51-59 Penarth Road

Cardiff

Preliminary Roost Assessment

June 2026

W: **www.acerecology.co.uk** | E: **enquiries@acerecology.co.uk** | T: **029 2065 0331**

16 Wordsworth Avenue, Penarth, Vale of Glamorgan, CF64 2RL

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DOCUMENT CONTROL

51-59 Penarth Road, Cardiff, CF10 5DR Preliminary Bat Roost and Nesting Bird Assessment				
Revision	Date	Prepared by	Checked by	Approved by
1.0	10 February 2025	Anasha Pradhan Assistant Ecologist	Alice Thorne Assistant Ecologist	Paul Hudson MCIEEM Principal Ecologist
Removal of Old Architectural Drawings.				
2.0	2 June 2026	Paul Hudson MCIEEM Principal Ecologist	Paul Hudson MCIEEM Principal Ecologist	Paul Hudson MCIEEM Principal Ecologist

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Summary

Brief and Site Location	This report presents the findings of a preliminary bat roost assessment and nesting bird survey of a building, at 51-59 Penarth Road, Cardiff, CF10 5DR (Ordnance Survey Grid Reference: ST 18206 75516).
Proposed Works	The proposed plans are to demolish the building to facilitate construction of residential blocks.
Survey Methodology	The preliminary bat roost assessment comprised a daytime internal and external inspection of the building, searching for signs of bats and nesting birds. The inspection provides a preliminary assessment of the potential of the site to support roosting bats.
Results of Preliminary Bat Roost Inspection	No signs of bats were found during the internal or external inspection of the building. The building is within a moderate-quality area for foraging and commuting bats.
Suitability of the Building to Support Roosting Bats	The building has low suitability to support roosting bats. Details of the features that led to this assessment are set out in Section 3.2 of the report and are shown in corresponding photographs. Justification for this assessment is provided within Section 4.2.
Evidence of Nesting Birds	No evidence of past or current nesting by birds was noted either within or on the building's exterior.
Requirements for Additional Survey	No additional surveys are required, as the building has been assessed as having low suitability for roosting bats. Given the limited potential impacts and the need for proportionality in survey efforts, works will proceed under ecological supervision as detailed in Section 5.
Predicted Impacts of Development on Bats and Nesting Birds	Based on the conclusion that bats are unlikely to be using the building as a roost site, no negative impacts on bats are anticipated. Based on the conclusion that birds are not currently nesting in the building, no negative impacts on birds are anticipated.
Mitigation and Compensation of Proposed Impacts	The demolition of the building will be supervised. Details are provided within Section 5. Two bat boxes will be installed on the northeastern elevation of the new building and two bird boxes will be installed on the northwestern elevation of the new building; details are provided within Section 5.3. and Section 5.4.
Licensing Requirements for Bats	None required.
Required Actions	Precautionary measures and details of how the works should proceed are set out in Section 5.

1. Introduction

1.1. Brief and Site Location

This report presents the findings of a preliminary bat roost assessment and nesting bird survey of a building at 51-59 Penarth Road, Cardiff, CF10 5DR (Ordnance Survey Grid Reference: ST 18206 75516)[1].

The building is within the boundary of the City of Cardiff Council.

1.2. Site Description

The building is situated on the south-western corner of Cardiff City Centre. The surrounding area is urban and includes a mix of residential and commercial developments.

The sites location is shown on Plan 1: Location Plan.

1.3. Proposed Works

The development proposals involve demolition of the existing building and construction of two residential buildings.

1.4. Legislation and Planning Policy

1.4.1. Bats

All UK bats are protected species. Their breeding sites or resting places[2] (roosts) are fully protected under the Wildlife and Countryside Act 1981[3] (as amended) and the Conservation of Habitats and Species Regulations 2017[4] which continues to apply in UK law through the Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019[5]. Works affecting bats are subject to licensing procedures by Natural Resources Wales (NRW). The legal protection and licensing procedures are summarised in Appendix 1.

1.4.2. Nesting Birds

All wild British birds (when building nests, nesting and sitting on eggs) and their nests and eggs, (with certain limited exceptions[6]) are protected by law under Section 1 of the Wildlife and Countryside Act 1981[7] (as amended) and the Countryside and Rights of Way Act 2000[8]. Some species, such as barn owls (*Tyto*

[1] Latitude and Longitude 51.472673 , -3.1790421/ what3words: gentle.shell.jazz
[2] Resting places are defined as '*areas that are essential to sustain an animal or group of animals when they are not active*' (European Commission, Directorate-General for Environment, 2022). Resting places that are used regularly, either within or between years, must be protected even when not occupied.
[3] https://www.legislation.gov.uk/ukpga/1981/69
[4] https://www.legislation.gov.uk/uksi/2017/1012/contents/made
[5] https://www.legislation.gov.uk/ukdsi/2019/9780111179512
[6] Details of the exceptions are available at https://naturalresources.wales/permits-and-permissions/species-licensing/list-of-protected-species/bird-licensing/bird-licences/?lang=en
[7] https://www.legislation.gov.uk/ukpga/1981/69
[8] https://www.legislation.gov.uk/ukpga/2000/37

alba), are listed in Schedule 1 and have additional protection from disturbance during the breeding season, as do their nests, eggs and dependent young.

1.5. Survey Scope

The preliminary roost assessment (PRA) is a detailed inspection of the exterior and interior of a building looking for features that bats could use for entry/exit and roosting, as well as a search for signs of bats. A search for past and current evidence of nesting birds is also undertaken.

1.6. Reporting

This report aims to:

- Outline the survey methodology used;
- Present the results of the survey including determining the actual or potential presence of bats and nesting birds;
- Determine the need for further targeted surveys; and
- Provide suitable recommendations in line with planning policy and wildlife law, including potential licensing requirements, mitigation, compensation and enhancement measures.

2. Methods

2.1. Desk Study

Maps and aerial photographs of the site and surrounding area, including existing habitats, were assessed. A search for statutory and non-statutory designated sites for bats within a 10km radius was undertaken using NRW Geographic Information System (GIS) data. A 2km search was undertaken for all other statutory and non-statutory conservation designated sites.

A local planning portal search was undertaken. This involved looking for other sites, within the same postcode area, which have previously had bat surveys submitted as a part of their planning applications.

2.2. Field Study

2.2.1. Daytime Internal and External Inspection

A systematic search of the exterior and interior of the building was undertaken following the methodology detailed in Section 5.2 of the Bat Survey Guidelines (Collins 2023). The survey looked for features that bats could use as access points and roosts[9]. In addition, a search was made for the presence of bats or evidence of bat use, such as droppings, feeding remains, urine staining, scratch marks, live or the remains of dead bats and/or squeaking noises. A high-powered torch (Clulite), binoculars and a ladder were available for use, as appropriate during the survey.

The survey was undertaken on 20th January 2025 by Alice Thorne[10] accredited agent on Paul Hudson[11] MCIEEM (NRW Licence Number: S094527-1), and Anasha Pradhan[12].

