



**Smart Electrical Systems,
3-4 Phoenix Industrial Estate
Goat Mill Road,
Dowlais,
Merthyr Tydfil**

Preliminary Roost Assessment

September 2025 (V2)

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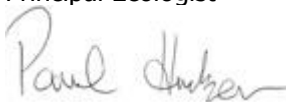
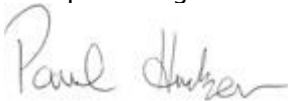
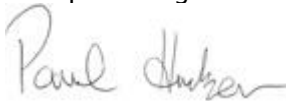
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4.0	02 September 2025	Jack Martin Assistant Ecologist 	Paul Hudson MCIEEM Principal Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

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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 site including a commercial building and shed at Smart Electrical Systems, 3-4 Phoenix Industrial Estate, Goat Mill Road, Dowlais, Merthyr Tydfil, CF48 3TD (Ordnance Survey Grid Reference: SO 0635 0730).
Proposed Works	The development proposals include: • Removal of the approved two-storey glazed front extension and replacement with three large glazed windows. • Alteration of the southernmost roof from a pitched to a mono-pitched form with rooflights. • External elevation changes comprising: ○ North elevation: insertion of new ground floor windows, removal of an existing doorway and creation of a new doorway. ○ South elevation: insertion of a new upper-level door. ○ East elevation: removal of two pedestrian doors, a large roller shutter door, and a roller shuttered window. ○ Extending the warehouse at the rear by 6.5 meters sideways to increase operational capacity, using high-quality materials. ○ Introducing a new private access point with security controls for authorized personnel and vehicles, including a paved road suitable for heavy-duty traffic. ○ Enhancing site security with 2.0m high anti-climb steel fencing and automated security gates.
Survey Methodology	The preliminary bat roost assessment comprised a daytime internal and external inspection of the commercial building and shed, 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	The preliminary roost assessment found no evidence of bats roosting within or on the external parts of the commercial building, or on the external parts of the shed.
Suitability of the Site to Support Roosting Bats	The commercial building has negligible suitability to support roosting bats, whilst the shed has low suitability to support roosting bats. Details of the features that led to this assessment are set out in Section 3.2 of this report and are shown in the corresponding photographs. Justification for this assessment is provided within Section 4.2.
Evidence of Nesting Birds	No signs of recent nests were found within or on the exterior of the commercial building or on the exterior of the shed.
Requirements for Additional Survey	None required.
Mitigation and Compensation of Proposed Impacts	Detailed mitigation measures are set out in Section 5 which include the following: • Precautionary Measures for Bats; • Enhancement Measures for Bats; and • Precautionary Measures for Birds.
Licensing Requirements for Bats	No further survey work is considered necessary. A bat development licence is not required as the survey indicates that the commercial building has negligible suitability for bats and the shed has only one sub-optimal access point and roosting feature for bats. It will be clearly understood, and contractors made aware that in the event of any bats being found on or within the shed, the contractor must halt works. Appropriate advice will

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	be obtained from a suitably qualified bat consultant or NRW and, if necessary, a bat development licence obtained before work can resume.
Required Actions	Detailed recommendations are given in Section 6 of this report. These include precautionary methods and guidance for action to take if bats are found during the works.

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 site including a commercial building and shed at Smart Electrical Systems, 3-4 Phoenix Industrial Estate, Goat Mill Road, Dowlais, Merthyr Tydfil, CF48 3TD (Ordnance Survey Grid Reference: SO 0635 0730)¹.

The site is within the boundary of Merthyr Tydfil Council.

1.2. Site Description

The site is located 1.82km north-east of Merthyr Tydfil town centre, in the village of Dowlais. It is part of a warehouse complex, adjoining Abox Storage Solutions on its northern boundary. A dense, tree-lined area 35.66m north-west separates Goat Mill Road from a hardstanding area of carpark, which wraps around the southern boundary of the commercial building to the east, providing road access to the site. A stream lies 60m south, bordered by trees, grassland, and shrubbery. The A4060 is located 0.26km south-east, beyond which, 0.99km south-east, lies the Ffos-y-fran Land Reclamation Scheme, a major opencast coaling operation with water-filled areas. A shed is located to the south-western front of the commercial building.

The site's location is shown on Plan 1: Location Plan.

1.3. Proposed Works

The proposed development includes the removal of the previously approved two-storey glazed front extension, to be replaced with three large glazed windows, enhancing the building's appearance and natural light intake. Alterations to the southernmost roof are also proposed, replacing the existing form with a mono-pitched design incorporating rooflights. Further external changes include the insertion of new ground floor windows and the reconfiguration of doorways on the north elevation, the addition of an upper-level door on the south elevation, and the removal of two pedestrian doors, a large roller shutter door, and a roller-shuttered window on the east elevation to streamline the façade and improve functionality. At the rear, the warehouse will be extended sideways by 6.5 metres to increase operational capacity, with construction using high-quality materials consistent with the existing structure. A new private access point with security controls for authorised personnel and vehicles will be introduced, supported by a paved road suitable for heavy-duty traffic. Site security will be further enhanced through the installation of 2.0-metre-high anti-climb steel fencing and automated security gates.

A planning application has been submitted under P/25/0110².

¹ Latitude and Longitude: 51.756475 , -3.3584557/ what3words: beams.sculpture.kind

² [Documents for reference P/25/0110: Public Access](#)

Existing and proposed plans can be found in Drawings 1 and 2: Development Proposals (Planning Reference number: P/25/0110.).

1.4. Legislation and Planning Policy

1.4.1. Bats

All UK bats are protected species. Their breeding sites or resting places³ (roosts) are fully protected under the Wildlife and Countryside Act 1981⁴ (as amended) and the Conservation of Habitats and Species Regulations 2017⁵ which continues to apply in UK law through the Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019⁶. 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 exceptions⁷) are protected by law under Section 1 of the Wildlife and Countryside Act 1981⁸ (as amended) and the Countryside and Rights of Way Act 2000⁹. Some species, such as barn owls (*Tyto 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 buildings 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

³ 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.

⁴ <https://www.legislation.gov.uk/ukpga/1981/69>

⁵ <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

⁶ <https://www.legislation.gov.uk/ukdsi/2019/9780111179512>

⁷ 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>

⁸ <https://www.legislation.gov.uk/ukpga/1981/69>

⁹ <https://www.legislation.gov.uk/ukpga/2000/37>

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- 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 commercial building and shed 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 roosts¹⁰. 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) and a ladder were available for use, as appropriate during the survey.

The survey was undertaken on 18th October 2024 by Alice Thorne¹¹ and Charlotte Ingram¹².

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).

¹⁰ 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).

¹¹ Alice is currently studying for a BSc (Hons) Natural History degree from the University of South Wales. Alice is currently in her third season of bat surveying, working as an assistant ecologist at Acer Ecology. Alice acted as an accredited agent on Paul Hudson's licence (S094527).

¹² Charlotte graduated from the University of South Wales with a degree in International Wildlife Biology. She is currently working for Acer Ecology as an Assistant Ecologist and is in her second season of bat surveying. Charlotte acted as an accredited agent on Paul Hudson's licence (S094527).

2.2.3. Nesting Bird Survey

A visual search was undertaken for active bird nests, as well as any signs which might indicate either past or current nesting, such as guano, singing birds, birds carrying nesting material, food items, faecal sacs and calling chicks.

