

1A-B COLLIERS ROW – PRELIMINARY ECOLOGICAL APPRAISAL



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Executive Summary

Certhia Ecology were commissioned to undertake a Preliminary Ecological Appraisal (PEA) of the habitats within a plot of land located within Plot 1A-B Colliers Row, Merthyr Tydfil CF48 1DP. The plot of land is centred at National Grid Reference SO 03901 06322 and is hereafter referred to as the 'Site' (see Figure 1).

It is understood the intention is to develop the Site and construct two residential dwellings (currently being considered for planning approval P/26/0049). All planned works on Site are hereafter referred to as the 'Proposed Development'.

The desk study returned several records of protected and / or notable species within 1km of the Site including; Hedgehog *Erinaceus europaeus*, bats, birds, amphibians, reptiles and invertebrates. In total one statutory and seven non-statutory conservation site(s) were identified within 1km of the Site.

The PEA Site visit identified three phase 1 habitat types, including habitats that are suitable for Hedgehog, reptiles, amphibians, invertebrates, birds and bats.

Due to the current condition of the Site, it is not considered that there is a need for pre-construction survey checks for protected species. However, if upon the commencement of the Proposed Development the cleared vegetation has recolonised the Site an assessment and or pre-works check by a suitably qualified ecologist will be required.

Chapter 6 of Planning Policy Wales (PPW) Edition 12 (2024) states that, the planning system must ensure development results in a net benefit for biodiversity (NBB) and ecosystem resilience to enhance well-being. Within the context of the Site, NBB can be achieved through:

- Enhancement and extension of the existing hedgerow, including tree planting;
- Use of native, drought tolerant plant species within planting areas;
- Inclusion of bat and bird boxes within the two residential buildings; and
- Creation of Hedgehog 'highways' to allow access through fenced gardens.

These recommendations demonstrate that the 'stepwise approach' has been followed to avoid, minimise, mitigate and compensate impacts resulting from the Proposed Development, as described in PPW Edition 12. The measures proposed support the Proposed Development in 'promoting the resilience of ecosystems,' as required in accordance with the Section 6 of the Environmental (Wales) Act 2016.

It is recommended that an Ecological Management Plan (EcMP) and a Construction Environmental Management Plan (CEMP) are produced in agreement with the local planning authority. The documents should include recommendations made within this report. The EcMP and CEMP will be employed throughout the Proposed Development to ensure ecological and environmental compliance.

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1. Introduction

1.1. Background

- 1.1.1. Certhia Ecology were commissioned to undertake a Preliminary Ecological Appraisal (PEA) of the habitats within a plot of land located within Plot 1A-B Colliers Row, Merthyr Tydfil CF48 1DP. The plot of land is centred at National Grid Reference SO 03901 06322 and is hereafter referred to as the 'Site' (see Figure 1).
- 1.1.2. It is understood the intention is to develop the Site and construct two residential dwellings. All planned works on Site are hereafter referred to as the 'Proposed Development'.
- 1.1.3. The purpose of this PEA is to provide sufficient information to update the baseline ecological information about the Site to support the planning application (P/26/0049) of the Proposed Development.

1.2. Scope of Report

- 1.2.1. Certhia Ecology were commissioned in June 2026 to complete a PEA of the Site. The brief was:
 - To provide baseline ecological information about the Site with particular reference to whether legally protected and / or notable sites, species or habitats are present or likely to be present;
 - To provide recommendations to enable compliance with relevant nature conservation legislation and planning policy; and
 - If necessary, to identify the need for avoidance, mitigation, compensation or enhancement measures and / or further ecological surveys.

1.3. Relevant Legislation and Policy

- 1.3.1. The appraisal has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in Wales.
- 1.3.2. The following legislation and policy has been considered through the production of this report:

Legislation

- The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- Countryside Rights of Way Act 2000;
- The Town and Countryside (Environmental Impact Assessment) (Wales) Regulations 2017;
- The Protection of Badgers Act 1992;
- The Wild Mammals (Protection) Act 1996;
- The Hedgerow Regulations 1997;

- Environment (Wales) Act 2016¹;
- The Wellbeing of Future Generations (Wales) Act 2015

Policy

- The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012);
- UK Biodiversity Action Plan (UKBAP)²;
- Planning Policy Wales (PPW) (Edition 12) 2024; and
- Technical Advice Note 5; Nature Conservation and Planning 2009.

¹ Public bodies have an obligation under Section 7 to have regard for certain priority species and / or habitats when carrying out their decision making with regard to planning applications.

² The UK BAP has now been replaced by the UK Post-2010 Biodiversity Framework, however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant.

2. Methods

2.1. Overview

- 2.1.1. This appraisal has been prepared with reference to current good practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017a, 2017b and 2018), Joint Nature Conservation Committee (JNCC, 2016); and guidance contained in the British Standard - Code of Practice for Biodiversity and Development BS42020:2013 (British Standards Institute (2013).
- 2.1.2. This PEA is based on the following data sources:
- An ecological desk study;
 - A habitat survey; and
 - A protected / notable species assessment.
- 2.1.3. A Daytime Bat Walkover (DBW) of the Site was undertaken. All structures and trees were subject to ground level roost assessments to assess their suitability for supporting roosting bats. These assessments were made in line with good practice guidelines (Collins, 2023).
- 2.1.4. The Site survey and all findings, recommendations and conclusions was completed by an ecologist with over 10 years' experience in ecological consultancy who is also a Member of the Royal Society of Biology (MRSB).