2.2.2. Assessment of Bat Roosting Suitability

The value of the site for bats (and any potential roost sites therein) was assessed, in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2023) (see Appendix 2). The assessment was based on the relative abundance and quality of potential roost sites, and the habitat features within both the site and the surrounding landscape suitable for roosting, foraging and commuting bats.

Assessment of 'classic' and 'non-classic' winter hibernation potential was undertaken with consideration of Section 4.3.7 and Figure 1 of the Bat Surveys for Professional Ecologists (Collins, 2023).

[9] Bats can utilise gaps approximately 8mmx17mm in size (The Bat Conservation Trust, Cluster-flies leaflet mentions 8mm by 20mm whilst the Bats and Buildings leaflet states 9mm by 17mm).

[10] Alice is currently studying for her degree in Natural History BSc (Hons) at the University of South Wales. She has 2 years previous experience with protected species surveying. Currently Alice is acting as an Assistant Ecologist within Acer. Further details of Alices work can be found at https://www.linkedin.com/in/alicethorne.

[11] Paul graduated with a degree in Environmental Biology from Reading University and a Postgraduate Diploma in Conservation Management from the University of East Anglia. He has worked within ecological consultancy since 2000 and has undertaken bat work since 2001. He holds licences to disturb bats in both Wales (S091671-1) and England (2018-36707-CLS-CLS valid until 2028). Further details of his qualifications and experience can be found at http://linkd.in/19aGTf4.

[12] Anasha graduated with a degree in Environmental Science from the University of Saskatchewan and an MSc in Environmental Biology from Swansea University. She is currently working for Acer Ecology as an Assistant Ecologist and receiving training. Further details of her qualification can be found in https://www.linkedin.com/in/anashapradhan/

2.2.3. Nesting Bird Survey

Searches were carried out for old nests, as well as any signs which might indicate previous nesting activities, such as piles of discarded nesting materials or large aggregations of guano.

2.2.4. Constraints

Temporal Constraints

An ecological survey can only identify what is present on site at the time the survey is conducted. However, habitat usage by species can change over time.

Evidence of Bats

Often bats leave no visible signs of their presence even on the inside of a building, particularly where there are hidden cracks, crevices and voids. It is not always possible to inspect all locations where bats may be present and therefore an absence of bat evidence does not equate to evidence of bat absence.

Restricted Access

Not all parts of the building could be inspected during the preliminary roost assessment. One section of the garage was closed off; however, due to the nature of the garage separation, visibility above head height was possible for the entirety of the garage. The survey is only slightly constrained, and this is not considered to have significantly affected the accuracy of the assessment.

Local Records Centre Data Search

A Local Records Centre (LRC) data search was not undertaken due to the low impact and small-scale nature of the development. It is very unlikely that the development will have any impact outside the footprint of the works. The data search results are considered unlikely to impact the decision-making process, and there is limited potential for key information to have been missed.

This approach is consistent with CIEEM's Guidelines for Accessing and Using Biodiversity Data (2020), which states that in low impact/small-scale scenarios, such as a loft conversion (full or partial), a LRC search may not be required.

3. Baseline Ecological Conditions

3.1. Desk Study

3.1.1. Bat Roosts Reported in Planning Applications Within the Same Postcode

The planning portal search[13] returned no bat roost records from a search of sites within the same postcode area as the proposed development.

3.1.2. Protected Sites

The location of protected sites is shown in Plan 2: Protected Sites.

Statutory Sites Notified for Bats (Special Areas of Conservation (SACs)) or Sites of Special Scientific Interest (SSSIs) Within 10km

No SACs or SSSIs that have been specially designated for bats lie within 10km of the buildings.

Other Protected Sites Within 2km

There is a Local Nature Reserve (LNR) within the proposed within 2km of the building.

Local Nature Reserve (LNR)

Cardiff Bay Wetlands and Hamadryad Park Natural Reserve is within 2km of the site.

Ancient Woodland Sites

The following table shows the ancient woodland sites within 2km of the site:

Table 4: Ancient Woodland Sites Within 2km

Ancient Woodland Site	
Ancient Semi-Natural Woodland (ASNW)[14]	Two
Restored Ancient Woodland Sites (RAWS)[15]	Six
Nearest Area of Ancient Woodland	An unnamed area of RAWS located 0.97km to the north of the site boundary.

Protected Sites Summary

Given the localised nature of the proposed development, the limited ecological connectivity around the site and the distance between the proposed development and ancient woodland sites, as well as the limited

[13] https://www.cardiffidoxcloud.wales/publicaccess/simpleSearchResults.do?action=firstPage
[14] Ancient Semi-Natural Woodland (ASNW) – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years.
[15] Restored Ancient Woodland Sites (RAWS) – woodlands which are predominately broadleaved now and are believed to have been continually wooded for over 400 years. These woodlands will have gone through a phase when canopy cover was more than 50% non-native conifer tree species and now have a canopy cover of more than 50 percent broadleaf.

scope for impacts outside of the footprint of the proposed works, no adverse impacts to the protected sites are likely to occur. These sites are not mentioned further in this report.

3.2. Field Study

3.2.1. Lighting and Ecological Context

Lighting

The site is within an E4: Urban lighting zone, with high district brightness (Institute of Lighting Professionals, 2012). It lies within an urban area between Cardiff City centre and Cardiff Bay with extensive street lighting, commercial properties and residential properties surrounding in all directions. The site will experience high levels of artificial lighting from the streetlighting and properties to the east and west. Although the property is within 100m of the River Taff, the buildings are widely surrounded by artificial light sources and residential properties. This will decrease the quality of foraging and commuting bat habitat[16]. However, Trade Street Lane runs through the middle of the property, where there is reduced street lighting. This area may provide some darker sections amidst the otherwise brightly lit surroundings.

Ecological Context

The habitats surrounding the site include a small number of residential properties, with mainly small gardens and few individual trees. There is also a number of commercial properties in the surrounding area, as well as a large construction sites. The site is closely located to the River Taff but is otherwise ecologically isolated from more significant stands of woodland and other ecologically rich habitats. However, the River Taff offers a valuable habitat corridor that could enhance connectivity to the wider landscape. Therefore, while the immediate surroundings may not offer high-quality foraging and commuting habitat, the site's proximity to the River Taff provides potential foraging and commuting opportunities for bats.

3.2.2. Site Description

3.2.3. Building Description from the Perspective of Bat Habitat

The table below summarises the key features of the building.

Table 5: Key Features of Building

Building Type	The building is a single-storey car service facility. There are 5 garage doors which includes an office and storage space. Brick built with large advertising sings on the exterior.
Roof	The roof is multi-pitched covered with corrugated metal sheeting with lead flashing at the apex (Photos 1-4).
Soffits, Fascias and Bargeboards	Bargeboards are well sealed throughout. (Photo 10)
External Walls	The external walls are constructed from brick and mortar and are well sealed with no visible cracks or crevices. (Photos 1-4 and Photo 9)

[16] Lighting can impact on bats' roosting sites, commuting routes and foraging areas.