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 at least 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 to External Parts of the Commercial Building

The western and northern external parts of the commercial building could not be inspected during the preliminary roost assessment. Metal fencing surrounds the direction parts of the commercial building and so a close-up inspection was not possible and instead, observations were made at a distance using binoculars which made it difficult to see certain features of the corrugated building such as the corrugated metal roof sheets, and prevented a search for evidence of bats.

Survey Restrictions due to Health and Safety Considerations

Due health and safety considerations, not all parts of the mezzanine floor could be inspected, as the thick insulation covering the floor made moving difficult and potentially dangerous.

However, this constraint is not considered to have affected the overall assessment of the commercial building.

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. Current proposals suggest no land will be lost or linear features severed. The overall impact on biodiversity is likely to be localised and of low significance. 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.

3. Baseline Ecological Conditions

3.1. Desk Study

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

The planning portal search¹³ 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 Plans 3 and 4: Protected Sites Within 2km and 10km respectively.

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

The Cwm Clydach SSSI¹⁴ is the only SSSI designated for bats located within 10km of the site. At the nearest point this site lies 9.52km to the north-west of the proposed development site. This SSSI is designated as lesser horseshoe (*Rhinolophus hipposideros*) bats have been observed foraging within the woodland and several caves are known to be used as roosts. It is also known for its geological value.

Other Protected Sites Within 2km

There are no statutory designated sites such as SACs, SSSIs, National Nature Reserves (NNRs) or Local Nature Reserves (LNRs) either within the proposed development site or within 2km of the commercial building.

Country Parks

The site does not lie within 2km of any Country Parks

Ancient Woodland Sites

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

Table 1: Ancient Woodland Sites Within 2km

Ancient Woodland Site	Number Within 2km of Site
Ancient Semi-Natural Woodland (ASNW) ¹⁵	Two
Restored Ancient Woodland Sites (RAWS) ¹⁶	Two
Nearest Area of Ancient Woodland	An unnamed area of RAWS 1.48km to the south of the site.

¹³ <https://publicaccess.merthyr.gov.uk/online-applications/advancedSearchResults.do?action=firstPage>

¹⁴ https://naturalresources.wales/media/641903/SSSI_0381_Citation_EN001b37a.pdf

¹⁵ 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.

¹⁶ 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.

Protected Sites Summary

Given the small scale and localised nature of the proposed development, the distance between the proposed development and any designated or non-designated sites, as well as the limited 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 E3: Suburban lighting zone, with medium district brightness (Institute of Lighting Professionals, 2012).

The site is situated within a suburban area of the village of Dowlais. Although there is broadleaved woodland directly to the south of the site, the commercial building and shed is in a commercial zone with streetlighting and properties 0.32km to the north. The commercial building and shed is located on Goat Mill Road, lined with several streetlights are present. Additional streetlights are present along the access road leading to the warehouse complex and around the car park, resulting in significant artificial lighting. This would generate extensive artificial lighting, decreasing the quality of foraging and commuting bat habitat¹⁷.

Ecological Context

The site is surrounded by a variety of habitats. To the north-west, a dense, tree-lined area, located 35.66m away, separates Goat Mill Road from the building's hardstanding carpark. Residential properties with interconnected back gardens lie 0.32km to the north, while shrubbery and grassland surround a stream 60m to the south. Approximately 2.24km to the east, beyond the Ffos-y-fran Land Reclamation Scheme, the landscape transitions into a rural setting dominated by agricultural fields and grassland. However, the A4060, positioned 0.26km south-east, lies between the site and this rural area. Although these habitats are not entirely continuous, they can still act as a habitat corridor, linking the site to the wider rural landscape via tree-lined roads, linked back gardens, and streams and therefore offer a moderate-quality bat foraging and commuting habitat.

3.2.2. Building Description from the Perspective of Bat Habitat

The tables overleaf describe the key features of the commercial building and the shed.

¹⁷ Lighting can impact on bats' roosting sites, commuting routes and foraging areas.

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Table 2: Key Features of the Commercial Building

Building Type	The commercial building is a two-storey structure constructed of brick and mortar and corrugated metal (Photo 1).
Roof	The roof is dual-pitched and constructed from both corrugated metal and plastic roof sheeting. The plastic allows light ingress into the building. The metal trim is well sealed on all elevations of the building (Photo 2).
External Walls	The external walls are constructed of brick and mortar and corrugated metal. The brick is in good condition with no gaps and the corrugated metal sheeting is well aligned and in good condition (Photo 3).
Doors	The shutter door to the building is found on the southern front and is constructed of metal. The shutter door is in good condition with no gaps around it (Photo 4).
Roof Lining	The roof is lined with polystyrene (Photo 5).
Roof Construction	The roof is constructed of wooden rafters and steel beams (Photo 6).
Insulation of Mezzanine	Some insulation is present on the mezzanine (Photo 6).
Floor	The floor is constructed of concrete (Photo 7).
Security Lighting	There is one security light on the southern front of the building. It was not on at the time of the survey (Photo 2).

Table 3: Key Features of the Shed

Building Type	The shed located to the south-western corner of the commercial building is a one-storey structure constructed of timber boards and corrugated metal sheeting (Photo 8).
Roof	There are two dual-pitched roofs on the shed which are constructed of corrugated metal sheeting (Photo 9). The metal trim on all elevations of the building is well aligned with no gaps, apart from one gap above the door at the apex of the gable end on the northern elevation, which could be a potential roosting feature for bats (Photo 10). The roof is lined with bitumen felt underneath the roof sheeting.
External Walls	The walls are constructed of timber boards which are in good condition (Photo 9).

Photos Showing the Commercial Building and its Features

Photo 1: Southern Front Elevation



Photo 2: Roof at the Southern Elevation



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Photo 3: External Wall at the Southern Elevation



Photo 4: Shutter Door at the Southern Elevation



Photo 5: Interior Roof 1

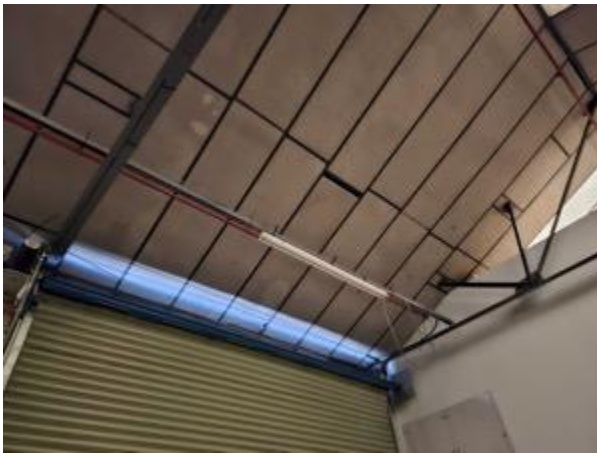


Photo 6: Interior Roof 2



Photo 7: Interior Floor



Photos Showing the Shed and its Features

Photo 8: North-Western Front Elevation



Photo 9: Roof at the North-Western Elevation



Photo 10: Gap Underneath the Metal Trim at the Apex (Circled)



3.2.3. Potential Bat Access Points and Bat Roosting Locations

Potential Access Points for Bats in the Commercial Building and Shed

No potential access points for bats were recorded in the commercial building during the survey. The metal trim is sealed tightly to the walls beneath, the brick and corrugated metal walls possess no gaps, and the shutter door is fitted tightly to its frame which in turn fits tightly to its respective aperture. This has resulted in there being no gaps of sufficient size to permit bats to access to potential roost sites.