2.2. Desk Study

- 2.2.1. A desk study was undertaken in June 2026 to review existing ecological baseline information available in the public domain and to obtain information held by relevant third parties. The desk study was undertaken following current good practice guidance (CIEEM, 2017a and 2017b).
- 2.2.2. To provide the baseline data for the ecological desk study, the following information was requested from the South East Wales Biodiversity Records Centre (SEWBRc):
- Records of legally protected and notable species within 1km of the Site;
 - Records of statutory sites designated for national and international importance within 1km of the Site; and
 - Records of non-statutory sites designated for nature conservation value, Priority Habitats, and Natural Resources Wales (NRW) Priority Areas (including Ancient Woodlands) within 1km of the Site.
- 2.2.3. The findings of the desk study have been incorporated within Section 3 and Appendix A of this report.

2.3. Habitat Survey

- 2.3.1. A habitat survey of the Site (including boundary features) was carried out on the 2nd June 2026 The survey was undertaken by an ecologist that has experience in completing PEAs of sites containing similar habitat types.

- 2.3.2. Habitats were described and mapped following standard Phase 1 habitat types as per JNCC guidelines (JNCC 2016). Descriptions of recorded habitats are in Section 3.2 and shown in Figure 2.
- 2.3.3. Where appropriate consideration was given to whether habitats qualify, or could qualify, as Priority Habitats following habitat descriptions published by the Joint Nature Conservation Committee (JNCC, 2008).
- 2.3.4. Habitats were marked on a mobile mapping computer and were subsequently digitised using a Geographical Information System (GIS).
- 2.3.5. Target notes were made to provide information on specific features of ecological interest (e.g. reptile habitat piles). These are included in Appendix B and shown on Figure 2.
- 2.3.6. Any invasive plant species listed on Schedule 9 of the WCA 1981 (as amended) which were evident during the habitat survey were also target noted. Detailed mapping of such species; or a full survey of the Site for all invasive plant species is beyond the scope of this commission.

2.4. Daytime Bat Walkover (DBW)

- 2.4.1. The Site was subject to a DBW in accordance with good practice (Collins, 2023) with the objective of recording habitats suitable for bats to roost, commute and forage both within the Site and its surroundings. All qualifying habitat features within the Site were assigned suitability according to the criteria as described in Table 1.

Table 1 - Guidelines for assessing the suitability of habitats for Bats (Collins, 2023)

Habitat Feature	Suitability	Description
Habitat Suitability Assessment	None	No habitat features on Site likely to be used by and commuting or foraging bats at any time of the year.
	Negligible	No obvious habitat features on Site likely to be used as flightpaths or by foraging bats; however, may be used irregularly by bats as a result of non-standard behaviour.
	Low	Habitats within the Site that could be used by small numbers of bats. Habitats typically consist of open hedgerows or single trees / patches of scrub isolated from wider habitats.
	Moderate	Habitats within Site with continuous connectivity within and to the wider landscape. Habitats typically consist of lines of trees, connected gardens and scrub.
	High	Habitats within the Site of high quality with continuous connectivity within and to the wider landscape that are likely to be used regularly by bats. Habitats typically consist of broadleaved woodland, tree-lined watercourses and grazed parkland. Site close and connected to known roosts.

Habitat Feature	Suitability	Description
Preliminary Roost Assessment (PRA)	None	No habitat features on Site likely to be used by roosting bats at any time of year.
	Negligible	No obvious habitat features on Site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
	Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year.
	Moderate	A structure with one or more potential roost sites that could be used by multiple bats. Unlikely to support a roost of high conservation status such as maternity and hibernation.
	High	A structure with one or more potential roost sites that are suitable for use by large numbers of bats on a regular basis. Structures have high potential to support high conservation roosts.
Ground Level Tree Assessment (GLTA)	None	Either no Potential Roost Features (PRFs) within the tree or unlikely to be any.
	FAR	Further Assessment Required to establish the presence of PRFs within the tree.
	PRF	A tree with at least one PRF present.

- 2.4.2. Habitat Features were considered as requiring further surveys if they were assessed, Low, Moderate, High, FAR or PRF and within the Site, or at a distance where they may be likely to suffer disturbance from lighting, vibration or noise, or likely to support a roost of high conservation status that may be impacted by the severing of commuting routes from the roost, and lighting, noise, vibration impacts.

2.5. Protected Species Assessment

- 2.5.1. The potential for the Site to support legally protected and notable species was assessed using the desk study results and combined with field observations during the habitat survey. The assessment of habitat suitability for protected and notable species was based on professional experience and judgement.
- 2.5.2. Findings from field and desk elements were supplemented by standard sources of guidance on habitat suitability assessment for key faunal groups and species including; birds (Gilbert et al, 1998 and Bibby et al, 2000), Great Crested Newt *Triturus cristatus* (Gent and Gibson, 2003 and English Nature, 2001); reptiles (Froglife, 1999 and Gent and Gibson, 2003); bats (Collins, 2023); Badger *Meles meles* (Harris et al, 1991 and Roper, 2010); Hazel Dormouse *Muscardinus avellanarius* (English Nature, 2006); and invertebrates (Drake et al, 2007 and Kirby, P, 2001).