Windows and Doors	There are no windows present. There are 5 garage doors and a fire exit which are well sealed. (Photo 7, 8 and 11)
Extensions/Lean-tos/Attached Garage	There is an attached roof made out of metal sheeting on the southern elevation which is in good condition. (Photo 3)
Security Lighting	Security lighting is present on the southern and eastern elevation which are in function. (Photo 3)

Photos Showing the Building and its Features

Photo 1: Eastern Elevation

Photo 2: Western Elevation

Photo 3: Southern Elevation

Photo 4: Northern Elevation. Holes Creating Crevices between the Brick Wall and Adjoining Roof.

Photo 5: Internal View

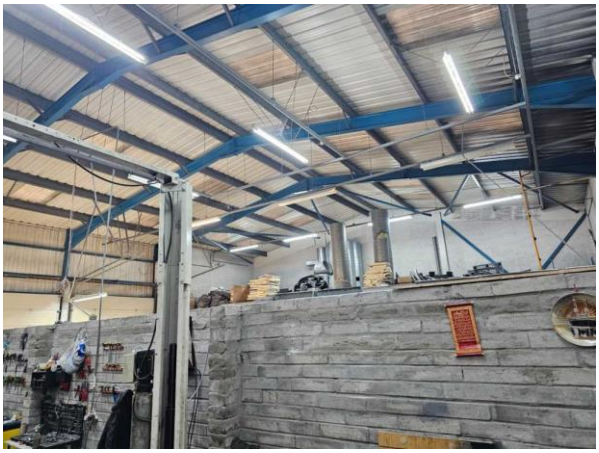


Photo 6: Internal View

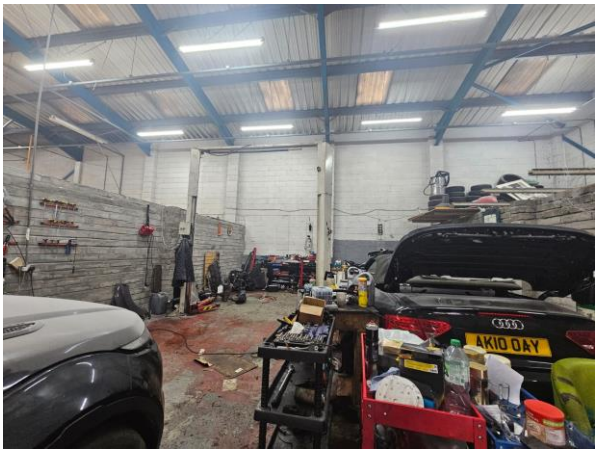


Photo 7: Well Sealed Door

Photo 8: Well Sealed Door

Photo 9: Well Sealed Brick and Mortar

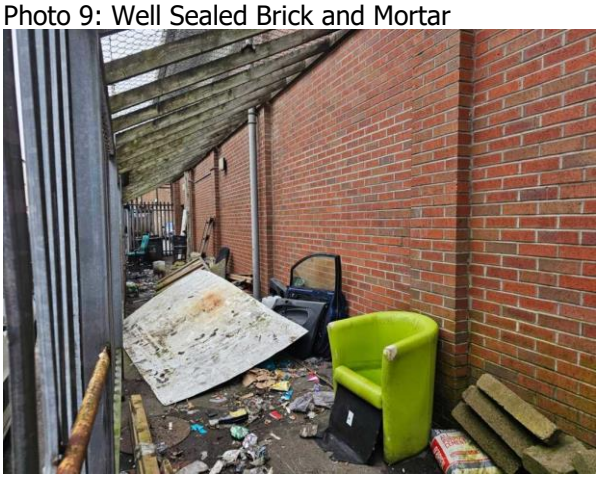
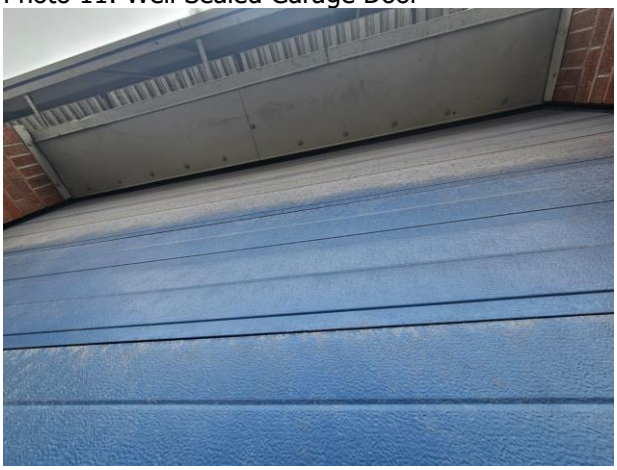


Photo 10: Well Sealed Bardgeboard

Photo 11: Well Sealed Garage Door



3.2.4. Potential Bat Access Points and Bat Roosting Locations

Potential Access Points for Bats

The gap at the garage door in the western elevation provide potential access points for bats. However, this is sub-optimal since the door is made of metal (Photo 12)

Photos Showing Potential Access Points for Bats

Photo 12: Gap above the Garage Door on the Western Elevation

Potential Roosting Features for Bats

The gaps between the metal roof in the eastern elevation provide potential roosting feature for bats. However, the garage is consistently in use, well lit and cold therefore it is not optimal for roosting bats (Photo 13).

Photos Showing Potential Roost Sites

Photo 13: Gaps Between the Roof in the Eastern Elevation

3.2.5. Nesting Bird Survey

No signs of recent nests were found within or on the exterior of the building.

4. Evaluation

4.1. Summary of Preliminary Roost Assessment

The preliminary roost assessment found no evidence of bats roosting within or on the external parts of the building.

4.2. Suitability/of Summer Roosts

The building is assessed as having:

- Low suitability for use by crevice-dwelling bats (*Pipistrellus* species and smaller *Myotis* species such as Brandt's (*Myotis brandtii*) and whiskered bats (*Myotis mystacinus*)), due to the limited potential roosting sites such as the suboptimal potential access point above in the metal framing above the roller shutter, and the crevices atop the brickwork on the eastern elevation;
- Negligible suitability for use by roof-void dwelling bats[17] (long-eared species and large *Myotis* bats, such as Natterer's bat (*Myotis nattereri*) and serotine bats (*Eptesicus serotinus*)) due to the absence of void and accessible gaps. Droppings for these species usually persist and the absence of such droppings suggest that these species are not roosting within the interior of the building; and
- Negligible suitability for use by direct-access species requiring a large access point and large roost space (lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe (*Rhinolophus ferrumequinum*) bats)), due to the lack any large openings.

The survey found no evidence to indicate that the building has been occupied by roosting bats, and the building is assessed as having limited potential to support roosting bats. Section 5.2.9 of the Bat Survey Guidelines (Collins, 2023) states that 'if sufficient areas (including voids, cracks and crevices) of a structure have been inspected and no evidence found (and is unlikely to have been removed by weather or cleaning or be hidden) then further surveys may not be appropriate'.

In this instance the potential for a bat roost being present in the building is unlikely due to the following factors:

- The lack of evidence in the form of droppings, urine staining or feeding remains; and
- Every potential access point/roosting area was inspected systematically with an endoscope/torch and no evidence of bats having roosted was found.

