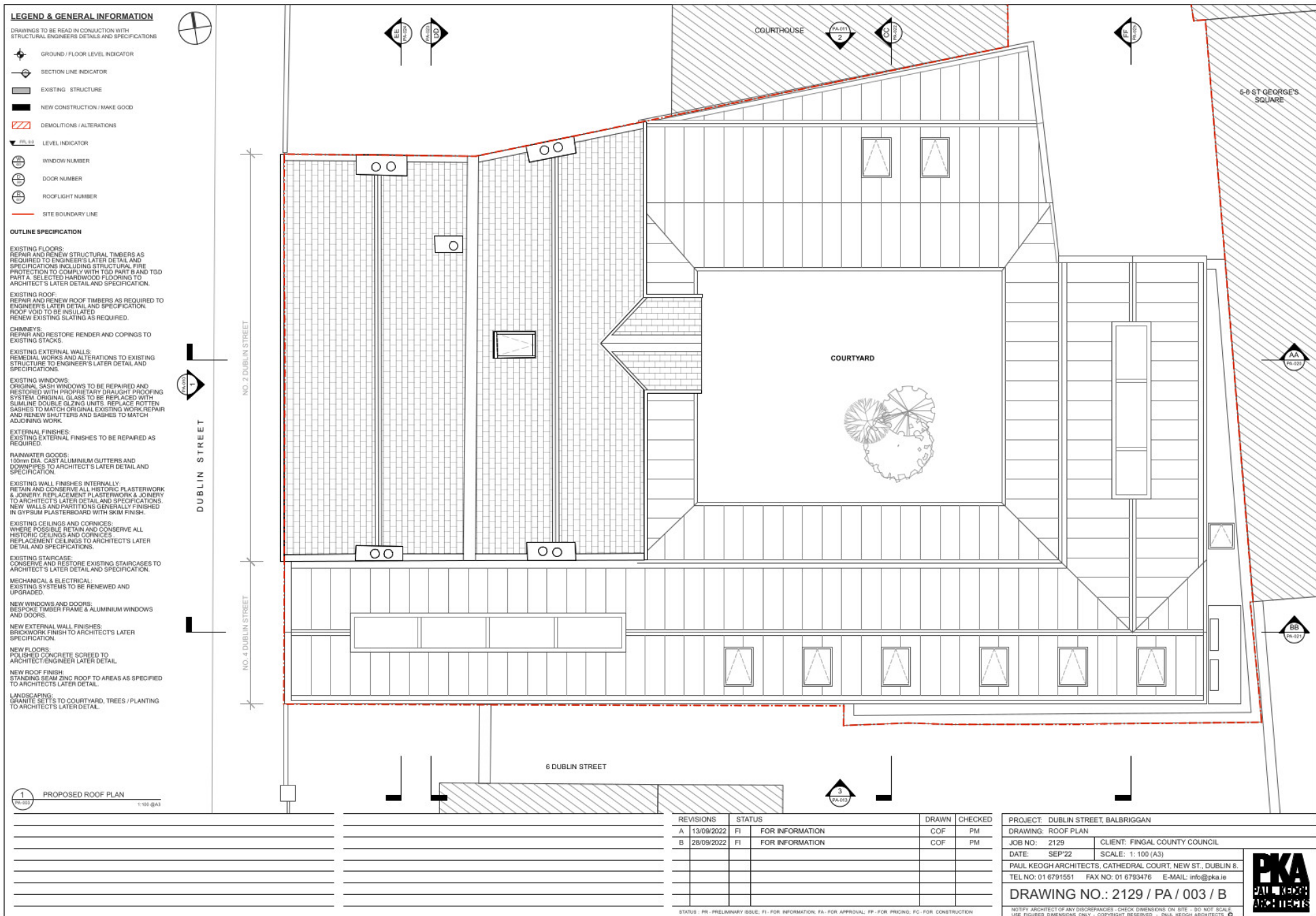


Figure 3. Proposed roof plan

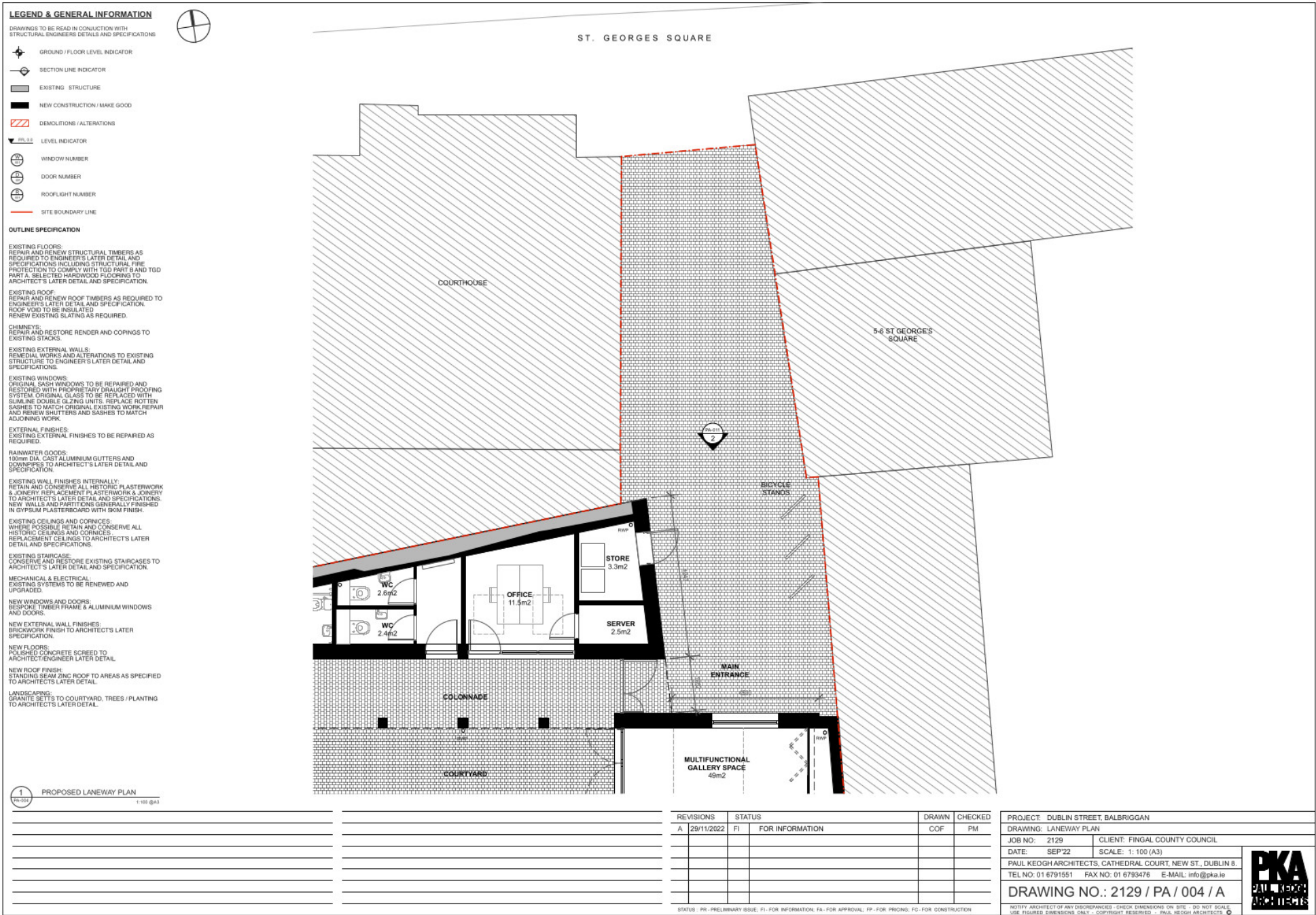


Figure 4. Proposed laneway plan

Competency of Assessor

This report has been prepared by Bryan Deegan MSc, BSc (MCIEEM). Bryan has over 27 years of experience providing ecological consultancy services in Ireland. He has extensive experience in carrying out a wide range of bat surveys including dusk emergence, dawn re-entry and static detector surveys. He also has extensive experience reducing the potential impact of projects that involve external lighting on Bats. Bryan trained with Conor Kelleher author of the Bat Mitigation Guidelines for Ireland (Kelleher and Marnell (2022)) and Bryan is currently providing bat ecology (impact assessment and enhancement) services to Dun Laoghaire Rathdown County Council primarily on the Shanganagh Park Masterplan. The desk and field surveys were carried out having regard to the guidance: Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition (Collins, J. (Ed.) 2016) and Marnell, Kelleher and Mullen (2022), Bat Mitigation Guidelines for Ireland V2 (which update and replace the Bat Mitigation Guidelines for Ireland published in 2006).

Legislative Context

Wildlife Act 1976 (as amended by, inter alia, the Wildlife (Amendment) Act 2000).

Bats in Ireland are protected by the Wildlife (Amendment) Act 2000. Based on this legislation it is an offence to wilfully interfere with or destroy the breeding or resting place of any species of bat. Under this legislation it is an offence to *“Intentionally kill, injure or take a bat, possess or control any live or dead specimen or anything derived from a bat, wilfully interfere with any structure or place used for breeding or resting by a bat, wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose.”*