2.6. Notes and Limitations

2.6.1. Every effort has been made to provide a comprehensive description of the Site; however, the following specific limitations apply to this assessment:

- Ecological survey data is typically valid for two years (CIEEM, 2019) unless otherwise specified, for example if conditions are likely to change more quickly due to ecological processes or anticipated changes in management;
- Records held by local biological record centres and local recording groups are generally collected on a voluntary basis; therefore, the absence of records does not demonstrate the absence of species, it may simply indicate a gap in recording coverage;
- The Phase 1 habitat survey was carried out over the period of a single day, as such only a selection of all species that occur within the Site will have been recorded. However, through use of desk study information to supplement Site survey data, it is considered that an accurate assessment of the potential for the Site to support protected species or those of conservation concern was possible;
- The Phase 1 habitat map (Figure 2) has been produced using mapping software in the field. Whilst this provides a sufficient level of detail to fulfil the requirements of a PEA, owing to irregularities in GPS accuracy the maps are not intended to provide exact locations of key habitats;
- The Site has been subject to pre-emptive scrub / tree management. As such the findings of this PEA will be informed through a combination of historic satellite / street view data, desk study records and field observations. Recommendations for enhancement and mitigation will be based on those habitats believed present on Site prior to clearance.

3. Results and Discussion

3.1. Designated Sites

Statutory Sites

- 3.1.1. One designated site was found as part of the 1km search, the Cwm Glo a Glyndyrys Site of Special Scientific Interest (SSSI) is located approximately 264m from the Site. Information on the site can be found in Table 2.

Table 2 - Statutory sites within 1km of the Site

Site Name	Designation	Size (ha)	Approximate Distance from Site	Description
Cwm Glo a Glyndyrys	SSSI	181.3	264	Cwm Glo a Glyndyrys is of special interest for its extensive areas of marshy grassland, species-rich neutral grassland and acid grassland, and for the association of these habitats with others including woodland and heath. It is also of special interest for its outstandingly diverse assemblage of grassland fungi, including 32 species of waxcap <i>Hygrocybe</i> spp, making it one of the best sites in Britain.

- 3.1.2. These statutory sites were outside of the Site boundary, and due to the localised nature of the Proposed Development (confined to the Site boundary), lack of pathway for potential impacts and distance from the site, it is considered that the Proposed Development will not impact upon the sites listed above. They are therefore not discussed further in this assessment.

Non-Statutory Sites

- 3.1.3. The desk study identified seven non-statutory sites within 1km of the Site. Sites included a B-Line and Sites of Importance for Nature Conservation (SINC). Descriptions are detailed in Table 3.

Table 3 - Non-statutory sites within 1km of the Site

Site Name	Designation	Approximate Distance from Site	Description ³
B-Line	B-Line	Encompasses the Site	B-Lines are a national initiative to establish a pathway of connected habitats that support a wide range of invertebrate populations. B-Lines are further supported by 'The Action Plan for Pollinators in Wales' Welsh Government, 2013.
Cwm Glo	SINC	176	The SINC contains the Cwm-Glo a Glyndyrus SSSI which is of international significance for Glyndyrus grassland fungi. Extensive areas of marshy grassland, species rich neutral grassland and acid grassland alongside woodland and heath supporting an impressive variety of protected, rare and uncommon species including marsh fritillary butterfly <i>Euphydryas aurinia</i> , Great Crested Newt <i>Triturus cristatus</i> , big blue pinkgill <i>Entoloma bloxamii</i> and olive earthtongue <i>Microglossum olivaceum</i> .
Cwm Taf Fechan	SINC	442	The SINC contains Cwm Taf Fechan SSSI. The limestone geology gives rise to limestone woodlands, species-rich calcareous grasslands, species-rich neutral grasslands and calcareous scrub. Many species of interest have been recorded from the woodlands which are the designated feature of the SSSI. The neutral and calcareous grasslands of the valley slopes and bottom are typically species-rich. Otter <i>Lutra lutra</i> ranges along the Afon Taf Fechan, which also supports a range of native fish species including salmon. Nationally rare and scarce invertebrate and bryophyte species have been recorded from the SSSI

³ Descriptions of non-statutory designated sites listed as provided through accessing information from local councils, therefore information may not be detailed beyond basic descriptions of habitats.

Site Name	Designation	Approximate Distance from Site	Description ³
Cwm Taf Fields & Cefn Coed Tip	SINC	465	Linear series of fields between the Afon Taf Fawr and the A470, also containing areas of seminatural woodland and a revegetated limestone slag tip from the former Cyfarthfa Ironworks as well as smaller areas of semi-improved acid grassland, scrub, bracken slopes and dry heathland. The fields are a mosaic of damp and dry neutral grasslands with species-rich areas. The woodlands are variable in character, including areas of wet willow woodland, acid oak woodland and some base rich ash woodland near the calcareous tip. The thin soils on the tip plateau support a unique type of calcareous grassland.
Afon Taf	SINC	567	The major river in the County Borough. Includes areas of bankside habitats, particularly towards the south where the river corridor is less industrialised than further north. Associated habitats are chiefly semi-natural woodland, including areas of ancient semi-natural woodland and linear wet woodlands. There are also numerous neutral grasslands, scrub patches and bracken stands, as well as small areas of marshy grassland and tall herb vegetation. Notable features of the river course include cobble banks which support localised plants. Otter occurs throughout the length of the river which is known to be of value to a wide variety of birds, fish, bats and reptiles.