4.3. Potential Winter Roosts

The construction of the building is such that it would not typically be regarded as providing classic over-wintering (i.e hibernation) roosts for bats due to the thermal instability it is likely to experience, the lack of

[17] It should be noted that, in non-maternity roosts, long-eared bats can make use of crevice features without gaining access into a roof void.

deep penetrating crevices, and the lack of evidence of use by bats found during the preliminary roost assessment[18].

4.4. Birds – Interpretation of Nesting Bird Survey

No evidence of past or current nesting by birds was observed during the survey.

[18] There is limited research on where pipistrelle bats hibernate, but current evidence suggests that they may hibernate adjacent to their breeding roosts in secure locations such as cavity walls that have relatively stable temperatures. Other individuals disperse to roost in small numbers in more exposed locations such as around window frames. In exposed locations pipistrelle bats typically hibernate as one or two individuals. Often there are often no obvious external signs of their presence (JNCC, 2004). Because of the highly exposed location of hibernation sites used by some individuals, it is therefore very difficult to completely rule out hibernation use by this species in almost any building that has some very shallow crevices, openings or gaps.

5. Required Actions

5.1. Further Work and Justification for Approach

No further survey work is considered necessary. The building has significant light ingress, cold temperatures, and only one potential roosting feature, providing low suitability for crevice-dwelling bats and negligible potential for lesser horseshoe and roof-void dwelling bats. Additionally, there is no roof void, and the roof is constructed of metal sheeting, which further reduces its suitability as a roost site. Given these factors, and in line with best practice, it is considered disproportionate to delay the works until May 2025 to conduct dusk emergence surveys during the active bat season.

The need for proportionality is a key principle of ecological survey and mitigation. Section 2.2.17 of the *Bat Surveys for Professional Ecologists Version 4* (2023) emphasises that: *"When planning surveys, it is important to take a proportionate approach. The type of survey (or suite of surveys) undertaken and the amount of effort expended should be proportionate to the predicted impacts of the proposed activities on bats."*

Section 5.2.44 of the same guidance further states that: *"If the structure has been classified as having low suitability for bats (see Table 4.1), an ecologist should make a professional judgement on how to proceed based on all of the evidence available and the balance of probabilities. Thought processes and decision-making should be adequately recorded as paper trail. If all areas (including voids, crack and crevices) of a structure have been inspected and no evidence found (and is unlikely to have been removed by weather or cleaning or be hidden), then further surveys are not appropriate"*

Similarly, Section 4.1.1 of the *UK Bat Mitigation Guidelines* (Reason and Wray, 2023) states that: *"The level of detail required in an EcIA should be proportionate to the scale of the development, and the complexity and severity of its potential impacts."*

Additionally, clause 4.1.2 of *BS42020: Biodiversity – Code of Practice for Planning and Development* (2013) notes that: *"Professionals should take a proportionate approach to ensure that the provision of information with the (planning) application is appropriate to the environmental risk associated with the development and its location."*

Clause 5.5 of the same guidance further states: *"The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development."*

Mitigation will be proposed in the form of pre-works endoscope check and ecological supervision during works. A licenced bat ecologist will be present on-site to oversee the demolition of the building, ensuring compliance with wildlife legislation and safeguarding bat population.

A similar approach was taken for a site at NoFit State Circus, Elms Centre, Four Elms Road, Cardiff (24/02535/FUL)[19] where the planning consent was granted.

5.2. Precautionary Measures Including Site Supervision for Bats and Nesting Birds

No evidence of any use by roosting bats was recorded on site and it is therefore highly unlikely that bats or their roosts will be affected by the works. No precautionary timing conditions on works are required. However, as it is not possible to rule out bat use entirely, and there is also a risk of an offence being committed if active birds' nests are present. The following recommendations are made to minimise risks to bats and birds. It is recommended that this Section of the report is conditioned as part of any future planning consent/demolition notice being granted for the site.

5.2.1. Pre-works Endoscope Check

Before the commencement of any works on the building, a detailed endoscopic inspection will be carried out by a qualified bat consultant to assess the presence of bats in accessible sections of the roof. This inspection will involve the use of an endoscope to visually inspect crevices and spaces that are typically not accessible during routine surveys. The aim is to identify any bats or bat roosts that could be affected by the planned works.

If bats are discovered during this inspection, all work will immediately cease until further bat surveys can take place. This ensures that the protection of bats is maintained and that the legal requirements for working with protected species are met.

By conducting this thorough pre-works endoscopy, the project can proceed in an environmentally responsible manner, with any disturbance to bats being minimised.

5.2.2. Site Induction and Toolbox Talk

A suitably qualified bat ecologist will give a 'tool-box talk' to all contractors involved in the demolition works. This will take place prior to the commencement of works. All site workers will be briefed on the legal status of bats, the likely places to find them, the working practices required to minimise and avoid harming or disturbing bats (e.g. the procedure required for removing tiles etc.), and the action to be taken if bats are encountered during the works.

If bats are encountered, the bat will be carefully covered over again. Appropriate advice will be obtained from a suitably qualified bat consultant or Natural Resources Wales and, if necessary, a bat development licence obtained before work can resume.

5.2.3. Ecological On-Site Supervision of Works/Soft Strip

A licensed bat worker will supervise the 'soft strip' whereby all features with bat roosting potential will be exposed and removed. This will minimise the chance of bats being killed/injured.

[19] https://www.cardiffidoxcloud.wales/publicaccess/applicationDetails.do?keyVal=SLVB8KECHSY00&activeTab=summary

Any removal work will be undertaken using hand tools, (i.e. picks, crowbars, slate rippers, bow saws etc.). These features will be carefully removed by hand and contractors will check for the possible presence of bats on the undersides of these features before they are lifted off, prior to discarding or storing them. During the soft strip process, any cracks or crevices that have the potential to be used by bats will be inspected by a licensed bat worker using a high-powered torch to ensure they are not in use. Cavities will be carefully prised open using a crowbar. Wall tops will be exposed so that any wall cavities can be checked. A decision will be made on site at the time by the site ecologist about the extent of areas that need to be supervised.

The removal of such features will be observed and supervised at close quarters by a licensed bat handler from an appropriate viewing position to be provided by the demolition contractor (e.g. scaffolding or lifting platform).

5.2.4. Bat Discovery Action Plan

If bats or significant evidence of bat activity are discovered during the works, all activities will halt immediately. Any live bats will be left undisturbed and carefully covered to preserve their environment, ensuring that access points remain intact.

5.3. Bat Mitigation and Enhancement Measures

As an enhancement measure two externally mounted bat boxes (Appendices 5 and 6) will be installed to provide suitable habitat for crevice-dwelling bats.

The bat boxes will be positioned in the northeastern elevation approximately 15cm below the guttering, to ensure optimal conditions for bat roosting. These locations provide shelter from strong winds while maintaining accessibility for bats. The suggested location of the bat boxes is in Plan 5. The licensed ecologist will oversee the installation of the bat boxes to ensure they are correctly positioned and securely fixed.