Bats could gain entry into the interior of the shed through the gap above the door at the apex of the gable end on the northern elevation. However, the internal inspection of the shed revealed no light ingress (suggesting the gap doesn't allow access into the shed) and no evidence of use by bats. As the shed is used as a private gym space and is in use daily, it is unlikely this access point would be utilized by bats.

Potential Roosting Features for Bats in the Commercial Building and Shed

No potential roost sites were recorded during the internal and external survey of the commercial building. The commercial building has metal trim which is sealed tightly to the walls beneath, brick and corrugated metal walls which possess no gaps, a shutter door which is fitted tightly to its frame.

The shed has one potential roost feature which is found above the door at the apex of the gable end on the northern elevation (Photo 10).

3.2.4. Nesting Bird Survey

No signs of recent nests were found within or on the exteriors of the commercial building or the shed.

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 commercial building, or on the external parts of the shed.

4.2. Suitability of Summer Roosts

The commercial building is assessed as having:

- Negligible 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 lack of potential roosting sites such as gaps between the roofing sheets and the high amount of light ingress in the building;
- Negligible suitability for use by roof-void dwelling bats¹⁶ (long-eared species and large *Myotis* bats, such as Natterer's bat (*Myotis nattereri*) and serotine bats (*Eptesicus serotinus*)), due to the lack potential access points and the high amount of light ingress in 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 of large suitable access points.

The shed is assessed as having:

- Low suitability for use by crevice-dwelling bats (*Pipistrellus* species and smaller *Myotis* species such as Brandt's and whiskered bats), as there is only one potential roosting feature and access point leading into the shed;
- Negligible suitability for use by roof-void dwelling bats¹⁶ (long-eared species and large *Myotis* bats, such as Natterer's bat and serotine bats), due to the lack potential access points; and
- Negligible suitability for use by direct-access species requiring a large access point and large roost space (lesser horseshoe and greater horseshoe), due to the lack of large suitable access points.

Section 5.2.44 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 are not be appropriate*'.

In this instance, the potential for a bat roost being present within the shed is unlikely due to the lack of evidence of such use and limited potential access points.

A further dusk survey to rule out use by bats entirely is disproportionate to very limited potential for use and the small scale of the proposed works.

For the reasons stated above, no further surveys are recommended, however, precautionary and compensation measures are recommended as an alternative, proportionate approach.

4.3. Potential Winter Roosts

The site does not contain any 'classic' hibernation sites such as underground features such as a cellars or basements or 'non-classic' hibernation sites such as crevices between stonework.

4.4. Birds - Interpretation of Nesting Bird Survey

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

5. Required Actions

5.1. Licensing Requirements for Bats

No further survey work is considered necessary. A bat development licence is not required as the survey indicates that the commercial building has negligible suitability for bats and the shed has only one sub-optimal access point and roosting feature for bats.

It will be clearly understood, and contractors made aware, that in the event of any bats being found the contractor must halt works. Appropriate advice will be obtained from a suitably qualified bat consultant or NRW and, if necessary, a bat development licence obtained before work can resume.

5.2. Precautionary Measures for Bats on the Commercial Building

No evidence of any use by roosting bats was recorded on or within the commercial building and the building has been assessed as having negligible suitability. 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, 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 will be clearly understood, and contractors made aware that in the event of any bats being found, the contractor must halt works. Appropriate advice will be obtained from a suitably qualified bat consultant or NRW and, if necessary, a bat development licence obtained before work can resume;
- Contractors will check for the possible presence of bats on the undersides of the metal trim.
- The services of an appropriately qualified and licensed ecological consultant will be available on an 'on-call' basis at all stages of the works to deal with any unexpected encounters with bats or nesting birds. Contact details of such will be held on site. Acer Ecology Ltd. could be retained to provide this support.

5.3. Precautionary and Enhancement Measures for Bats on the Shed

The implementation of the following precautionary measures will minimise the potential for disturbing, injuring or killing bats during demolition works to the shed.

5.3.1. Timing of Works

No timing restrictions are considered necessary for the demolition works to the shed. If demolition works take place between March and August an inspection for nesting birds should be undertaken immediately prior to works commencing.

5.3.2. Site Induction and Tool-Box Talk

A suitably qualified bat ecologist will give a 'tool-box talk' to all contractors involved in demolition works to the shed that could affect bats. 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 metal trim), and the action to be taken if bats are encountered during the works.

5.3.3. Ecological On-site Supervision of Works/Soft Strip

A licensed bat worker will supervise the 'soft strip' of the shed whereby all features with bat roosting potential will be exposed and removed. This will include (but not be limited to) underneath the metal trim and underneath the roofing sheets. This will minimise the chance of bats being killed/injured.

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.

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).

If work takes place during the winter period, works will avoid encountering torpid bats in roof structures by only working during periods when temperatures have not dropped below 10°C on four consecutive days and nights. However, if any torpid bats are discovered, they will be taken temporarily into care and fed until such time when conditions become suitable for release. The bat would then be released at dusk near the building.

The licensed bat worker will remain available on an 'on-call' basis during all subsequent stages of the works to deal with any unexpected encounters with bats or nesting birds.

5.3.4. Bat Discovery Action Plan

If bats are discovered during supervised work, all activities will be halted immediately. The situation will be managed to ensure the bat is not harmed, such as by carefully placing roof material back over the bat. The licensed bat worker will be consulted and a protected species (EPS) licence will be sought from NRW before any work can continue.

5.3.5. Enhancement Measures for Bats

The Environment (Wales) Act 2016, Planning Policy Wales (Edition 12, February 2024), TAN 5 *Nature Conservation and Planning* (2009) and Merthyr Tydfil Supplementary Planning Guidance Note 5: Nature and Development (2015)¹⁸ stipulate that development projects minimise ecological damage and contain elements of ecological enhancement.

¹⁸ <https://www.merthyr.gov.uk/media/1594/spg-5-nature-and-development.pdf>

The implementation of the following measures will enhance the site for roosting bats.

5.3.6. Roosting Provision for Bats

Ecological enhancements measures will be provided within the proposal and will involve one Beaumaris WoodStone bat box being installed onto or contained within the fabric of the western exterior wall of the commercial building (see Appendix 5). Ideally, the bat box will be installed at a height of 4m from ground level.

The bat box will be retained on site after completion of the works in-perpetuity as a biodiversity enhancement¹⁹. The position of the bat box is shown on Plan 5.

5.3.7. Sensitive Lighting Strategy

It is currently unknown whether additional external lighting is to be provided post-development. Nevertheless, external lighting will be absent from the western elevation surrounding the bat box and the southern area along the treeline (see Plan 5), apart from low key lighting of doorways, thus creating a 'dark corridor' to avoid causing disturbance to roosting bats that commute to and from the building. The exact models of lighting are yet to be finalised²⁰. Lighting of this treeline will be less than 0.5 lux.

The lighting design for the site will be of a 'bat-friendly' specification, complying with the Institute for Lighting Professionals' and Bat Conservation Trust's guidance (2023) and kept to the minimum level which meets the needs of security and health and safety²¹. The unnecessary lighting of habitats which could potentially be used by foraging bats such as nearby trees, hedgerows etc. will be avoided.

External lighting will be minimised and installed at low-level only (i.e. no higher than eaves level and lower than 2.4m) and directed downward (i.e. below the horizontal plane with no upward tilt). Fully shielded lights with front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill. The lighting source will not be visible.