Site Name	Designation	Approximate Distance from Site	Description ³
Cwm Taf Fawr	SINC	875	Section of major river tributary of the Afon Taf. The river extends into Brecon Beacons National Park to the north. Includes adjacent woodlands, which are relatively undisturbed in the upper reaches and more urban in character further downstream. The upper reaches in particular are of high ecological value, comprising limestone gorge woodland with a rich ground flora. Numerous rare plant species occur here. Further south the riverside woodland is more acid in character but nevertheless supports a relatively diverse ground. The site also includes some adjacent areas of species-rich calcareous, neutral and acid grasslands. The calcareous grasslands in particular support numerous species which are scarce in the County Borough. Otter ranges along the Afon Taf Fechan, which also supports a range of native fish species including salmon.

- 3.1.4. With regard to the B-Line; this is a non-statutory site that encompasses the Site boundary. It is anticipated the Proposed Development will be limited to areas of scrub and ruderal habitat within the Site. Therefore, habitats to be protected and enhanced as part of the B-Line are considered likely to be impacted as a result of the Proposed Development. Due to the obligation to protect and enhance habitat for pollinators as part of the B-line initiative appropriate mitigation for habitat loss is included within Section 4 of this report.
- 3.1.5. All other non-statutory sites were outside of the Site boundary. Due to the localised nature of the Proposed Development (confined to the Site boundary), lack of pathway for potential impacts and distance from the sites, it is considered that the Proposed Development will not impact upon the sites listed above. They are therefore not discussed further in this assessment.

Other Habitats of conservation importance

- 3.1.6. The desk study identified two sites of conservation importance within 1km of the Site, these included:
- One ancient semi natural woodland, 750m from the Site; and
 - One NRW Priority Area (Heathland and Grassland) 275m from the Site.
- 3.1.7. Due to the localised nature of the Proposed Development (confined to the Site boundary), lack of pathway for potential impacts and distance from the sites of conservation importance outside of the Site boundary, it is considered that the Proposed Development will not impact upon the sites listed above. They are therefore not discussed further in this assessment.

3.2. Habitats

Overview

- 3.2.1. The following account summarises the findings of the habitat survey. A total of three Phase 1 classification types were identified within the Site. The habitats are mapped on Figure 2 and listed in Table 4 along with their area (or length for linear features).
- 3.2.2. A description of the habitat's location and condition within the Site are provided along with an indicative species list. Target notes are provided in Appendix B and photographs in Appendix C.

Table 4 - Phase 1 Habitat Areas

Phase 1 Habitat Classification Types	Area (m ²)	Length (m)
A2.1 – Scrub – dense / continuous	393	-
C3.1 – Other tall herb and fern - ruderal	119	
J2.3.2 – Hedge with trees – species poor	-	45
HS – Hard Standing	74	-
TOTAL	586	45

A2.1 – Scrub – Dense / Continuous

- 3.2.3. A review of historic Streetview and satellite imagery (Appendix C, Photo 1 - 4) shows the majority of the Site covered by dense scrub, consisting predominantly of Bramble *Rubus fruticosus*. At the time of the PEA the majority of scrub habitat had been cleared, however some scrub regrowth was observed.
- 3.2.4. This habitat does not align with any Priority Habitat categories.

C3.1 – Other tall herb and fern – ruderal

- 3.2.5. A review of historic Streetview and satellite imagery (Appendix C, Photo 1 - 4) shows patches of emergent ruderal vegetation growing within areas of the dense scrub. At the time of the survey a strip of ruderal vegetation was beginning to establish, forming the part of the eastern boundary. Species present included, Creeping Buttercup *Ranunculus repens*, Broad leaved Dock *Rumex obtusifolius*, Rose Bay Willow Herb *Chamaenerion angustifolium*, and Mares Tail *Equisetum arvense*.
- 3.2.6. This habitat does not align with any Priority Habitat categories.

J2.3.2 – Hedge with trees – species poor

- 3.2.7. A review of historic Streetview and satellite imagery (Appendix C, Photo 1 - 4) shows a hedgerow forming the western boundary of the Site. When reviewing the satellite imagery over time, it is considered that this habitat began as a hedgerow and through lack of ongoing management resulted in many species becoming overmature forming a more open hedge network with a higher canopy.

- 3.2.8. At the time of the PEA, several of the trees had been cut back or removed entirely, however, due to its location on the Site boundary the general arrangement of the hedgerow remained.
- 3.2.9. Species identified included; Ash *Fraxinus excelsior*⁴, Hawthorn *Crataegus monogyna*, Hazel *Corylus avellana* and Sycamore *Acer pseudoplatanus*. From an assessment of the stumps present on Site it is estimated that a total of three semi-mature trees (two Ash and one Sycamore) were removed, the remainder being over-mature hedgerow species such as Hawthorn and Hazel.
- 3.2.10. The hedgerow on Site are considered a Priority Habitat and are furthermore considered an 'important' hedgerow under The Hedgerow Regulations 1997. Recommendations for mitigation and protection during construction and operation of the Proposed Development are included within Section 4 of this Report.

HS – Hard Standing

- 3.2.11. Hard standing in the form of a footpath formed the northern and eastern boundary of the Site.

3.3. Daytime Bat Walkover (DBW)

No buildings or trees were identified with the suitability to support roosting bats. The semi-mature ash trees present on Site prior to clearance were of the size / age that could have or may have supported bat roosts in the future.

