Just MAMMALS Limited
Ecological Consultancy



PRELIMINARY ECOLOGICAL APPRAISAL

&

PRELIMINARY ROOST ASSESSMENT

172-177 Brithweunydd Road

Tonypandy
Rhondda Cynon Taf
CF40 2UH

ON BEHALF OF:

Amity Planning Consultants

Site Address	172-177 Brithweunydd Road, Tonypandy, Rhondda Cynon Taf, CF40 2UH	
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Contents

1 Executive Summary 1
2 Introduction 1
3 Survey Team Experience 1
4 Survey Methodology 2
5 Site Description 2
6 Survey Constraints 2
7 Desktop Study 3
8 Survey Results 4
9 Discussion and Conclusions 5
10 Recommendations 7
11 Bibliography 10
Appendix I Site Maps and Plans 11
Appendix II Site Photographs 13
Appendix III Hibernacula Construction 15

Figures

Figure 1: Aerial view of the site 11
Figure 2: Phase 1 Habitat Map 12
Figure 3: General schematic of a reptile hibernaculum 15

Tables

Table 1: Sites Designated for Nature Conservation 3
Table 2: Summary of Survey Activity and Weather Conditions 4
Table 3: Summary of Phase 1 Habitat Notes 4
Table 4: Recommended Wildflowers to Support Wild Bees 8
Table 5: Recommended tree and shrub species for landscaping 9

Plates

Plate 1: Flat rooved, elevated section of the building 13
Plate 2: Pitched roof section of the building 13
Plate 3: Southern elevation 13
Plate 4: Broken windows leading into the first floor 13
Plate 5: Piles of debris at the site boundary 13
Plate 6: Scrub and debris in south-western corner 13
Plate 7: Japanese knotweed along southern boundary 13
Plate 8: Himalayan balsam on site 13
Plate 9: Jackdaw emerging from a broken soffit 14
Plate 10: Old nest identified near the open fire escape 14
Plate 11: Loft space within the pitched roof building 14
Plate 12: Potential hibernation site on the ground floor 14
Plate 13: Internal crevices 14
Plate 14: Collection of 50 lesser horseshoe droppings 14
Plate 15: Small collection of 10 lesser horseshoe droppings 14
Plate 16: Lesser horseshoe droppings on ground floor 14

1 Executive Summary

1.1 Proposals have been put forward for a new residential development at Brithweunydd Road, Tonypandy. In order to assess the habitats on site, as well as the presence or potential presence of protected species, a Preliminary Ecological Appraisal and Preliminary Roost Assessment were undertaken in March 2026.

1.2 To safeguard the Afon Rhondda/River Rhondda SINC from pollution during construction, a Construction Ecological Management Plan must be prepared, and the works carried out under its provisions. Such a plan must set out appropriate precautionary measures for ensuring pollution does not impact the nearby river.

1.3 As a consequence of the building's high suitability to support roosting bats, three dusk emergence/activity observations must be carried out on the buildings in the period between May and September. This is considered to be the minimum level of extra assessment to comply with national guidelines, support the needs of the planning authority and to apply for a European Protected Species licence. Sufficient observers will be needed in order to watch key aspects of the buildings, and survey must be undertaken under appropriate climatic conditions in compliance with national guidelines. Survey must therefore be carried out on dry evenings, with relatively low wind speeds and at temperatures in excess of 8°C.

1.4 Hibernation potential was identified on the ground floor of the building. As potential was assessed as moderate, further survey must be undertaken. Two survey visits, spread four weeks apart, during January and February must be completed on site to determine whether bats are utilising the site for hibernation. Additionally, automated/static surveys for winter activity within the building must be undertaken for a minimum of two weeks per survey, each month from November to March. Works on the building cannot commence until these surveys have been completed.

1.5 Due to the potential presence of nesting birds and small numbers of reptiles within the working area, any clearance of vegetation will need to be done under an Ecological Method Statement. This document will set out precautionary working practices that must be adopted by contractors clearing natural habitats on site, to mitigate against any potential impacts on protected species. This will include guidance on the storage of materials and the timing of works. If destructive works undertaken do uncover evidence of the presence of any protected species, all works must cease immediately and an appropriately qualified ecologist consulted for further guidance.

1.6 In order to comply with current Planning Policy Wales 12, it will be necessary to provide enhancements for biodiversity. Proposals for measures to promote wildlife and nature conservation are contained in this report.

2 Introduction

2.1 Proposals have been put forward for a new residential development at Brithweunydd Road, Tonypandy. Centred on National Grid Reference ST 01199 91938, the site is at an altitude of 150m Above Ordnance Datum. The existing structure on site is derelict and surrounded by a small area of hardstanding and scrub. This report makes recommendations concerning the ecological value of the site, as well as the need for further survey work. The habitats present were assessed, and the potential presence of protected species was considered.

3 Survey Team Experience

3.1 Lead surveyor during the site visit was Phoebe Williams. Phoebe holds an MSc in Wildlife and Conservation Management and has over nine years' experience undertaking protected species surveys for bats, great crested newts, badgers, reptiles and Preliminary Ecological Appraisals. Phoebe is an Associate Member of the Chartered Institute of Ecology and Environmental Management (ACIEEM). She holds survey licences for bats and great crested newts.