5.4. Bird Enhancement Measures

Bird enhancement measures will be incorporated into the building through the installation of nest boxes (Appendix 7) in the northwestern elevation. The suggested location of the bird boxes is in Plan 6.

5.5. Timing of Works

The works will be undertaken between January and March, which will avoid the active bat season of May to September. Although this period falls within the core hibernation period, the roof to be impacted does not contain any 'classic' or 'non-classic' hibernation potential and therefore the works are unlikely to disturb any torpid bats.

5.6. Longevity of Report

In accordance with CIEEM's guidance (CIEEM, 2019), if development works do not begin within twelve to eighteen months of the date of this report, an updated survey may be required to determine if conditions and bat usage has changed since described in the current report.

6. References

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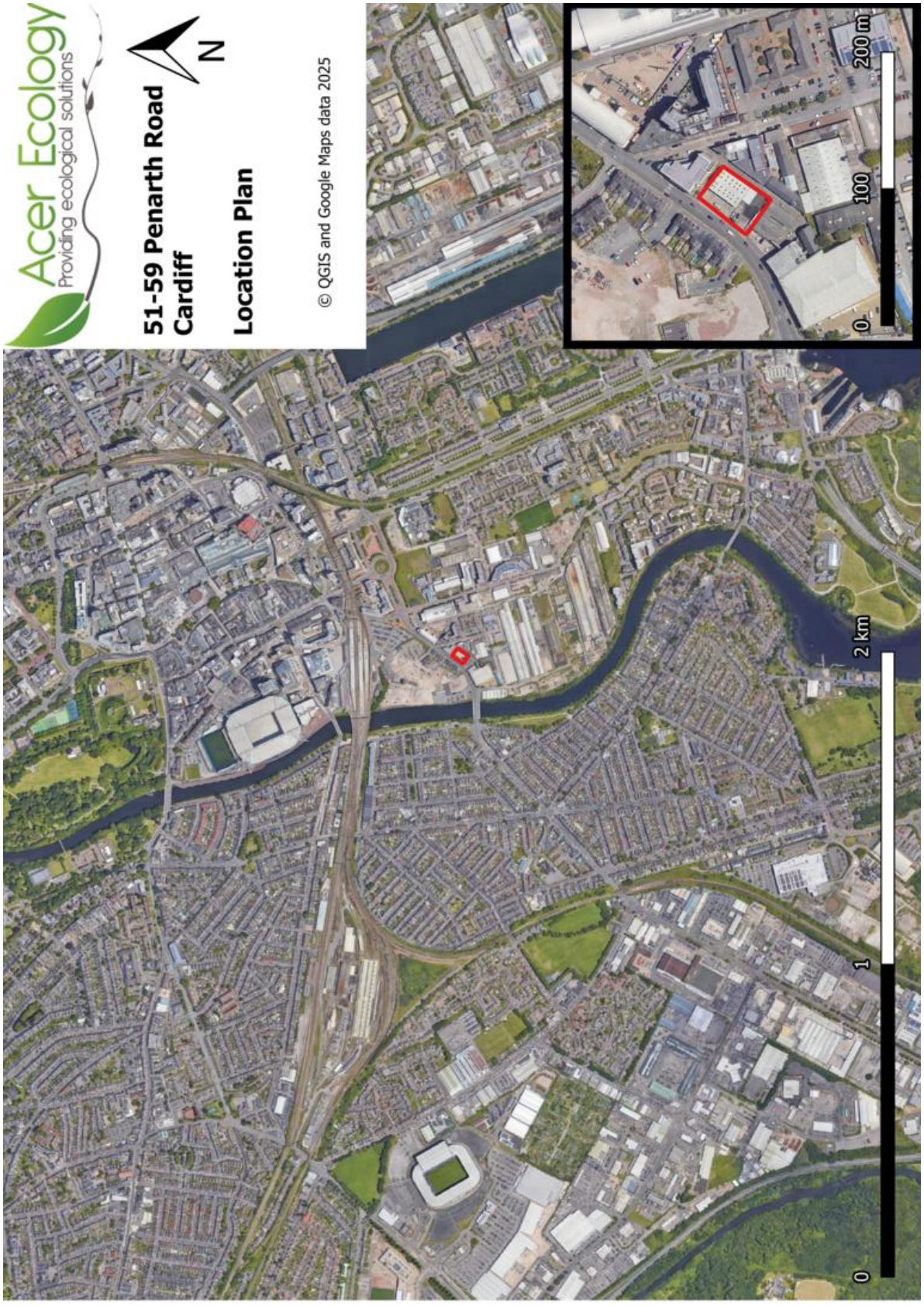
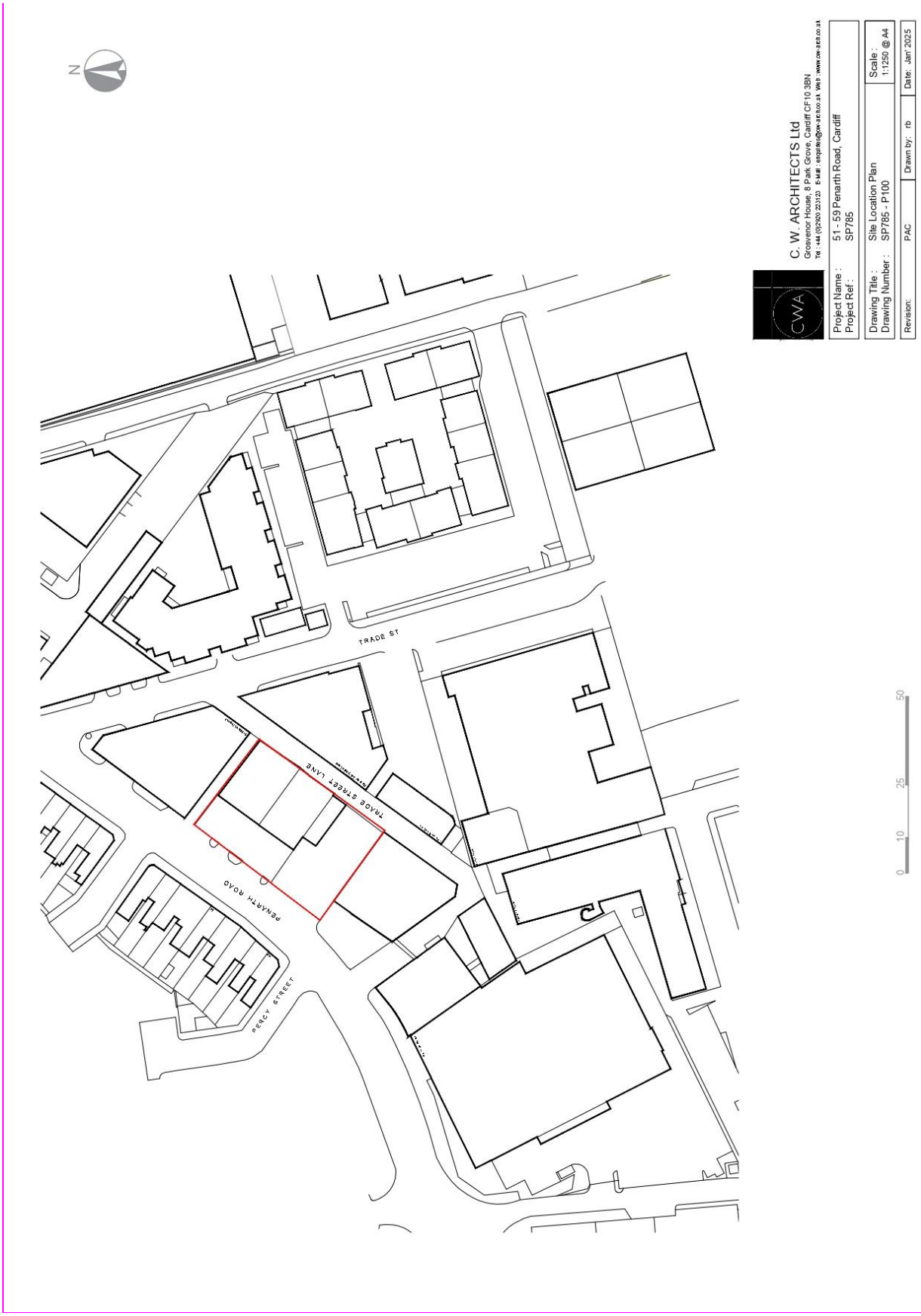
Plan 1: Location Plan