Habitats Directive- Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora has been transposed into Irish Law, including, via, *inter alia*, the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). See Art.73 of the 2011 Regulations which revokes the 1997 Regulations.

Annex II of the Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) lists animal and plant species of Community interest, the conservation of which requires the designation of Special Areas of Conservation (SACs); Annex IV lists animal and plant species of Community interest in need of strict protection. All bat species in Ireland are listed on Annex IV of the Directive, while the Lesser Horseshoe Bat (*Rhinolophus hipposideros*) is protected under Annex II which related to the designation of Special Areas of Conservation for a species.

Under the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), all bat species are listed under the First Schedule and, pursuant to, *inter alia*, Part 6 and Regulation 51, it is an offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat particularly during the period of breeding, hibernating or migrating;
- Damage or destroy a breeding site or resting place of a bat;
- Keep, sell, transport, exchange, offer for sale or offer for exchange any bat taken in the wild.

Bat survey

This report presents the results of site visit by Bryan Deegan (MCIEEM) on the 7th December 2022. An internal and external inspection of buildings was carried out. This included an inspection of cracks and cavities internally and externally on the building. A bat emergent and detector survey was not possible to low temperatures within December.

Survey methodology

As outlined in Marnell et al. 2022 *'The presence of a large maternity roost can normally be determined on a single visit at any time of year, provided that the entire structure is accessible and that any signs of bats have not been removed by others. However, most roosts are less obvious. A visit during the summer or autumn has the advantage that bats may be seen or heard. Buildings (which for this definition exclude cellars and other underground structures) are rarely used for hibernation alone, so droppings deposited by active bats provide the best clues. Roosts of species which habitually enter roof voids are probably the easiest to detect as the droppings will normally be readily visible. Roosts of crevice-dwelling species may require careful searching and, in some situations, the opening up of otherwise inaccessible areas. If this is not possible, best judgement might have to be used and a precautionary approach adopted. Roosts used by a small number of bats, as opposed to large maternity sites, can be particularly difficult to detect and may require extensive searching backed up by bat detector surveys (including static detectors) or emergence counts.'* In relation to the factors influencing survey results the guidelines outlines the following *'During the winter, bats will move around to find sites that present the optimum environmental conditions for their age, sex and bodyweight and some species will only be found in underground sites when the weather is particularly cold. During the summer, bats may be reluctant to leave their roost during heavy rain or when the temperature is unseasonably low, so exit counts should record the conditions under which they were made. Similarly, there may be times when females with young do not emerge at all or emerge only briefly and return while other bats are still emerging thus confusing the count. Within roosts, bats will move around according to the temperature and may or may not be visible on any particular visit. Bats also react to disturbance, so a survey the day after a disturbance event, may give a misleading picture of roost usage.'*