3.2 Assisting with the survey, and author of this report, is Daniel White. Following qualification with distinction from the University of South Wales with an MSc in Wildlife and Conservation Management in 2021, Daniel joined Just Mammals Limited and is currently employed as an ecologist. As an enthusiastic herpetologist, Daniel has experience surveying for all widespread amphibian and reptile species in Britain, in addition to protected great crested newts and sand lizards. Beyond herpetofauna, Daniel has several field seasons experience surveying for dormice, badgers and bats, including aerial inspection of bat roosts, in addition to undertaking various botanical surveys. Daniel

has recently been accepted as an Associate Member of ACIEEM and holds survey licences for hazel dormice, bats and great crested newts

4 Survey Methodology

4.1 A Preliminary Ecological Appraisal (PEA), and Preliminary Roost Assessment (PRA), were conducted on the 20th of March 2026. Details of the survey activities and weather conditions are provided in Table 2. Prior to the site visit, a desktop study was undertaken, which involved a standard search area of a 2km radius from the site (using a central grid reference), using the MAGIC website. Details of statutory sites designated for nature conservation were obtained and a record search was commissioned from the local records centre.

4.2 The PEA comprised a survey employing the Phase 1 habitat survey methodology. This is a standardised technique for classifying and mapping British habitats. All areas within the site were inspected and assessed for indicators of ecological value, including the presence and/or field signs of any protected or rare habitats and species. The site was walked over, recording all plant species and features into a field notebook. Habitats and notes were drawn onto a map of the survey site and photographs were taken. A coloured Phase 1 habitat map was produced (see Appendix I).

4.3 Assessment for the presence or potential presence of protected species, notably bats, nesting birds, hazel dormouse (*Muscardinus avellanarius*), badger (*Meles meles*), reptiles, and great crested newts (*Triturus cristatus*), was undertaken by considering the habitats and features present on site. Features include dense vegetation for nesting, crevices in buildings and trees for roosting bats and standing water for breeding great crested newts, amongst others.

4.4 The PRA of the building was undertaken with the aim of detecting any signs of bats, or nesting bird presence. With respect to bats, all outer surfaces of the building were examined from the ground, seeking signs of use, including bat faeces (droppings) on walls, ledges, doors, and sills. Urine staining on paintwork and window glass, or staining on the surfaces of exposed timbers, caused by oil from bat fur, were also searched for. A high-powered lamp and binoculars were used to examine Potential Roost Features (PRFs), and any gaps or crevices in the structure were inspected as closely as possible. The context of the building within the surrounding landscape was also assessed at this time. The building was considered for its potential to be used by bats for hibernation purposes.

4.5 Internal survey sought the presence of bats or the remains of dead bats (including dead juvenile bats), which might indicate the presence of a maternity roost, and other roosting signs (e.g. droppings), on floors, ledges, walls, stored items, and other surfaces. The interior of building was inspected for live bats or evidence for their presence, including discarded fragments of insects such as moth wings.

4.6 The presence of nesting birds was also considered at the time of assessment. Surveyors recorded any signs of historic and current bird activity including nest-building, feeding at nest sites, and any indirect evidence such as nest remains, bird droppings, and feathers.

5 Site Description

5.1 The building at 172-177 Brithweunydd Road comprises two structures, a three storey pitched roof structure to the west, and single storey flat roofed structure to the east. The eastern structure is elevated on concrete pillars, and surrounded by a small area of hardstanding and scrub. The pitched roof structure is stone built, with what appears to be clay roof tiles and a rough pebble dash render on the western elevation. The eastern flat roofed structure is brick built, with concrete block flooring visible from beneath and a corrugated metal roof. Timber fascias and window frames are present, in addition to metal guttering. Loft voids are only present within the pitched roof structure, with timber roof supports and a bitumen liner present throughout. Open windows and doors are present on each elevation, resulting in large areas of light spill into the interior, however darker areas are present within the structure, including the western end of the loft, and the ground floor.

5.2 To the north, connectivity to the building is only constrained by the presence of the B4278 road, separating the site from the grassland and scattered trees present within Trealaw Cemetery and the stands of bracken and heather on the surrounding mountainside. To the south, a steep bank facilitates high levels of connectivity to the site, connecting the building to the railway line and Afon Rhondda/River Rhondda less than 80m away.

6 Survey Constraints

6.1 The loft space within the roof section of the building was inaccessible, due to its height. However, gaps in the ceiling permitted surveyors a view into the structure to search for signs of bats, with the floor beneath the ceiling also searched for droppings. While the inaccessibility of the loft may limit the conclusions that can be drawn from this assessment, further survey in the form of dusk observations will provide a sufficient and thorough survey effort.

7 Desktop Study

7.1 A record search (unique reference 0256-802) was commissioned from the South East Wales Biodiversity Records Centre (SEWBReC), to ascertain whether protected or priority species had been recorded at or close to the site. The search revealed no records of priority species, species of conservation concern, locally important species, nor invasive non-native species, at the site itself, with the closest record to the site being invasive non-native Japanese knotweed (*Fallopia japonica*) recorded less than 100m south-west.