Lighting will not be located in the vicinity of, or shine towards, the bat access points or possible/actual commuting routes and flight lines, thus maintaining a 'dark corridor' and avoiding/minimising disturbance to roosting bats. Any security lights used will operate on a passive infrared (PIR) motion sensor sensitive to large objects only, to avoid constant triggers by bat passes and with timers set on a short duration (i.e. a maximum 'on' time of one minute) to reduce the amount of 'lit time'. The lights will either have an integrated LED light source, or use LED bulbs. They will be low intensity (i.e. circa 11 watts) and have a warm white colour temperature of 3000K or less (ideally 2700K if commercially available). White, blue and

¹⁹ If the bat boxes will not be retained on site, their removal should be detailed within the bat licence method statement. Its removal should be undertaken by a licenced bat worker.

²⁰ It is likely that if planning consent is granted a condition will be applied requiring the submission of a lighting strategy which will include: a) lighting type, positioning and specification; b) measures to minimise light spill from glazed areas; and c) drawings setting out light spillage in key areas for bats based on technical specifications.

²¹ Institution of Lighting Professionals & Bat Conservation Trust (2023) *Bats and Artificial Lighting in the UK*. Guidance Note (GN08/23). Available online at <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

green²² lighting sources including mercury or metal halide, CPO and CDO (ceramic discharge metal-halide) bulbs which have a significant effect on bats will be avoided. Examples of suitable light fittings are provided within Appendix 6.

5.4. Precautionary Measures for Birds

5.4.1. Nesting Bird Provision

Bird nesting opportunities on and adjacent to the site could be enhanced by the installation of one standard hole nest boxes and one open fronted nest boxes (see Appendix 7) on suitable trees in proximity of the site or on the masonry of the commercial building itself. They will be located in dense cover, at least 3m above ground level and ideally orientated so that they face north or east. The bird box should be positioned away from horizontal branches directly below or above which could easily be accessed by cats. Ash trees should be avoided due to future problems with Chalara or ash dieback (*Hymenoscyphus fraxineus*).

5.5. 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.

²² It should be noted that birds are shown to be less affected by green lights.

6. References

Bat Conservation Trust (2022) *Interim Guidance Note: Use of Night Vision Aids for Bat Emergence Surveys and Further Comment on Dawn Surveys*. Available online at <https://cdn.bats.org.uk/uploads/pdf/Interim-guidance-note-on-NVAs-May-2022-FINAL.pdf?v=1653399882>

BSI (2013) *BS 42020:2013 Biodiversity – Code of practice for planning and development*. British Standards Institution, London.

CIEEM (2019) *Advice Note on the Lifespan of Ecological Reports and Surveys* Available online at <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

CIEEM (2020) *Guidelines for Accessing, Using and Sharing Biodiversity data in the UK*. <https://cieem.net/wp-content/uploads/2016/03/Guidelines-for-Accessing-and-Using-Biodiversity-Data-March-2020.pdf>

Collins, J (ed) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*. The Bat Conservation Trust, London.

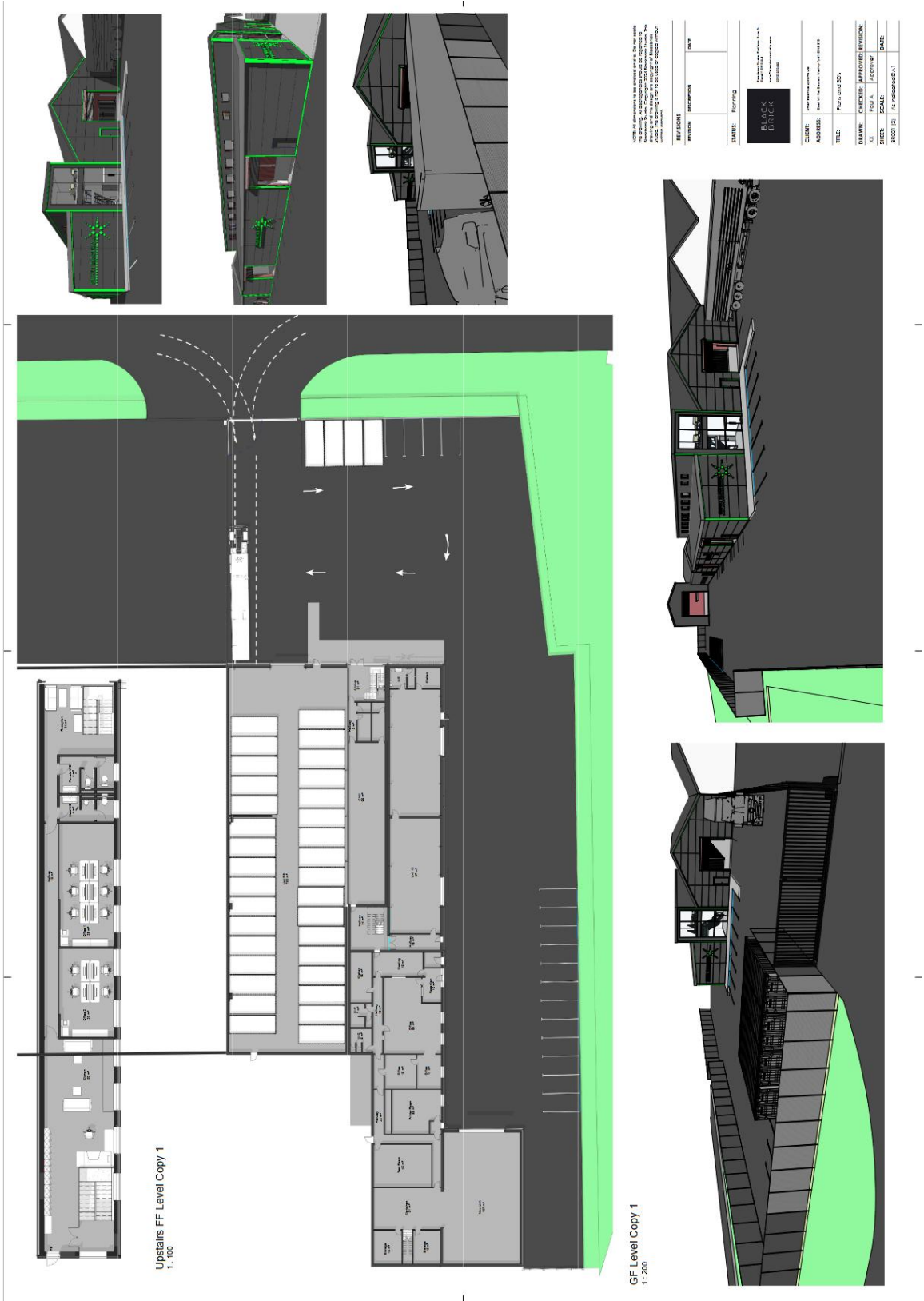
European Commission, Directorate-General for Environment (2011) *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*: final version, February 2007. European Commission.

Institution of Lighting Professionals & Bat Conservation Trust (2023) *Bats and Artificial Lighting in the UK*. Guidance Note (GN08/23). Available online at <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>.

Merthyr Tydfil County Borough Council (2015) *Merthyr Tydfil LDP 2006 – 2021*. Supplementary Planning Guidance Note 5: Nature and Development. Available online at <https://www.merthyr.gov.uk/media/1594/spg-5-nature-and-development.pdf>.