The survey involved the methodologies outlined in Collins (2016) which included the roost inspection methodologies i.e. external methodology outlined in section 5.2.4.1 and the internal survey outlines in section 5.2.4.2 of the guidelines. In addition, the methodologies for Presence absence surveys (Section 7) was carried out for dust emergent surveys.'

As outlined in Collins (2016) 'The bat active period is generally considered to be between April and October inclusive (although the season is likely to be shorter in northern latitudes). However, because bats wake up during mild conditions, bat activity can also be recorded during winter months.'

Survey Results

Trees as potential bat roosts.

There are no trees of bat roosting potential present on site.

Buildings as potential bat roosts.

No evidence of bat or bats roosting on site was noted.

Emergent/detector surveys.

No emergent surveys were carried out.

Review of local bat records

The review of existing bat records (sourced from Bat Conservation Ireland’s National Bat Records Database) within a 2km² grid (Reference grid O26B) encompassing the study area reveals that three of the nine known Irish species have been observed locally (Table 1). The National Biodiversity Data Centre’s online viewer was consulted in order to determine whether there have been recorded bat sightings in the wider area. This is visually represented in Figures 5 - 7. The following species were noted in the wider area: Brown Long-eared Bat (*Plecotus auritus*), Natterer’s Bat (*Myotis nattereri*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Daubenton’s Bat (*Myotis aubentonii*), Nathusius’s Pipistrelle (*Pipistrellus nathusii*), Lesser Noctule (*Nyctalus leisleri*), and Pipistrelle (*Pipistrellus pipistrellus sensu lato*) (Figures 5 - 7).

Table 1: Status of bat species within 2km² grids encompassing the subject site (Reference No. O14S)

Species name	Count	Date of last record	Note
Brown Long-eared Bat (<i>Plecotus auritus</i>)	1	19/05/2006	National Bat Database of Ireland
Pipistrelle (<i>Pipistrellus pipistrellus sensu lato</i>)	1	19/05/2006	National Bat Database of Ireland
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	1	19/05/2006	National Bat Database of Ireland



Figure 5. Lesser Noctule (*Nyctalus leisleri*) (yellow), Brown Long-eared Bat (*Plecotus auritus*) (purple), and both Lesser Noctule and Brown Long-eared Bat (orange) (Source NBDC) (Site – red circle)



Figure 6. Soprano Pipistrelle (*Pipistrellus pygmaeus*) (yellow), Pipistrelle (*Pipistrellus pipistrellus sensu lato*) (purple) and both Soprano Pipistrelle and Pipistrelle (orange) (Source NBDC) (Site – red circle)



Figure 7. Daubentons’s Bat (*Myotis daubentonii*) (purple), Nathusius’s Pipistrelle (*Pipistrellus nathusii*) (purple), and both Daubentons’s Bat and Nathusius’s Pippistrelle (orange) (Source NBDC) (Site – red circle)

Evaluation of Results

The bat surveys comply with bat survey guidance documentation including Marnell et al (2022) and Collins (2016). However, no emergent survey was carried out. There are no trees on-site of bat roosting potential on site. No evidence of bats roosting in buildings was noted. It would appear that several areas of the building have been recently reroofed and inter works and clearance carried out.



Plate 1. Recently re-felted roof



Plate 2. Stone Masonry exterior to the site.

Potential Impact of the development on Bats

No bats were noted roosting on site. There was no evidence of bats within the buildings on site. No trees of bat roosting potential are noted on site. The proposed re-development will change the local environment as demolition works are proposed and new structures are to be erected.