7.2 The data set revealed a total of 367 species records within 1km of the site, including 159 priority species, 125 species of conservation concern, 52 locally important species and 31 invasive non-native species. These are briefly summarised below:

- Bats – accounted for 16 species records, including noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and lesser horseshoe (*Rhinolophus hipposideros*) amongst other unidentified bat species. The closest record of a bat roost to the site is a soprano pipistrelle maternity roost recorded almost 400m south-west of the site with 58 animals observed emerging from Pen Dinas flats;
- Terrestrial mammals (excluding bats) – accounted for 5 records, including hedgehog (*Erinaceus europaeus*) and invasive non-native American mink (*Neovison vison*). The closest sighting of a terrestrial mammal to the site is of a hedgehog, recorded approximately 600m to the east foraging in the grounds of Porth Community school;
- Birds – accounted for 231 species records, including Schedule 1 protected brambling (*Fringilla montifringilla*), fieldfare (*Turdus pilaris*), goshawk (*Astur gentilis*), hen harrier (*Circus cyaneus*), hobby (*Falco subbuteo*), kingfisher (*Alcedo atthis*), red kite (*Milvus milvus*), barn owl (*Tyto alba*), peregrine (*Falco peregrinus*), red wing (*Turdus iliacus*), and Dartford warbler (*Curruca undata*). The closest sighting of a Schedule 1 protected bird species is of a brambling over 500m south on Mynydd Dinas;
- Reptiles – accounted for 1 record of a common lizard (*Zootoca vivipara*) almost 700m north-west;
- Amphibians – accounted for 1 record of a European protected great crested newt (*Triturus cristatus*) over 1km north-west;
- Invertebrates – accounted for 14 species records, including priority cinnabar moth (*Tyria jacobaeae*), small heath (*Coenonympha pamphilus*), shaded broad-bar (*Scotopteryx chenopodiata*), marsh fritillary (*Euphydryas aurinia*), dot moth (*Melanchra persicariae*), small phoenix (*Ecliptopera silaceata*) and small pearl-bordered fritillary (*Boloria selene*). The closest record of a priority invertebrate is of a cinnabar moth identified approximately 500m west;
- Vascular plants – accounted for 66 species records including priority native bluebell (*Hyacinthoides non-scripta*), in addition to, Himalayan balsam (*Impatiens glandulifera*), montbretia (*Crocosmia × crocosmiiflora*) and rhododendron (*Rhododendron ponticum*);
- Bryophytes – accounted for 2 records of locally important flabby thread-moss (*Bryum moravicum*), the closest record being under 1km south;
- Fungi – accounted for 29 records, including priority violet coral (*Clavaria zollingeri s. lat*) amongst several other locally important waxcap mushroom (*Hygrocybes sp.*) less than 1km south.

7.3 Sites of nature conservation interest within a 2km radius of the site were identified using the web-based MAGIC database (www.MAGIC.gov.uk). These included sites with statutory designations of international importance (Special Areas of Conservation: SACs, Special Protected Areas: SPAs and Ramsar sites) and sites of national importance (Sites of Special Scientific Interest: SSSIs and National Nature Reserves: NNRs). There is only one protected site within the 2km radius, which is summarised in Table 1 below.

Table 1: Sites Designated for Nature Conservation

Site and Designation	Distance and Direction to Site	Primary Reasons for Designation

Rhos Tonyrefail SSSI	1.7km south	Of special interest for its marshy grassland, acid flush, species-rich neutral grassland, acid grassland, wet heath and blanket mire habitat, in addition to its population of marsh fritillary butterfly.

7.4 In addition to the statutory designated site mentioned above, the site is also within 1km of seven areas of ancient semi natural woodland, one restored ancient woodland site and one NRW priority area for lowland wetland habitat. Several Sites of Importance for Nature Conservation are also present within 2km, including Mynydd Brith-weunydd/ Llwynypia hillside, Twyn Tyllaudefaid Valley Mire, Mynydd Troed-y-rhiw Slopes, Penrhiw Flushes, Birch Grove Slopes, Mynydd Dinas/Mynydd y Cymmer, Bronwydd Park, Trebanog Slopes and the River Rhondda.

8 Survey Results

8.1 Survey was undertaken on the 20th of March 2026. Details of the conditions under which survey was conducted are given in Table 2. Wind speeds given employ the Beaufort scale.

Table 2: Summary of Survey Activity and Weather Conditions

Survey Type and Location	Dates	Timing	Weather Conditions
Day time visual inspection, botanical survey and habitat assessment and Preliminary Roost Assessment of the building	20/03/2026	09:30 – 12:00 hours Greenwich Mean Time (GMT)	Air temperature: 11°C Cloud cover: 1/8 oktas Wind speed: F0, calm Conditions: Dry
Surveyors	Phoebe Williams, Daniel White		

Preliminary Roost Assessment

8.2 Survey commenced with an internal inspection of the building. Three collections of bat droppings were identified, which had the appearance of lesser horseshoe bat droppings. All droppings were identified within the western section of the building; a collection in excess of 50 droppings near the fire escape entrance on the second storey, a second smaller collection of approximately 10 droppings in a dark alcove deeper into the interior of the second storey, and a collection of greater than 20 droppings near the staircase on the ground floor of the northside of the building. No live bats were noted.

8.3 In addition to the evidence mentioned above, potential for bats to use the building is facilitated by open doors on the ground floor, the open second storey fire escape, and broken windows leading into the loft space and first storey. The interior of the structure was open, meaning bats are able to occupy all areas within. Internal gaps within the buildings were numerous, with gaps noted between exposed brick and stone work, behind chipboard, plasterboard, peeling paint and plastered areas permitting animals access to the space behind existing walls. Externally, crevices were present between cinder blocks on the underside of the elevated section of the flat rooved building, in addition to gaps between stonework and soffits on the northern and western elevations of the pitched roof structure, and within an old vent on the southern elevation.