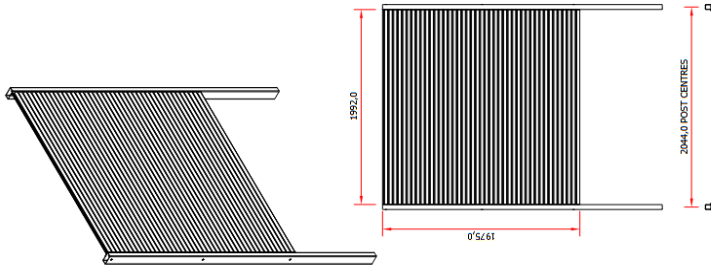
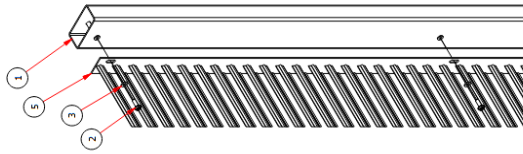
Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021) *Birds of Conservation Concern 5: the population status of birds in the UK, Channel Islands and Isle of Man*. *British Birds* 114. December 2021. 723–747 Available online at <https://britishbirds.co.uk/content/status-our-bird-populations>.

Drawing 3: Plans (3D)



Drawing 7: Boundary Treatment

ITEM	ITEM QTY	PART NUMBER	Length
1	2	ISO 10799-2-100x55x3-2800	2800.000 mm
2	6	MB-25 PinPentagon	1
3	6	MB Washer	1
4	12	MB Insert	1
5	1	Screenprint 199NWX975H	1



NOTE: All answers to be entered on ans. Do not leave any blank. All assignments would be required to be submitted. You do not need to submit the drawing and the design or sketch of the building. The drawing is not to be used or copied.

REVISIONS		
REVISION	DESCRIPTION	DATE
1	New Carport Layout.	28-08-2023

STATUS:	Planning
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1

CLIENT: **Grand National Systems Ltd**

ADDRESS: Send V.I. to: Director, Security Dept. (24470)

TITLE:	Estimated Year of completion



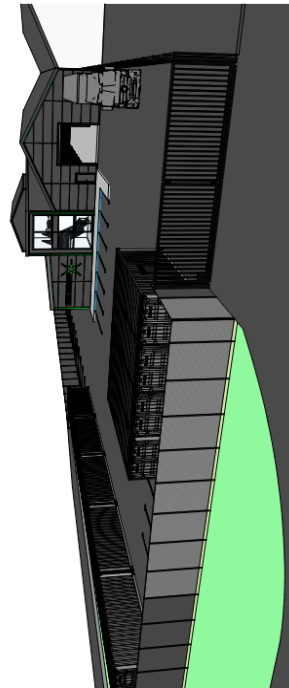
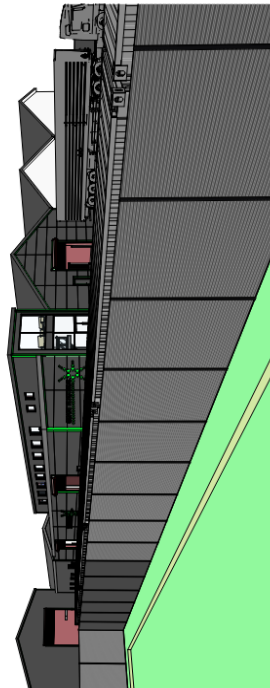
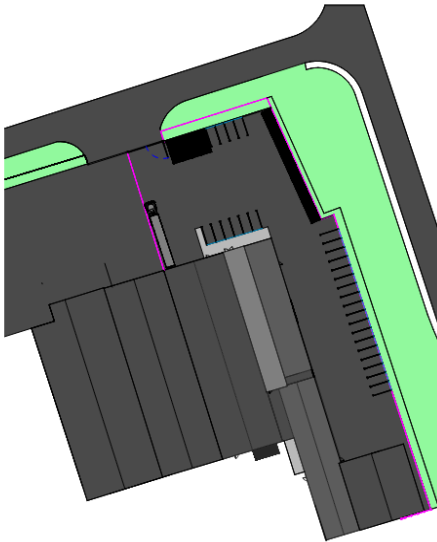
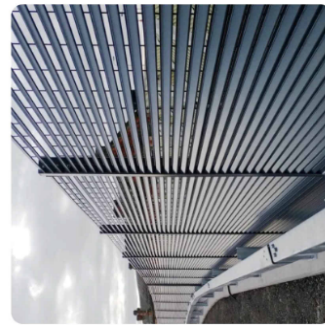
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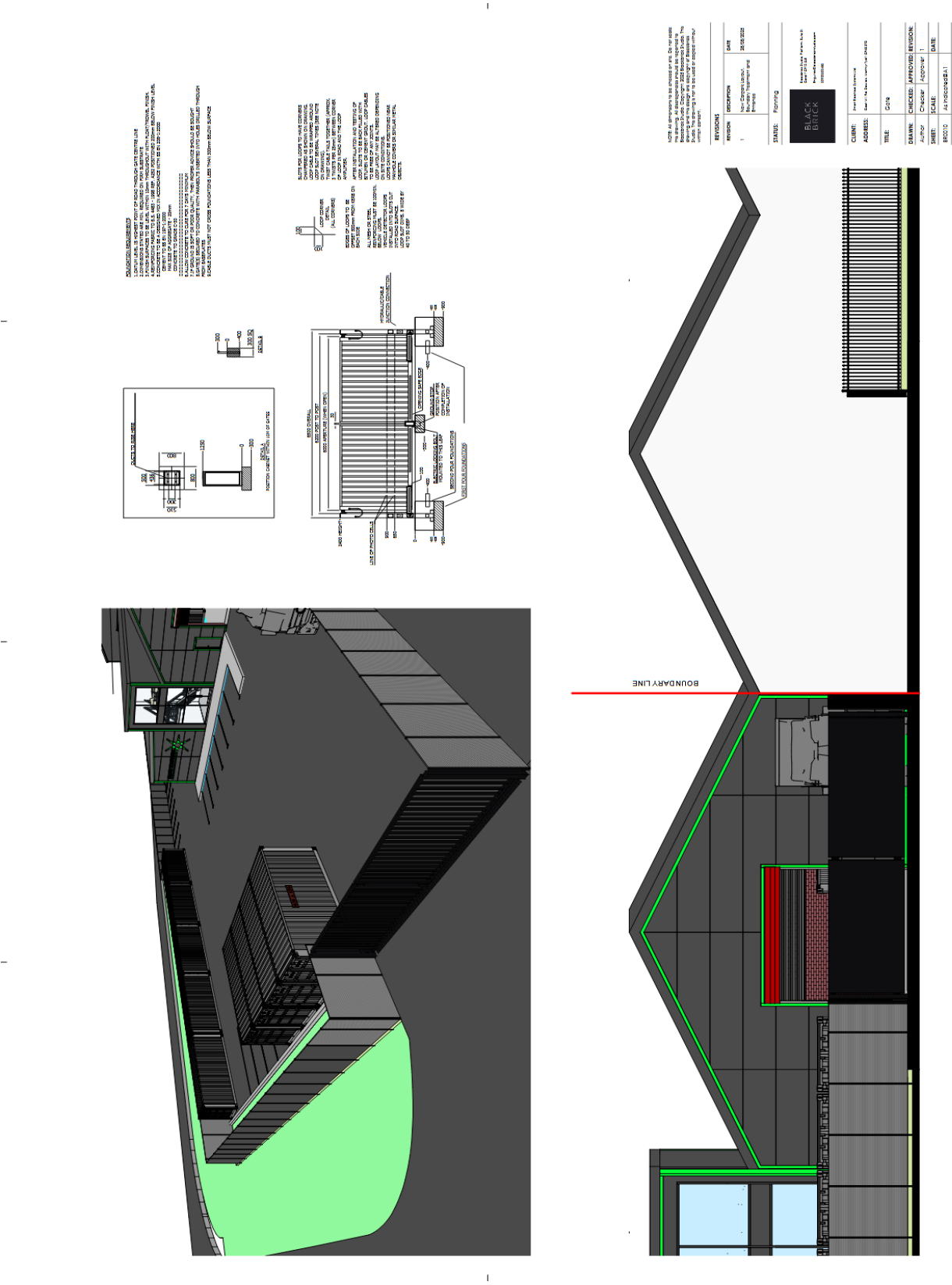
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Screenogrill Louvered Fence Panels System
<https://www.cld-systems.com/products/in-ground-permanent-systems/louvered-fence-panels>