Habitat suitability assessment

- 3.3.1. The relatively small size of the site and homogenous nature of scrub and ruderal vegetation present within the offer limited opportunities for foraging bats.
- 3.3.2. It is considered the hedgerow with trees on the Sites western boundary is the most valuable feature, forming a flightline for commuting and provides connectivity to wider woodland habitats.
- 3.3.3. Overall, the Site is considered of low suitability for bats.

3.4. Protected and Notable Species Assessment

- 3.4.1. The potential for the Site to support legally protected species and notable species has been assessed using the results of the desk study and observations made during the Site survey of habitats within and immediately surrounding the Site. A summary of desk study information is included within Appendix A. Desk study records have only been considered below if they are recent (from the last 10 years) and / or if they relate to species that may be supported by habitats at the Site. Habitats present within the Site are suitable for the following species; further consideration is given below to the likelihood for these species to be present within the Site:

- Western European Hedgehog *Erinaceus europaeus*;
- Bats;
- Birds;
- Amphibians;

⁴ A close review of Streetview photography of the Site appears to show evidence of crown recession often associated with Ash dieback (*Hymenoscyphus fraxineus*), without an arboricultural assessment this cannot be confirmed. However, the presence of ash dieback within the wider area should be made when selecting compensatory planting.

- Reptiles; and
- Invertebrates.

3.4.2. The Site does not provide suitable habitat for other protected or notable species⁵, beyond those listed above, these species will not be considered further in this PEA.

Western European Hedgehog

- 3.4.3. The Western European Hedgehog is listed on Schedule 6 of the Wildlife and Countryside Act (1981) which makes it illegal to kill or capture wild Hedgehog and is listed under the Wild Mammals Protection Act (1996), which prohibits cruel treatment of Hedgehog.
- 3.4.4. The species are considered vulnerable in Wales and is also listed as a Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016.
- 3.4.5. Four records for Hedgehog were returned within 1km of the Site, the closest being 493m from the Site.
- 3.4.6. The dense scrub, ruderal habitats and the hedgerow understorey are considered suitable for foraging, commuting and nesting / hibernating Hedgehog.
- 3.4.7. Avoidance / mitigation measures to be employed during construction and enhancement opportunities for Hedgehog are included in Section 4 of this report.

Bats

- 3.4.8. All species of bats recorded within the UK are protected from killing, injury and disturbance and their roosts protected from damage or destruction under the Habitats Regulations. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of individuals occupying places of rest or shelter and obstruction of access to these. Activities that would otherwise constitute an offence under this legislation may be licensed by Natural Resources Wales for certain purposes.
- 3.4.9. Certain species of bats, including the Bechstein's Bat *Myotis bechsteinii*, Greater Horseshoe *Rhinolophus ferrumequinum*, Lesser Horseshoe *Rhinolophus hipposideros*, Noctule Bat *Nyctalus noctula*, Brown Long-eared *Plecotus auritus* and Soprano Pipistrelle *Pipistrellus pygmaeus* are also listed as Priority Species for the conservation of biodiversity in Wales in accordance with Section 7 of the Environment (Wales) Act 2016.
- 3.4.10. 14 records for bats were returned within 1km of the Site. The records were for the following species / groups; Bat, Myotis Bat species, Noctule *Nyctalus noctula*, Common Pipistrelle *Pipistrellus pipistrellus*, Brown Long-eared Bat *Plecotus auritus*, Greater Horseshoe Bat *Rhinolophus ferrumequinum* and Lesser Horseshoe Bat *Rhinolophus hipposideros*. The closest record being for Myotis Bat species, Common Pipistrelle, Lesser Horseshoe Bat, Greater Horseshoe Bat, Noctule and Brown Long-eared Bat, 521m from Site.
- 3.4.11. Overall, the Site is considered of Low suitability for bats with the hedgerow forming the western boundary being an important habitat feature for commuting bats moving within the wider area. Due

⁵ In some instances, the desk study may return records for protected species within a theoretical catchment of the Site. However, a lack of pathway and or suitable habitat means the Site itself is not suitable and to avoid confusion they are omitted from the report.

to the small nature of the foraging habitat lost on Site and the planned retention of the hedgerow it is not considered targeted surveys are proportionate to the potential impacts on bats moving through the Site.

- 3.4.12. Avoidance / mitigation measures to be employed during construction and enhancement opportunities for bats are included in Section 4 of this report.

Birds

- 3.4.13. The Habitat Regulations 2017 Part 1 Regulation 10(2) & (3) state that local authorities 'must take such steps in the exercise of their functions as they consider appropriate to contribute to...the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the UK including by means of the upkeep, management and creation of such habitat...'. The legislation continues to state that economic and recreation requirements must be taken into consideration in considering which measures are appropriate.
- 3.4.14. Under the Wildlife and Countryside Act 1981 (as amended) all wild birds are protected from killing and injury, and their nests and eggs protected from taking, damage and destruction whilst in use. Additional protection is extended to species listed under Schedule 1 of the Act, meaning it is also an offence to disturb these species at or near the nest, or whilst they have dependent young.
- 3.4.15. Various bird species are also listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016.
- 3.4.16. The desk study returned 126 records from 36 species of birds within 1km of the Site. A full list of species can be found in Appendix A.
- 3.4.17. The dense scrub, and hedgerow within the Site are considered suitable habitat for common nesting bird species. The Proposed Development will result in the loss of habitat considered suitable for nesting birds
- 3.4.18. Avoidance / mitigation measures to be employed during construction and enhancement opportunities for birds are included in Section 4 of this report.