8.4 Evidence of nesting bird activity was also sought, and numerous jackdaw (*Coloeus monedula*) were recorded emerging from the damaged soffits on the northern and western elevations of the pitched roof structure during the survey. Additionally, a collection of sticks and vegetation with the appearance of an old nest was recorded near the fire escape on the second storey of the building during the survey.

Preliminary Ecological Appraisal

8.5 Three different habitats were recorded on site during the assessment, details of which are given in Table 3 below.

Table 3: Summary of Phase 1 Habitat Notes

Habitat	Phase 1 Classification	Description of Area and Typical Species
Type 1	A2.1 Scrub – dense/continuous	A small area of scrub has developed over the hardstanding in the south-western corner of the site. Present species include: • Butterfly bush (*Buddleja davidii*), • Grey willow (*Salix cinerea*), • Bramble (*Rubus fruticosus*), • Ivy (*Hedera helix*), • Willowherb (*Epilobium sp.*), • Creeping buttercup (*Ranunculus repens*),

		• Dandelion (*Taraxacum sp.*), • Broad-leaf dock (*Rumex obtusifolius*), • Herb-robert (*Geranium robertianium*), • Nettle (*Urtica dioica*), • Sow-thistle (*Sonchus oleraceus*), • Colts-foot (*Tussilago farfara*), • Shinning cranesbill (*Geranium lucidum*) • Parsnip (*Pastinaca sativa*), • Soft rush (*Juncus effusus*), • Perennial ryegrass (*Lolium perenne*), • Yorkshire fog (*Holcus lanatus*). **Note:** invasive non-native Japanese knotweed and Himalayan balsam were recorded in this habitat.
Type 2	J5 – Other habitat	This habitat is present along the south-eastern section of the site, with scattered vegetation on thin soils and piles of discarded debris. Present species include: • Butterfly bush, • Broad-leaf dock, • Garlic mustard (*Alliaria petiolata*), • Bush vetch (*Vicia sepium*), • Guernsey fleabane (*Erigeron sumatrensis*), • Herb-robert, • Hairy bittercress (*Cardamine hirsuta*), • White clover (*Trifolium repens*), • Dandelion, • Yorkshire fog. **Note:** invasive non-native Japanese knotweed and Himalayan balsam were recorded in this habitat.
Type 3	J3.6 – Buildings	The pitched and flat rooved structures are situated along the northern boundary of the site.

8.6 A Phase 1 map displaying the locations and extents of the habitats mentioned above is included in Appendix I, with photographs of the site provided in Appendix II. Invasive non-native Japanese knotweed and Himalayan balsam, listed within Schedule 9 of the Wildlife and Countryside Act 1981, were recorded within scrub and areas of hardstanding on site.

8.7 Ecological assessment included identification of the potential for protected species to be present. While no active nesting was recorded within scrub during the assessment, several bird species were recorded on site, including magpie (*Pica pica*), jackdaw, great tit (*Parus major*) and chiffchaff (*Phylloscopus collybita*). Scrub on site provides suitable nesting habitat for many of the species observed.

8.8 One male slow worm (*Anguis fragilis*) was recorded under debris during the survey. Piles of rubble and scrub on site provide suitable habitat for foraging, and provide protection from predators.

8.9 No standing water is present on site that could be used by breeding amphibians, and no water body appears to be present within 500m of the site.

8.10 No evidence was found to confirm the presence of protected terrestrial mammals, with no field signs including setts, nests, holts, worn tracks, spraints, latrines/dung pits, hair or nut cases recorded, which may have indicated that species such as badgers, otters, or dormice were utilising the site. Scrub provides potential foraging habitat for small mammals, though the absence of standing water means there is no suitable foraging habitat for protected mammals such as otter (*Lutra lutra*) and water vole (*Arvicola amphibius*).

8.11 No priority invertebrate species were recorded during the assessment, and a limited variety of flowering plants were present on site that could be utilised by pollinating invertebrates.

9 Discussion and Conclusions

9.1 Proposals are in place for a new residential development at Brithweunydd Road, Tonypandy. Desktop study and field survey were both used to evaluate the ecological value of the site, which

was considered to be moderate. While terrestrial habitat was assessed as being of low ecological value, the presence of roosting bats increases the value of the site as a whole.

9.2 One protected site, Rhos Tonyrefail SSSI, is located approximately 1.6km from the building. Given the distance between the SSSI and the development site no impacts on the protected site are expected. However, the development is within 85m of the Afon Rhondda/River Rhondda SINC, and consequently to prevent pollution entering the river and impacting protected fish and mammal species, such as otter, precautions must be taken during and following construction. Recommendations regarding the protection of this water course is made below.

9.3 Evidence confirming the presence of roosting bats was found within the building on site, with droppings indicative of the presence of lesser horseshoe bats. The building also has numerous PRFs suitable for crevice roosting bats, as well as open doors and windows that permit bats access into the structure. Disturbance through anti-social behaviour is a known issue on site, which in addition to light spill and temperature fluctuations that will result from the numerous open windows and doors, reduces the sites suitability for bats. However, high levels of connectivity between the site and the surrounding landscape, facilitated by the neighbouring trainline and close proximity of the Afon Rhondda/ River Rhondda, coupled with the presence of numerous PRF's, means the building is assessed as having a high suitability for roosting bats. Bats are protected under the provisions of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), and their roosting places are also protected under the provisions of the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019. All bats and their places of rest are fully protected under British legislation, and as such, where there is evidence for the presence of bats, or where there is potential for them to be present, detailed assessment to identify the species present and to characterise the roosts is appropriate, and necessary, to understand likely impacts from the proposals. Recommendations regarding further survey for bats are provided below.