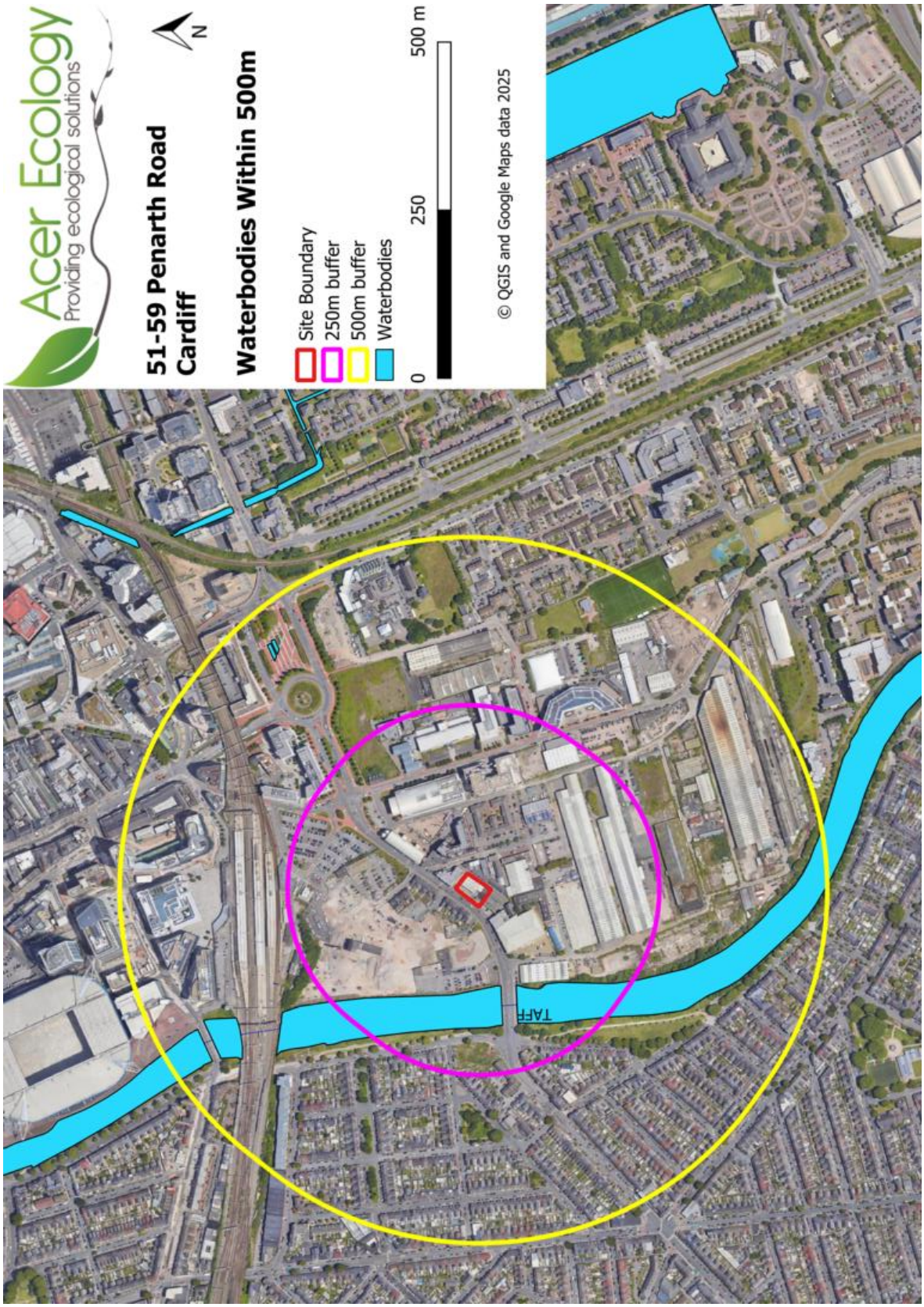


Plan 2: Location/Block Plan

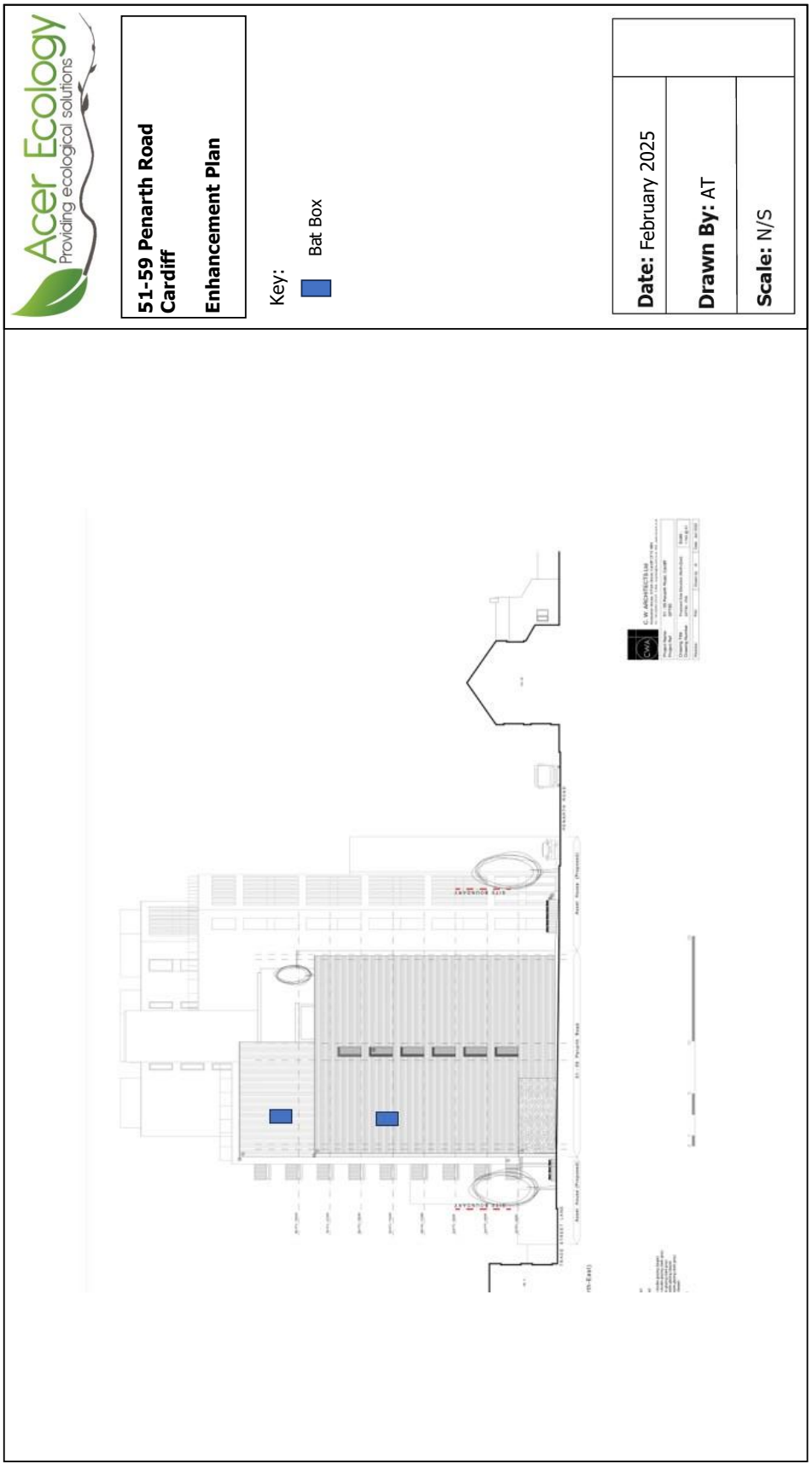


Plan 3: Protected Sites Within 2km

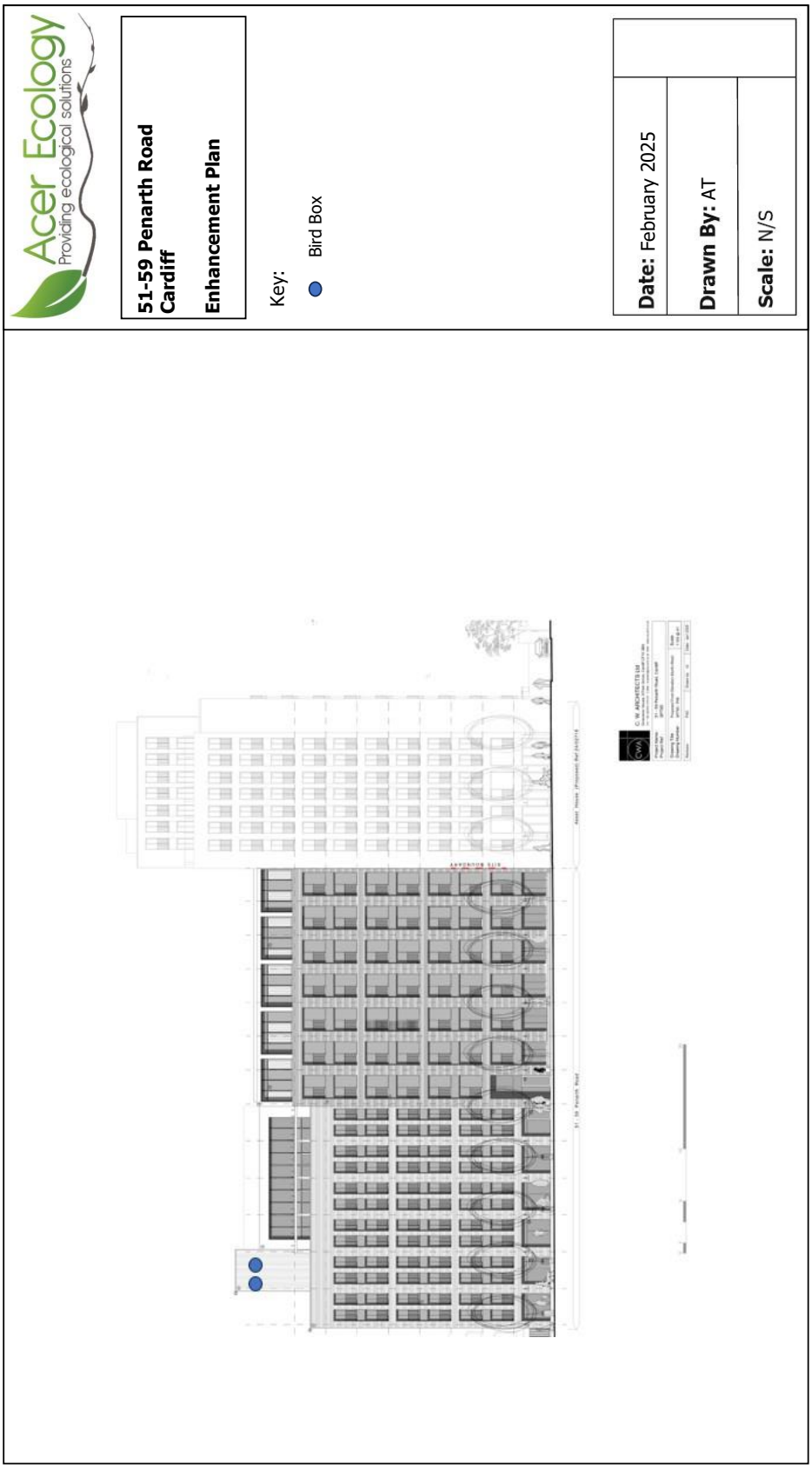
Plan 4: Waterbodies Plan



Plan 5: Enhancement Plan for Bats



Plan 6: Enhancement Plan for Birds



Appendix 1: Bat Ecology and Legislation Protecting Bats and Their Roosts

Bat Ecology

There are 17 known breeding species of bat found in the UK, with additional species recorded as migrants or vagrants. They are all small, nocturnal, flying, insectivorous mammals that are under conservation threat with many having undergone massive population declines over the last century. Some species, such as common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) are relatively common and widespread in the UK, while others, such as greater horseshoe (*Rhinolophus ferrumequinum*) bats, have an extremely restricted distribution.

Most bats will use a variety of roosts of different types throughout the year. The winter hibernation sites typically have cool, humid conditions with a stable microclimate and low levels of disturbance. Most British bats hibernate in caves or artificial structures that fulfil these requirements, such as mines, tunnels and cellars. Bats emerge from hibernation around late March or early April and move into transition or intermediary roosts. Around early May, female bats gather in colonies to form summer or maternity roosts, and it is here where they will give birth between late May and early July. A colony may consist of many individuals (sometimes hundreds of bats) of mixed age and sex. Roosts occur in a variety of habitat types, including tree-holes, caves, buildings and other secure crevices or internal spaces with appropriate stable temperatures and humidity. Bats may change roost locations many times during a year, and colonies may split up and reform during this period. Males occupy solitary roosts in autumn, to which they attract females for mating.