Amphibians

- 3.4.19. Great Crested Newts are protected from killing, injury and disturbance and their places of rest or shelter (occupied habitat) protected from damage or destruction under the Habitats Regulations. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of individuals occupying places of rest or shelter and obstruction of access to these. Activities that would otherwise constitute an offence under this legislation may be licensed by Natural Resources Wales for certain purposes.
- 3.4.20. Great Crested Newts and Common Toad *Bufo bufo* are also listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016.
- 3.4.21. Six records of a amphibians were returned within 1km of the Site. Species included, Common Frog *Rana temporaria*, Palmate Newt *Lissotriton helveticus*, Great Crested Newt⁶ and 'amphibian'.

⁶ Records for Great Crested Newt were dated from 1966 and 2011 but have been included for completeness.

- 3.4.22. There are no ponds / watercourses considered suitable for Great Crested Newt or other amphibians dependent on such habitats for reproduction / early life stages. Therefore, Great Crested Newt are not considered further in this assessment.
- 3.4.23. Although isolated from nearby ponds the dense scrub and ruderal habitats within the Site are considered suitable habitat for amphibian species less dependent on waterbodies such as the Common Toad. The Proposed Development will result in the loss of habitat considered suitable for these species.
- 3.4.24. Avoidance / mitigation measures to be employed during construction and enhancement opportunities for amphibians are included in Section 4 of this report.

Reptiles

- 3.4.25. Widespread reptile species (Common or Viviparous Lizard *Zootoca vivipara*, Adder *Vipera berus*, Grass Snake *Natrix helvetica* and Slow-Worm *Anguis fragilis*) are partially protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This includes protection from killing and injury.
- 3.4.26. All reptile species are also listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016.
- 3.4.27. One record for Common Lizard was returned, 915m from the Site.
- 3.4.28. The dense scrub and ruderal habitats within the Site are considered suitable habitat for common reptile species. The Proposed Development will result in the loss of a of habitat considered suitable for reptile species.
- 3.4.29. General avoidance / mitigation measures are recommended, details of which are included within Section 4 of this report.

Invertebrates

- 3.4.30. Certain invertebrate species are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in England and Wales. Furthermore, 118 Species of invertebrate are listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016.
- 3.4.31. A total of 51 records across 14 invertebrate species were provided within 1km of the Site, three of which are listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016. A full list of invertebrate species can be found in Appendix A.
- 3.4.32. 15 records of Marsh Fritillary *Euphydryas aurinia* were returned within 1km of the Site. The closest record was 653m. However, no Devil's-bit Scabious *Succisa pratensis* was recorded across the Site, furthermore the Site is not considered to be a habitat in which Devil's-bit Scabious would likely occur. Marsh Fritillary are not considered further in this assessment.
- 3.4.33. Areas of scrub and ruderal habitat on Site were considered to have suitability to support invertebrate species. Enhancement measures to ensure the Site remains suitable for Invertebrates are included in Section 4 of this report.

Invasive Non-Native Plant Species

- 3.4.34. Certain plant species are listed on Schedule 9 of the Wildlife and Countryside Act. It is an offence to plant or otherwise cause these species to grow in the wild.

- 3.4.35. The desk study returned ten records of Schedule 9 INNS within 1km of the Site. Species recorded were; Japanese Knotweed *Reynoutria japonica*, Wall Cotoneaster *Cotoneaster horizontalis* and Himalayan Balsam *Impatiens glandulifera*. The closest record was for Japanese Knotweed, 91m from the Site.
- 3.4.36. At the time of survey, several stands of Snowberry *Symphoricarpos albus* (TN1) were found within the hedgerow with trees forming the western boundary of the Site. Although not a Schedule 9 species, Snowberry can form dense thickets, outcompeting native species and can spread throughout an area through rhizomes.
- 3.4.37. Recommendations for the management of INNS within the Site are included within Section 4 of this report.

4. Recommendations

4.1. Protected and Notable Species

- 4.1.1. Due to the pre-emptive clearance of the Site, there is little habitat present to support notable / protected species that would require any ecological intervention such as a pre-works checks or Ecological Clerk of Works.
- 4.1.2. However, if upon the commencement of the Proposed Development vegetation has regrown to an extent that it can support protected species the following approach is recommended:
- Birds - an ecologist to be present when dense scrub is being removed in the nesting bird season (March to September inclusive); and
 - Reptiles and amphibian - an ecologist should be present to supervise vegetation clearance works of scrub habitats, clearance to be undertaken during the reptile and amphibian active season (March and October) as to avoid the likelihood of disturbing hibernating reptiles / amphibians.

4.2. Net Benefit for Biodiversity

- 4.2.1. Planning Policy Wales (2024) states that the planning system must ensure development results in a net benefit for biodiversity and ecosystem resilience to enhance well-being.
- 4.2.2. It defines a net benefit as development leaving “biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and long term, measurable and demonstrable benefit, primarily on or immediately adjacent to the Site.”
- 4.2.3. To support local authorities in achieving their Section 6 duty to “promote the resilience of ecosystems” when determining planning applications, the DECCA Framework should be adhered to, in order to ensure a net benefit for biodiversity (NBB) (CIEEM, 2022). This includes following the stepwise approach to minimise land take within the Site.