9.4 The presence of bats at other times of year, apart from the summer, was considered, and the building is assessed to have moderate potential to be used by hibernating bats. What appeared to be lesser horseshoe droppings were identified within the ground floor of the building. Due to the slope of the valley side, the ground floor of the building extends below ground level on the northern elevation, and was distinctly darker and cooler than the rest of the building. However, the site is subject to disturbance and anti-social behaviour, and therefore the building is considered to have a moderate potential to support hibernating bats. Recommendations regarding hibernating bats are made below.

9.5 Evidence of nesting jackdaws was found within the buildings on site, with additional suitable nesting habitat present within onsite scrub, which birds will be expected to use during the bird nesting season between March and August. All nesting birds, their chicks, eggs, and nests, whilst in use or being built, are protected under the Wildlife and Countryside Act 1981 (as amended). Suitable provision for nesting birds must be considered within the proposals. Recommendations for such provision, as well as best practice regarding birds, are made below.

9.6 Habitat on site is suitable, but marginal for reptiles. While scrub habitat is present to provide foraging and shelter, it has grown over hardstanding. Reptiles are currently present in this habitat, with a male slow worm observed briefly basking under debris on the site boundary, but given the limited suitable habitat for reptiles onsite, it is likely the population is centred on the adjoining bankside. All widespread reptile species are included within Section 9 of the Wildlife and Countryside Act 1981, which protects them from intentional or reckless killing, injury or sale. All widespread reptiles are also listed as species of principal importance for maintaining and enhancing biodiversity in Wales under section 7 of the Environment (Wales) Act 2016, and are listed as target species in the United Kingdom Biodiversity Action Plan (UKBAP), meaning local councils must take steps to maintain and enhance populations of these species when carrying out their normal functions. As proposals will only involve the loss of small areas of marginal habitat for reptiles, detailed reptile survey is considered unnecessary at this time. Instead, precautions will need to be taken to avoid the killing or injury of reptiles during the clearance of vegetation and debris. Recommendations regarding necessary precautions are provided below.

9.7 While great crested newts were recorded within 2km during the desktop study, no ponds appear to be present within 500m of the site that could support a breeding population. Consequently, great crested newts are not considered likely to be present on site and no further survey is recommended for this species.

9.8 While nocturnal mammals have been recorded within 1km of the site, the limited foraging opportunities available for terrestrial wildlife suggests that mammals are unlikely to make regular use

of the site. However, wide ranging species such as hedgehogs may occasionally use the site, and as such proposals must consider a lighting scheme sympathetic to nocturnal wildlife and facilitate the movement of these species through the site. Recommendations on lighting and facilitating movement are made below.

9.9 No priority invertebrate species where recorded during the assessment, and no priority invertebrates have previously been recorded within the site boundary. This fact, coupled with the paucity of flowering plant species recorded within the scrub on site, means no further survey for invertebrates is recommended. However, recommendations are made in this report to enhance the site for pollinating invertebrates following development.

10 Recommendations

10.1 Prior to the renovation of Brithweunydd Road, Tonypandy, further surveys must be undertaken for bats. Precautionary working practices must also be adopted to prevent works impacting upon protected reptiles and nesting birds. The following recommendations are divided into sections concerning invasive species treatment, further survey work, mitigation and enhancements.

Invasive species control

10.2 Treatment must be undertaken to eradicate the invasive species present on site, in order to prevent their wider dispersal. Several applications of an appropriate herbicide treatment following the recommended protocols may be necessary to eradicate Japanese knotweed. Himalayan balsam can be removed by pulling plants out of the ground, and carefully composting them before they have an opportunity to set seed. Himalayan balsam can also be eradicated by strimming, provided this is undertaken regularly to prevent the plants from setting seed. Care must be taken to avoid inadvertently spreading either of these invasive species during construction work, and waste material containing Japanese knotweed must be properly disposed of as controlled waste. Further guidance on the eradication of these invasive species can be accessed through the Welsh government public information leaflets referenced (Jones, 2020). An appropriately licensed and qualified contractor must be engaged for this process.

Further survey

10.3 As a consequence of the building's high suitability to support roosting bats, three dusk emergence/activity observations must be carried out on the building in the period between May and September. This is considered to be the minimum level of extra assessment to comply with national guidelines, support the needs of the planning authority and to apply for a European Protected Species (EPS) licence, if one is required. Sufficient observers will be needed in order to watch key aspects of the building, and survey must be undertaken under appropriate climatic conditions in compliance with national guidelines. Survey must therefore be carried out on dry evenings, with relatively low wind speeds and at temperatures in excess of 8°C.

10.4 Hibernation potential was identified on the ground floor of the building. As potential was assessed as moderate, further survey must be undertaken. Two survey visits, spread four weeks apart, during January and February must be completed on site to determine whether bats are utilising the buildings for hibernation. Additionally, automated/static surveys for winter activity within the building must be undertaken for a minimum of two weeks per survey, each month from November to March. Works on the buildings cannot commence until these surveys have been completed.

Mitigation

10.5 To safeguard Afon Rhondda/River Rhondda SINC from pollution during construction, a Construction Ecological Management Plan (CEMP) must be prepared, and the works carried out under its provisions. Such a plan must set out appropriate precautionary measures for ensuring pollution does not impact the nearby river.