Legislation

All British bat species and any place used for shelter or protection, or as a breeding site or resting place (their roosts) are fully protected under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019. The roosts are protected irrespective of whether bats are present at the time. The aforementioned legislation make it illegal to deliberately or recklessly:

- kill, injure or capture bats;
- disturb bats;
- damage, destroy, or obstruct access to bat roosts (including sites that are currently unoccupied);
- possess or transport a bat or any part of a bat unless acquired legally; or
- sell, barter or exchange bats or parts of bats.

Disturbance is defined as that which is likely to impair bats ability:

- to survive, to breed or reproduce, or to rear or nurture their young;
- to hibernate or migrate; or
- to significantly affect the local distribution or abundance of the species to which they belong.

Habitats Regulations Licensing

If a bat roost will be affected by a development, Natural Resources Wales (NRW) can issue licences under the Habitats Regulations to permit otherwise prohibited acts. Licences for certain activities can be granted providing "three tests" are satisfied, that is:

1. the purposes of "preserving public health or safety, or for reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment";
2. there must be "no satisfactory alternative"; and,
3. the action is "not detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".

Where planning regulations apply, NRW will only issue a licence after planning consent has been granted. The licence application will require the production of a detailed method statement, which sets out the activities to be carried out under the licence to minimise the risk of bats being harmed during construction works and ensure that bats will be conserved during the development of the site. This will need to detail the mitigation proposed (such as the replacement or compensation roost); the timescale and schedule of works, the number, size and locations of bat access points to be provided; the type of materials to be used (roofing material, roof lining, fascias, soffits, and bargeboards etc.); lighting proposals; action to be taken in the event bats are found during works; and a post-development monitoring programme. The method statement will need to be accompanied by scaled plans and maps detailing the bat mitigation features. A cross-section of the access points and roost space is often required. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of development works. In some instances, a method statement is requested by the Local Planning Authority or Natural Resources Wales before the planning application is determined.

Planning Policy Wales

Section 6.4 Paragraph 6.4.5 of Planning Policy Wales Edition 12 (2024) that focuses on Biodiversity and Ecological Networks, Section 6 of The Environment (Wales) Act 2016[20] that details the requirement for enhanced biodiversity and resilience of ecosystems, and TAN 5 all encourage developments in Wales to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.

Part 1, Section 7 of the Environment (Wales) Act 2016 provides a list of the '*living organisms of principal importance for maintaining and enhancing biodiversity in relation to Wales*'. This includes seven bat species (soprano pipistrelle, barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)).

[20] http://www.legislation.gov.uk/anaw/2016/3/contents

Appendix 2: Guidelines for Assessing Potential Bat Roosting Suitability

Protentional Suitability	Roosting Habitats in Structures
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels)
Negligible[21]	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[22] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[23].
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions (see footnote from low suitability) and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions (see footnote from low suitability) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Confirmed Roost	Evidence of bats or use of bats found. If using this include suitability box as well

[21] Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

[22] For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

[23] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Appendix 3: Guidelines for Determining Required Number of Dusk Surveys

Roost Suitability	Minimum Number of Dusk Surveys Required[24]
Negligible	None.
None	None
Low	One survey visit comprising of a dusk emergence survey[25] between May and August for structures.
Moderate	Two separate dusk emergence survey visits[26]. Surveys must occur between May and September[27], with at least one survey between May and August[28].
High	Three separate dusk emergence survey visits. Surveys must occur between May to September, with at least two surveys between May and August.

[24] Adapted from Tables 7.1 and 7.2 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023).
[25] Structures that have been categorised as low potential can be problematic, and the number of surveys required should be judged on a case-by-case basis (see para 5.2.44). In some cases, more than one survey may be needed, particularly where there are several buildings in this category.
[26] Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more.
[27] September surveys are both weather- and location-dependant. Conditions may become more unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season. September surveys are likely to miss maternity roosts due to dispersal before this time, but may still pick up mating roosts.
[28] Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more. Survey timings should consider the prevailing conditions in the year of survey, which will vary geographically. In years with a cold spring, the surveys should not be started in early May or all be completed in May. The surveys should maximise the possibility of detecting maternity roosts, which can switch roosts between pregnancy and lactation, and the optimum coverage includes the pre-parturition, post-parturition, and mating periods.

Appendix 4: Guidelines for Assessing Bat Habitat Suitability[29]

Suitability	Commuting and Foraging Habitat
Negligible	Negligible habitat features on-site likely to be used by commuting and foraging bats.
Low	Commuting Habitat Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape. Foraging Habitat Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Commuting Habitat Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens. Foraging Habitat Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Commuting Habitat Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Foraging Habitat High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Proximity to Known Bat Roosts The site is close to and connected to known roosts.

[29] Taken from Table 4.1 of the Bat Survey Guidelines (2023) 4th edition.

Appendix 5: WoodStone Chillon Bat Box

Description:

This bat box can accommodate up to 15 common pipistrelle bats which are very sociable mammals and prefer to live in colonies. The 'landing ramp' and interior (made from wood and concrete) are textured for extra grip.

WoodStone® range of wildlife care products have been designed and developed as part of the professional Vivara Pro range and are constructed from a mix of concrete and wood fibres, guaranteeing longevity and durability.

Approx. weight: 5kg

Available from: https://www.birdfood.co.uk/chillon-woodstone-bat-box

Appendix 6: WoodStone Beaumaris Bat Box Maxi

Details:

The attractive design of this bat box is suitable for crevice roosting bats and has a rough interior to provide lots of grip. Bats need to increase their body temperature before flight so prefer warm roosting spots, which is why many bat boxes have a black exterior to absorb heat from the sun. WoodStone isn't just strong, it also has good thermal insulation, reducing temperature fluctuations inside the box and helping to make this an ideal roost site.

The Beaumaris Bat Box is made from 100% WoodStone which is incredibly durable, so this product has a 10 year warranty.

Approx. weight: 9kg

Available from: https://www.birdfood.co.uk/beaumaris-bat-box-large

Appendix 7: Examples of Closed and Open-Fronted Nest Boxes

Schwegler Bird Home

This nest box is for installation on external walls of buildings (including sheds and garages) and is suitable for a range of bird species. With a 32mm hole it allows entry to species such as coal tit, blue tit, great tit, redstart, nuthatch, house sparrow, tree sparrow and other species.

The recommended height is between 1.5m and 5m above ground with a south-east to south-west orientation.

Cleaning after the breeding season (wait until October) is advised to provide a clean nest for the following year, or utilisation by non-migratory birds for winter roosting.

Schwegler Bird Home

These should never be hung on trees or bushes as this could allow small predators to access the interior and predate nesting birds.

This nest box should always be installed on the external walls of houses, barns, garden sheds etc. It is designed to be hung so that the entrance is to one side (90° angle to wall).

Correctly positioned it can attract species such as black redstart, pied wagtail, grey spotted flycatcher, and occasionally robins and wrens.