Habitats – Ecological Enhancement Opportunities

- 4.2.4. The hedgerow present on Site has deteriorated as a result of a lack of management. The hedgerow understory has become open, offering limited cover for ground species and nesting birds whilst the canopy provided only limited cover for nesting bird. Its greatest value is acting as a flight line for commuting bats. Furthermore, the presence of Snowberry within the hedgerow reduces its overall value as a habitat feature.
- 4.2.5. The Landscape Plan (Appendix D) maintains the hedgerow in its current location, whilst extending a section on the northern Site boundary to act as additional screening. A total of five trees are to be planted as part of the current landscape plan⁷.
- 4.2.6. In order to achieve an overall NBB of habitats within the Site the following is recommended:

⁷ Current planning policy states that trees should be replanted to a minimum ratio of 3:1, meaning a total of nine trees should be planted to compensate for those three mature trees lost.

- Prior to any hedgerow planting the existing stands of Snowberry should be removed along with efforts made to also remove any rhizomes to ensure no recolonisation of the Site;
 - Existing and new areas of hedgerow planting to incorporate a mix of native species that naturally grow to form a dense thicket;
 - Recommended species include; Hawthorn, Blackthorn *Prunus spinosa*, Wild Cherry *Prunus avium*, Holly *Ilex aquifolium* and Hazel;
 - In order to achieve the expected tree planting ratio, it is recommended that the hedgerow be extended to include the southern Site boundary with an additional four trees added to the landscape plan, or provision for these trees made in an offsite location close to the Site;
 - When selecting trees efforts should be taken to use native, deciduous trees that will provide high ecological value, whilst being most appropriate for the Site⁸;
 - Recommended species include; Rowan *Sorbus aucuparia*, Hornbeam *Carpinus betulus*, Silver Birch *Betula pendula* and Sessile Oak *Quercus petraea*; and
 - Rain gardens and planting areas within the landscape plan to be planted with drought tolerant, native wildflower species.
- 4.2.7. A tighter re-established hedgerow will create a denser thicket, acting as cover for nesting birds, Hedgehog, reptiles and amphibians and staggered planting of trees within the hedgerow will maintain the flightline for Bats moving through the Site.
- 4.2.8. Furthermore, the incorporation of blooming hedgerow species and native wildflowers within planting areas provides a valuable resource for invertebrates, meeting the objectives of the B-line initiative.
- 4.2.9. If the above habitat-wide approach highlighted above is enacted it is considered there will be an overall NBB following the completion of the Proposed Development.

Protected and Notable Species – Ecological Enhancement Opportunities

- 4.2.10. In order to provide additional species specific NBB in addition to the habitat wide improvements recommended above the following approach is recommended:
- Integrated Bat and Bird boxes within buildings (Appendix E); and
 - Hedgehog 'highways' providing free access through the gardens by making allowances in the gravel boards of fencing, holes to measure approximately 13x13cm.
- 4.2.11. If the above species-specific measures are enacted it is considered that there will be an overall NBB following the completion of the Proposed Development.

Summary

- 4.2.12. It is considered that if the above habitat and species-specific recommendations are enacted that the Proposed Development will have an overall Net Benefit to Biodiversity.
- 4.2.13. The type and combination of measures proposed demonstrate that the 'stepwise approach' has been followed to avoid, minimise, mitigate and compensate impacts resulting from the Proposed Development, in line with the DECCA framework as described in PPW Edition 12.

⁸ When selecting trees for the Site reference has been made to the Forest Research Ecological Site Classification (ESC) tool (Accessed June 2026 - <http://www.forestdss.org.uk/geoforestdss/>)

4.3. Environmental Best Practice

4.3.1. General environmental protection measures must be implemented during the construction phase of the Proposed Development. Such measures include best environmental practice guidance outlined in the NRW Guidance for Pollution Prevention (NRW, 2018) and those outlined by the Construction Industry Research and Information Association guidance (CIRIA, 2015). The following minimum standards must be adhered to prevent ecological impacts beyond the Site boundary:

- Measures must be taken to prevent dust and other emissions from construction affecting land beyond the Site;
- Waste to be appropriately stored as to not form hibernacula that may be used by the species present within the Site;
- Any excavations covered and / or a ramp placed in any uncovered excavations to allow any entrapped species to escape;
- Chemicals and fuels must be stored in secure containers located away from watercourses or water bodies. Spill kits must be available;
- Good horticultural practice should be utilised, including the use of peat-free composts, mulches and soil conditioners
- Noise and vibration must be controlled and kept to the minimum necessary; and
- Lighting used for construction must be switched-off when not in use and positioned so as not to spill on to adjacent land or retained vegetation within the Site.

4.3.2. It is recommended that an Ecological Management Plan (EcMP) and a Construction Environmental Management Plan (CEMP) are produced in agreement with the local planning authority. The documents should include recommendations made within Section 4 of this report. The documents will be employed throughout the Proposed Development to ensure ecological and environmental compliance.