10.6 Due to the likely presence of nesting birds and small numbers of reptiles within the working area, any clearance of vegetation will need to be done under an Ecological Method Statement (EMS). This document will set out precautionary working practices that must be adopted by contractors clearing natural habitats on site, to mitigate against any potential impacts on protected species. This will include guidance on the storage of materials and the timing of works. If destructive works undertaken do uncover evidence of the presence of any protected species, all works must cease immediately and an appropriately qualified ecologist consulted for further guidance.

10.7 Hedgehogs and other wide ranging mammals may utilise the site on occasion for foraging or commuting, and therefore any trenches dug forming part of any groundworks during construction must be covered overnight or left with a 45º sloping side to prevent any animal from becoming trapped. Similarly, any unconnected pipes must be capped overnight to prevent any animal from becoming stuck. Any new fencing installed around the site must also include gaps to facilitate the movement of mammals through the site.

10.8 The potential presence of nocturnal animals, such as bats or hedgehogs, requires considerate design of a sensitive lighting scheme. Any new lighting columns installed must be affixed with cowls, hoods, or shrouds, to minimise upward light spill. Luminosity will be limited to the absolute minimum required by Health and Safety standards and will be timed to be extinguished for as long a period as possible at night. All lights must face downwards, and must not point directly at natural features. The ILP (2023) guidance notes provide details on lighting requirements for nocturnal animals. This guidance on lighting must be followed during construction and applied to new lighting installed as part of the development.

10.9 Further guidance on mitigation relating to the presence of roosting bats and nesting birds within the building will be submitted within a full bat report following the dusk observations, and hibernation visits mentioned above.

Enhancements

10.10 Any enhancements make a positive contribution to local biodiversity and promote Net Benefits for Biodiversity targets as laid out in PPW 12, and Section 6 of the Environment (Wales) Act 2016. Enhancements must include the installation of swift bricks and bee bricks; 15 swift bricks on the eaves of the northern elevation of the building and five bee bricks on the eastern elevation. Swift bricks are nest boxes designed to blend seamlessly into a brick wall, with only a small opening visible and are intended to be used by species like swifts, which are currently included on the UK red list, having suffered significant population declines in recent year. Swift bricks must be situated at the eaves of the property, avoiding locations receiving the longest periods of direct sunlight and not situated above windows. Bee bricks contain cavities of various sizes and can be used in place of standard bricks in the construction of walls, to create egg laying habitat for solitary bees. Bee bricks must be located in sunny locations close to the ground, but at least 1m in elevation. The NHBS website includes guidance on the installation of both of these features.

10.11 Considering the loss of flowering plants that will occur during vegetation clearance, enhancements must include sowing wildflowers that benefit British pollinators. This can be done as part of the sites landscaping process, and include wildflower areas in locations currently earmarked as amenity space. Recent research into species that are used by wild bees (Nichols, Goulson and Holland, 2019) demonstrated that a mix of 18 wildflower species was sufficient to support 100% of bee species observed. Table 4 below includes a list of the 18 wildflowers that were found to support the highest diversity of bee species surveyed, and will also support a plethora of other pollinating invertebrates such as butterflies and moths. In addition to invertebrates, wildflower areas that support invertebrates will also support their predators, enhancing the site for insectivores such as birds and slow worms. Wildflower seeds and plug plants must where possible be of local provenance, to limit the import of disease and preserve regional genetic variation. Suitable seeds and plugs must be obtained from regional suppliers like Celtic Wildflowers, Welsh Organic Wildflowers or similar organisations.

Table 4: Recommended Wildflowers to Support Wild Bees

Common Name	Scientific Name
Kidney vetch	*Anthyllis vulneraria*
Harebell	*Campanula rotundifolia*
Greater knapweed	*Centaurea scabiosa*
Rough chervil	*Chaerophyllum temulum*
Pignut	*Conopodium majus*
Bindweed	*Convolvulus arvensis*
Smooth hawksbeard	*Crepis capillaris*
Wild carrot	*Daucus carota*
Meadow cranesbill	*Geranium pratense*
Hedgerow cranesbill	*Geranium pyrenaicum*
Musk mallow	*Malva moschata*
Wild marjoram	*Origanum vulgare*
Poppy	*Papaver rhoeas*
Primrose	*Primula vulgaris*
Charlock	*Sinapsis arvensis*
Perennial sow-thistle	*Sonchus arvensis*

Dandelion	*Taraxacum agg.*
Scentless mayweed	*Tripleurospermum inodorum*

10.12 Landscaping must incorporate the planting of native tree and shrub species. Trees and shrubs planted as part of landscaping measures required as part of the development must be native to the region, therefore supporting local biodiversity and acting as a seed source for the colonisation of the surrounding landscape. Taking into account the conditions present on site, Table 5 below includes a list of suitable native tree and hedgerow species, that must be planted as part of the landscaping process. At least 10 trees, incorporating at least 6 different species must be used. It is essential that such plants are sourced locally, in order to reduce the likelihood of importing diseases. Guidance on the selection of trees and establishment for landscape planting can also be taken from the Woodland Trust: Tree Species Handbook.