Mitigation Measures

As outlined in Marnell et al. (2022) *“Mitigation should be proportionate. The level of mitigation required depends on the size and type of impact, and the importance of the population affected.”* In addition, as outlined in Marnell et. al (2022) *‘Mitigation for bats normally comprises the following elements:*

- *Avoidance of deliberate, killing, injury or disturbance – taking all reasonable steps to ensure works do not harm individuals by altering working methods or timing to avoid bats. The seasonal occupation of most roosts provides good opportunities for this*
- *Roost creation, restoration or enhancement – to provide appropriate replacements for roosts to be lost or damaged*
- *Long-term habitat management and maintenance – to ensure the population will persist*
- *Post-development population monitoring – to assess the success of the scheme and to inform management or remedial operations.’*

However, no bats were noted roosting on site. No trees of bat roosting potential are noted on site. Prior to demolition a pre demolition inspection will be carried out to assess if bats have inhabited the derelict building since this surveys was carried out and prior to the demolition.

Predicted Residual Impact of Planned Development on Bats

The site is within an existing brightly lit urban area. It is not proximate to an important area for bats. The surveys found no evidence of roosting bats on site. The proposed development will not result in the loss of any bat roost as no bats are roosting onsite. The proposed development will change the local environment as demolition works are proposed and new structures are to be erected. In the medium-long term, no significant effect would be foreseen. The proposed development will not impact on flightlines.

Potential Impacts in the absence of mitigation: Neutral / site / Not significant / long-term

References

- Collins, J. (ed.) (2016).** *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1
- Marnell, F., Kelleher, C. & Mullen, E. (2022).** *Bat mitigation guidelines for Ireland V2. Irish Wildlife Manuals, No. 134.* National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.
- Chartered Institute of Ecology and Environmental Management (2021).** *Bat Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats. Beta version.* Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018).** *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal, and Marine.* Chartered Institute of Ecology and Environmental Management, Winchester.
- Institution of Lighting Professionals (2018). *Bats and Artificial Lighting in the UK – Bats and the Built Environment Series: Guidance Note 08/18.* Institution of Lighting Professionals and the Bat Conservation Trust.
- Department of Housing, Planning and Local Government (December, 2018).** *Urban Development and Building Heights Guidelines for Planning Authorities.*
- Bat Conservation Trust (May 2022).** *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys.* The Bat Conservation Trust, London.
- Bat Conservation Ireland 2004** on-going, *National Bat Record Database.* Virginia, Co. Cavan
- Boyd, I. and Stebbings, R.E. 1989** Population changes in brown long-eared bats (*Plecotus auritus*) in Bat Boxes at Thetford Forest. *Journal of Applied Ecology* **26**: 101 - 112
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982**
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979**
- EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive) 1992**
- Jefferies, D.J. 1972** Organochlorine insecticide residues in British bats and their significance. *Journal of Zoology*, London **166**: 245 - 263
- Kelleher, C. 2004**, Thirty years, six counties, one species – an update on the lesser horseshoe bat *Rhinolophus hipposideros* (Bechstein) in Ireland – *Irish Naturalists' Journal* **27**, No. 10, 387 – 392
- Kelleher, C. 2015** *Proposed Residential Development, Church Road, Killiney, Dublin: Bat Fauna Study.* Report prepared for Altemar Marine and Environmental Consultants
- Marnell, F., Kingston, N. and Looney, D. 2009** *Ireland Red List No. 3: Terrestrial Mammals.* National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin
- Marnell, F., Kelleher, C., & Mullen, E. (2022),** BAT MITIGATION GUIDELINES FOR IRELAND – V2 <https://www.npws.ie/sites/default/files/publications/pdf/IWM134.pdf>
- Racey, P.A. and Swift, S.M. 1986** The residual effects of remedial timber treatments on bats. *Biological Conservation* **35**: 205 – 214
- Smal, C.M. 1995** *The Badger & Habitat Survey of Ireland.* The Stationery Office, Dublin
- Wildlife Act 1976 and Wildlife [Amendment] Act 2000.** Government of Ireland.