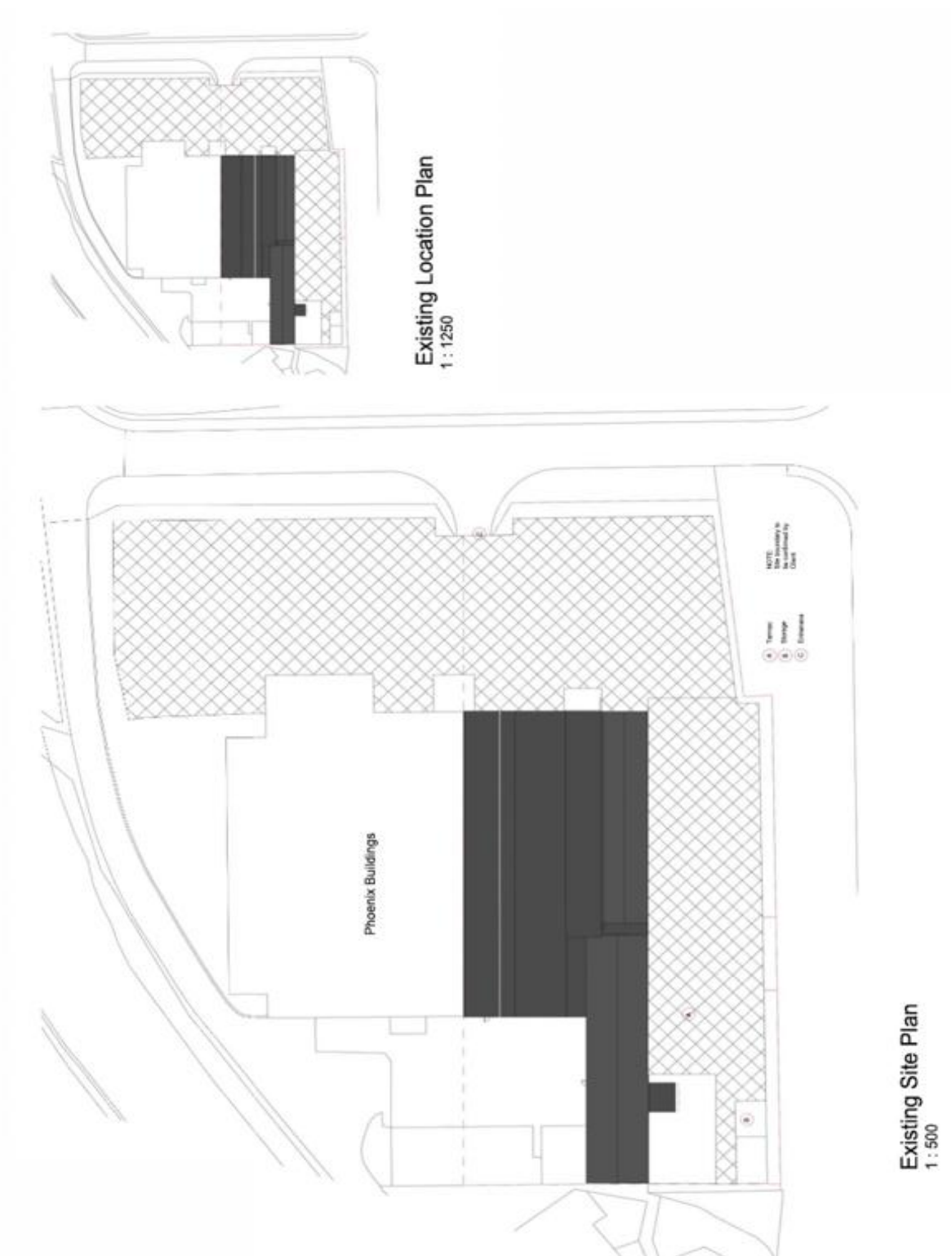
Drawing 8: Gate Plans



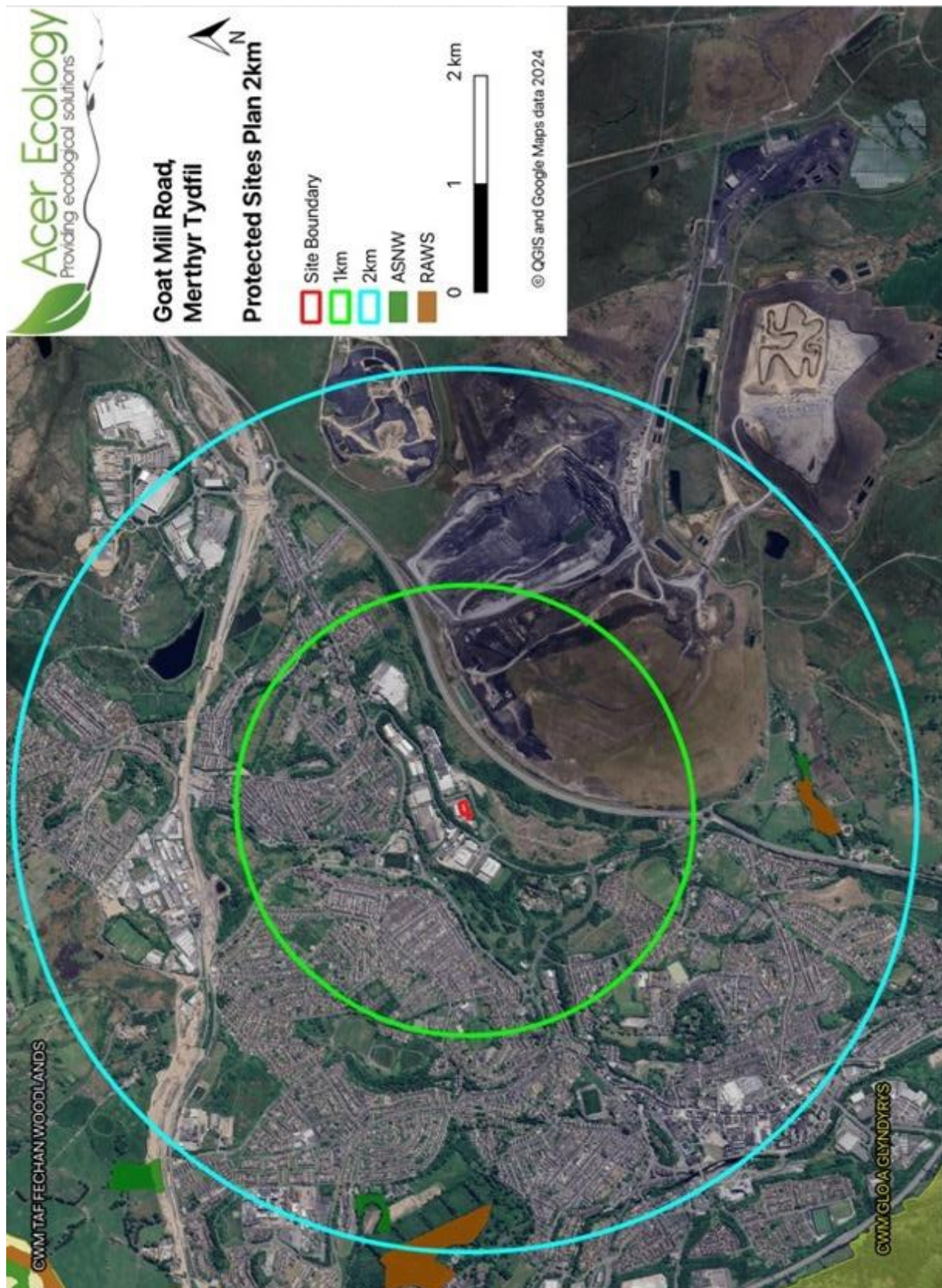
Plan 1: Location Plan



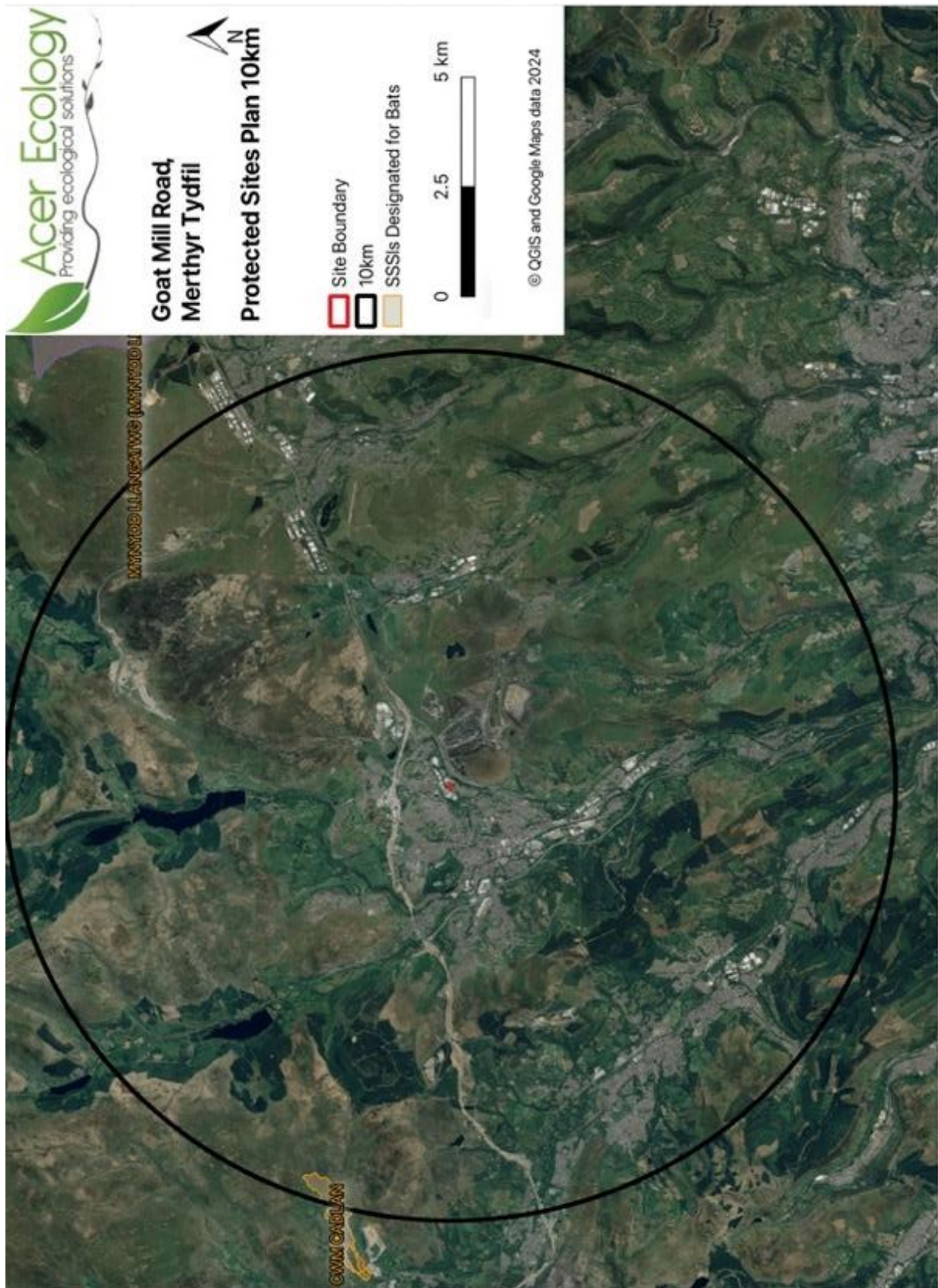
Plan 2: Location/Block Plan



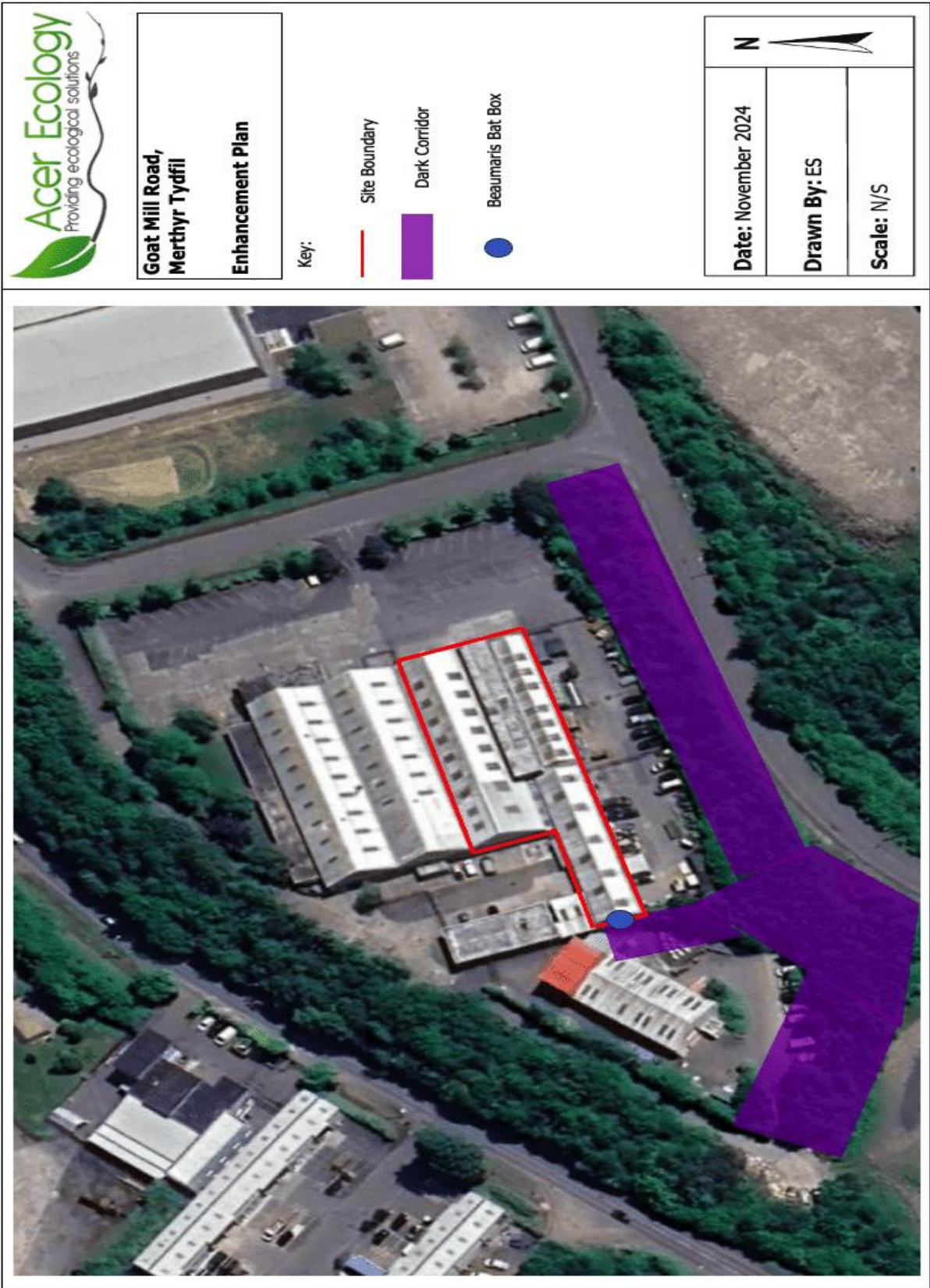
Plan 3: Protected Sites Within 2km



Plan 4: Protected Sites Within 10km



Plan 5: Enhancement Plan



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 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 European Protected Species 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 2016²³ 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 bechsteini*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe and greater horseshoe bats).

²³ <http://www.legislation.gov.uk/anaw/2016/3/contents>

Appendix 2: Guidelines for Assessing Potential Bat Roosting Suitability²⁴

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 ²⁵ (Commercial Building)	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 (Shed)	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 ²⁶ 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 ²⁷).
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.

²⁴ Taken from Table 4.1 of the Bat Survey Guidelines (2023) 4th edition.

²⁵ 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).

²⁶ For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

²⁷ 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 ²⁸
Negligible	None.
None.	None.
Low	One survey visit comprising of a dusk emergence survey ²⁹ between May and August for structures.
Moderate	Two separate dusk emergence survey visits ³⁰ . Surveys must occur between May and September ³¹ , with at least one survey between May and August ³² .
High	Three separate dusk emergence survey visits. Surveys must occur between May to September, with at least two surveys between May and August.

²⁸ Adapted from Tables 7.1 and 7.2 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023).

²⁹ 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.