Table 5: Recommended tree and shrub species for landscaping

Common Name	Scientific Name
Field maple	*Acer campestre*
Alder	*Alnus glutinosa*
Silver birch	*Betula pendula*
Downy birch	*Betula pubescens*
Hazel	*Corylus avellana*
Hawthorn, common	*Crataegus monogyna*
Alder buckthorn	*Frangula alnus*
Holly	*Ilex aquifolium*
Juniper	*Juniperus communis*
Crab apple	*Malus sylvestris*
Black poplar	*Populus nigra*
Aspen	*Populus tremula*
Wild cherry	*Prunus avium*
Bird cherry	*Prunus padus*
Blackthorn	*Prunus spinosa*
Wild pear	*Pyrus communis*
Sessile oak	*Quercus petraea*
Pedunculate oak	*Quercus robur*
Eared willow	*Salix aurita*
Goat willow	*Salix caprea*
Grey willow	*Salix cinerea*
Purple willow	*Salix purpurea*
Elder	*Sambucus nigra*
Rowan	*Sorbus aucuparia*
Wild service tree	*Sorbus torminalis*
Yew	*Taxus baccata*
Small-leaved lime	*Tilia cordata*
Guelder rose	*Viburnum opulus*

10.13 Finally, as slow worms have been confirmed as present on site, enhancements must include the installation of a reptile hibernacula within the amenity area. Hibernacula are structures constructed to provide hibernation sites for reptiles, amphibians and invertebrates, and comprise collections of stone and logs piled together and covered with a loose layer of turf or soil to provide a sheltered environment, isolated from external temperatures. Hibernacula must be positioned in a sunny location, at the interface between grassland and scrub. A diagram of a hibernacula, with guidance on size, is included in Appendix III.

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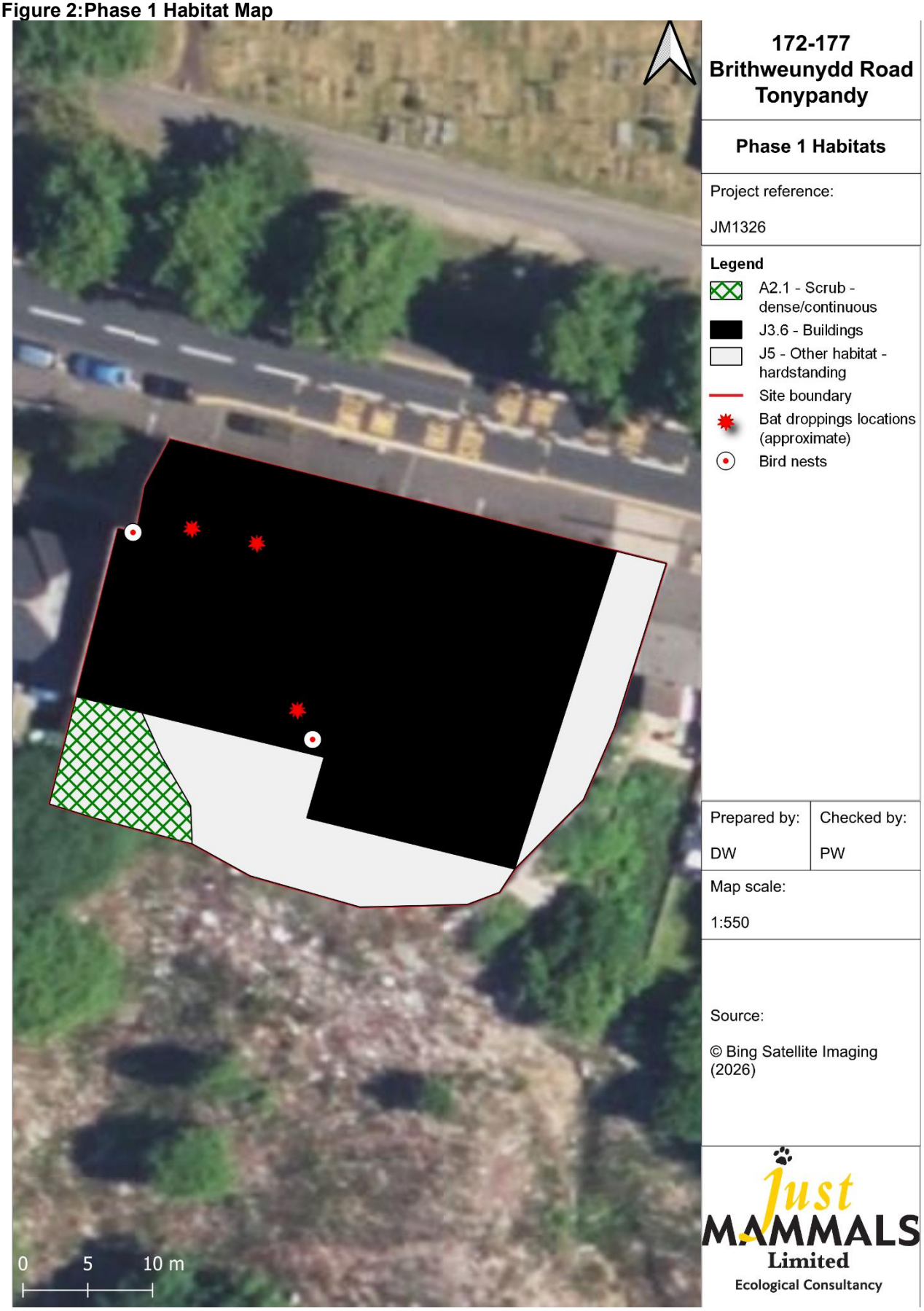
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Appendix I Site Maps and Plans

Figure 1:Aerial view of the site



Figure 2:Phase 1 Habitat Map



Appendix II Site Photographs

Plate 1: Flat rooved, elevated section of the building



Plate 2: Pitched roof section of the building



Plate 3: Southern elevation



Plate 4: Broken windows leading into the first floor



Plate 5: Piles of debris at the site boundary

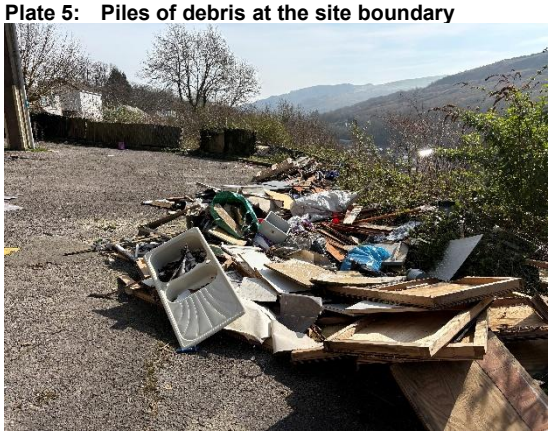


Plate 6: Scrub and debris in south-western corner

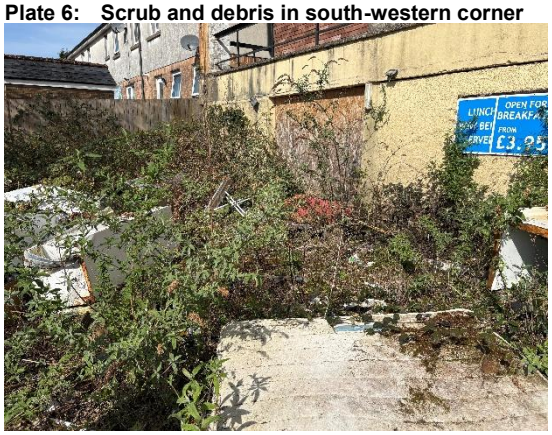


Plate 7: Japanese knotweed along southern boundary



Plate 8: Himalayan balsam on site



Plate 9: Jackdaw emerging from a broken soffit

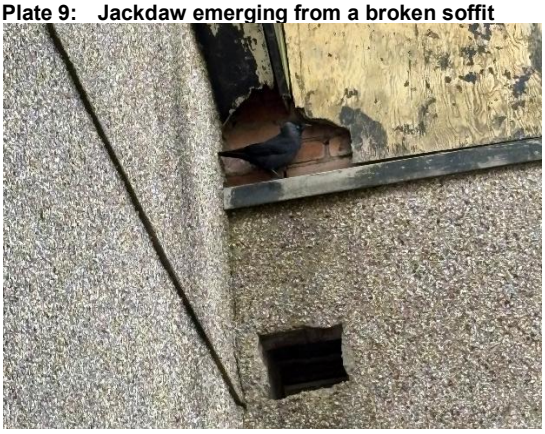


Plate 10: Old nest identified near the open fire escape



Plate 11: Loft space within the pitched roof building



Plate 12: Potential hibernation site on the ground floor



Plate 13: Internal crevices



Plate 14: Collection of 50 lesser horseshoe droppings



Plate 15: Small collection of 10 lesser horseshoe droppings

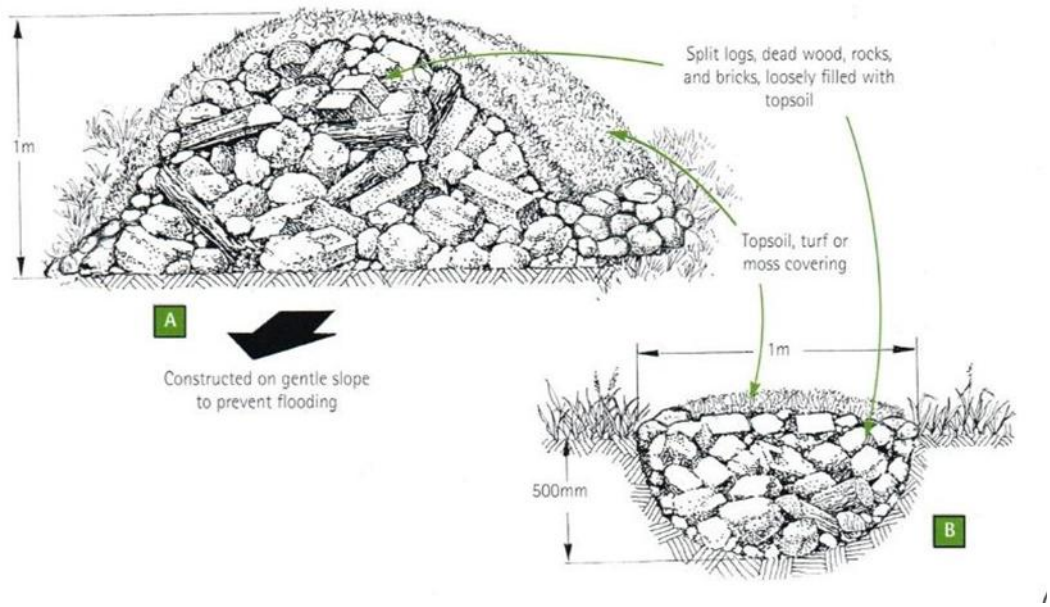


Plate 16: Lesser horseshoe droppings on ground floor



Appendix III Hibernacula Construction

Figure 3: General schematic of a reptile hibernaculum



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