³⁰ 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.

³¹ 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.

³² 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.

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Appendix 4: Guidelines for Assessing Bat Habitat Suitability³³

Suitability	Commuting and Foraging Habitat
Negligible	Negligible habitat features on-site likely to be used by commuting and foraging bats.
Low	<u>Commuting Habitat</u> 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. <u>Foraging Habitat</u> 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	<u>Commuting Habitat</u> 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. <u>Foraging Habitat</u> Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	<u>Commuting Habitat</u> 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. <u>Foraging Habitat</u> 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. <u>Proximity to Known Bat Roosts</u> The site is close to and connected to known roosts.

³³ Taken from Table 4.1 of the Bat Survey Guidelines (2023) 4th edition.

Appendix 5: Beaumaris WoodStone Bat Box

This bat box is made entirely from WoodStone, a robust material comprising concrete and wood fibres. This means that the box has excellent insulating properties maintaining a more consistent temperature throughout the year and provides excellent protection from predators. The Beaumaris box has a single narrow entrance, making it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The box's interior has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight.

Suitable for attaching to external walls and should be sited as high up on the façade as possible, at a height of at least 3m from the ground. Avoid siting under artificial lights. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups.



Specification

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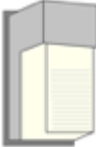
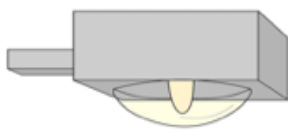
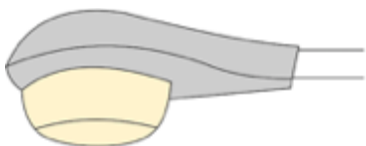
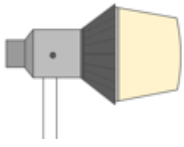
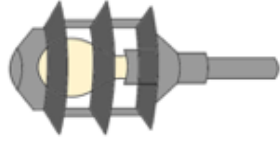
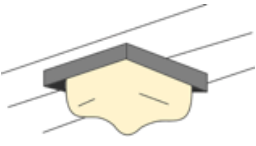
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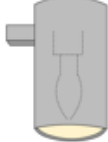
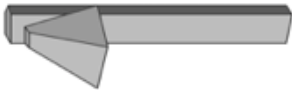
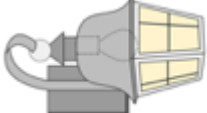
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- Depth: 7cm
- Weight: 8kg

Available online at: https://www.nhbs.com/4/practical-conservation-equipment?q=&hPP=60&idx=titles&p=0&fR%5Bhide%5D%5B0%5D=false&fR%5Bhide%5D%5B1%5D=false&fR%5Blive%5D%5B0%5D=true&fR%5Blive%5D%5B1%5D=true&fR%5Bshops.id%5D%5B0%5D=4&fR%5Bshops.id%5D%5B1%5D=4&hFR%5Bsubjects_equipment.lv1%5D%5B0%5D=Bat%20Boxes%20%3E%20Bat%20Boxes%20for%20External%20Walls&qview=211949

Appendix 6: Example of Unacceptable/ Discourages and Suitable Wall Fittings

Examples of Unacceptable / Discouraged Lighting Fixtures (Fixtures that produce glare and light trespass)	
Unshielded Floodlights or Poorly-shielded Floodlights	
Unshielded Wallpacks & Unshielded or Poorly-shielded Wall Mount Fixtures	
Drop-Lens & Sag-Lens Fixtures with exposed blub/refractor lens	
Unshielded Streetlight	
Unshielded Bollards	
Unshielded Barn Light	
Louvered 'Marine' style Fixtures	
Drop-Lens Canopy Fixtures	
Unshielded PAR Floodlights	

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Examples of Acceptable Lighting Fixtures (Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night)	
Full Cutoff Fixtures	
Fully Shielded Wallpack & Wall mount Fixtures	
Fully Shielded Fixtures	
Full Cutoff Streetlight	
Fully Shielded Barn Light	
Fully Shielded Walkway Bollards	
Fully Shielded Decorative Fixtures	
Fully Shielded 'Period' Style Fixtures	
Flush Mounted or Side Shielded Under Canopy Fixtures	
Shielded/Properly-aimed PAR Floodlights	

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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.