5. Conclusions

- 5.1.1. The Site was comprised of a single land parcel consisting of; dense scrub, ruderal vegetation, hard standing and hedgerow with trees.
- 5.1.2. In total one statutory and seven non-statutory conservation site(s) were identified within 1km of the Site. Due to the localised nature of the Proposed Development (confined to the Site boundary) it is considered that these sites located beyond the Site boundary are not to be directly impacted by the Proposed Development.
- 5.1.3. With regard to the B-Line; this is a non-statutory site that encompasses the Site boundary. It is anticipated the Proposed Development will result in the loss of scrub and ruderal vegetation within the Site. Consideration has been given with regard to the objectives of the B-Line initiative when making NBB recommendations.
- 5.1.4. Due to the current condition of the Site, it is not considered that there is a need for pre-construction survey checks for protected species. However, if upon the commencement of the Proposed Development the cleared vegetation has recolonised the Site an assessment and or pre-works check by a suitably qualified ecologist will be required.
- 5.1.5. To ensure the Proposed Development complies with planning policy and demonstrates the implementation of the 'stepwise approach' in line with the DECCA framework. Several Net Benefit for Biodiversity enhancements are recommended:
 - Enhancement and extension of the existing hedgerow, including tree planting;
 - Use of native, drought tolerant plant species within planting areas;
 - Inclusion of bat and bird boxes within the two residential buildings; and
 - Creation of Hedgehog 'highways' to allow access through fenced gardens.
- 5.1.6. It is recommended that an Ecological Management Plan (EcMP) and a Construction Environmental Management Plan (CEMP) are produced in agreement with the local planning authority. The documents should include recommendations made within this report. The EcMP and CEMP will be employed throughout the Proposed Development to ensure ecological and environmental compliance.

6. References

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7. Figures

Figure 1 – Site Location Plan

Figure 2 – Phase 1 Survey Results

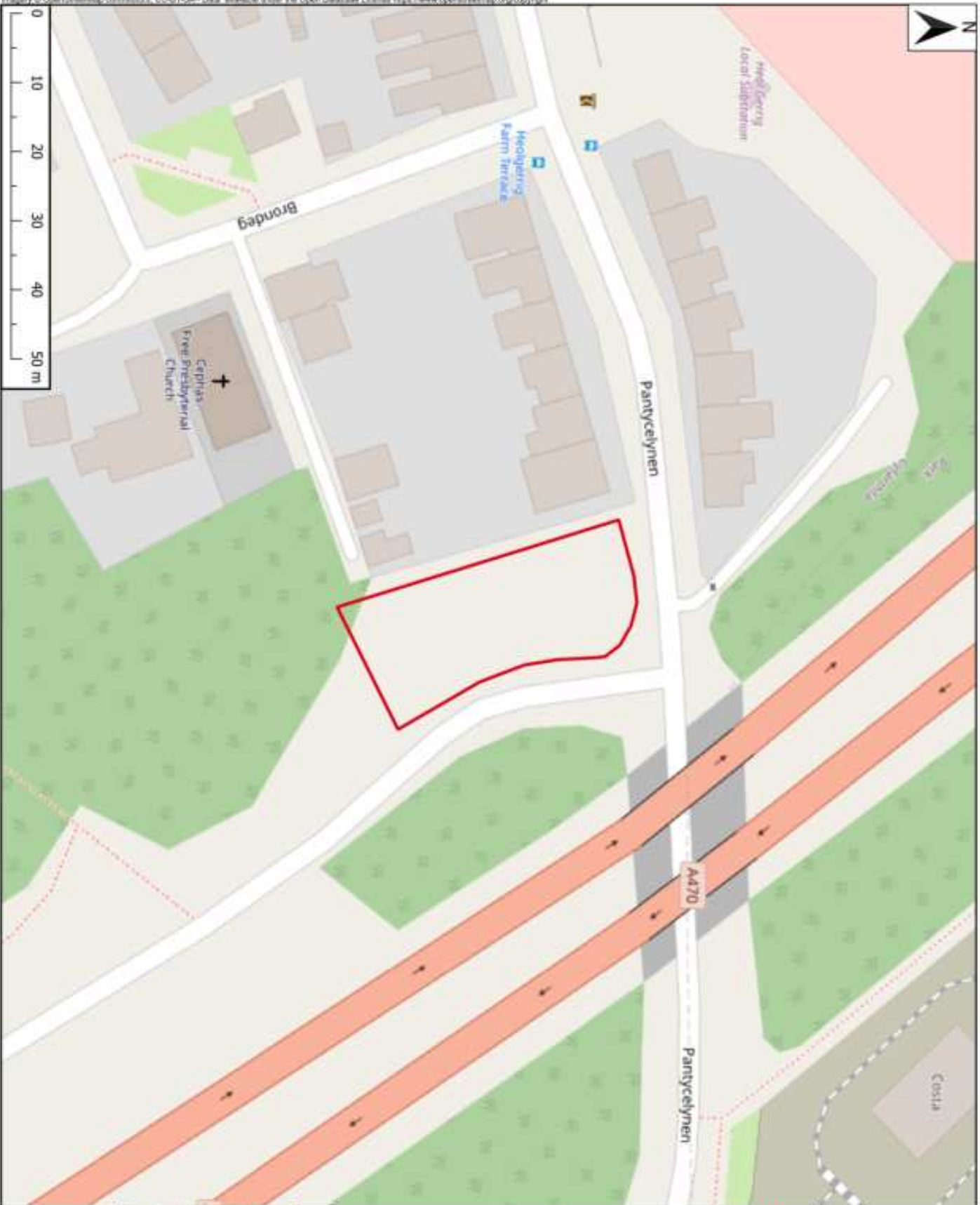


Figure 1:
Site Location

Main Map Scale: 1:500 (A3)
Date Modified: 25/05/2028

Legend

Site



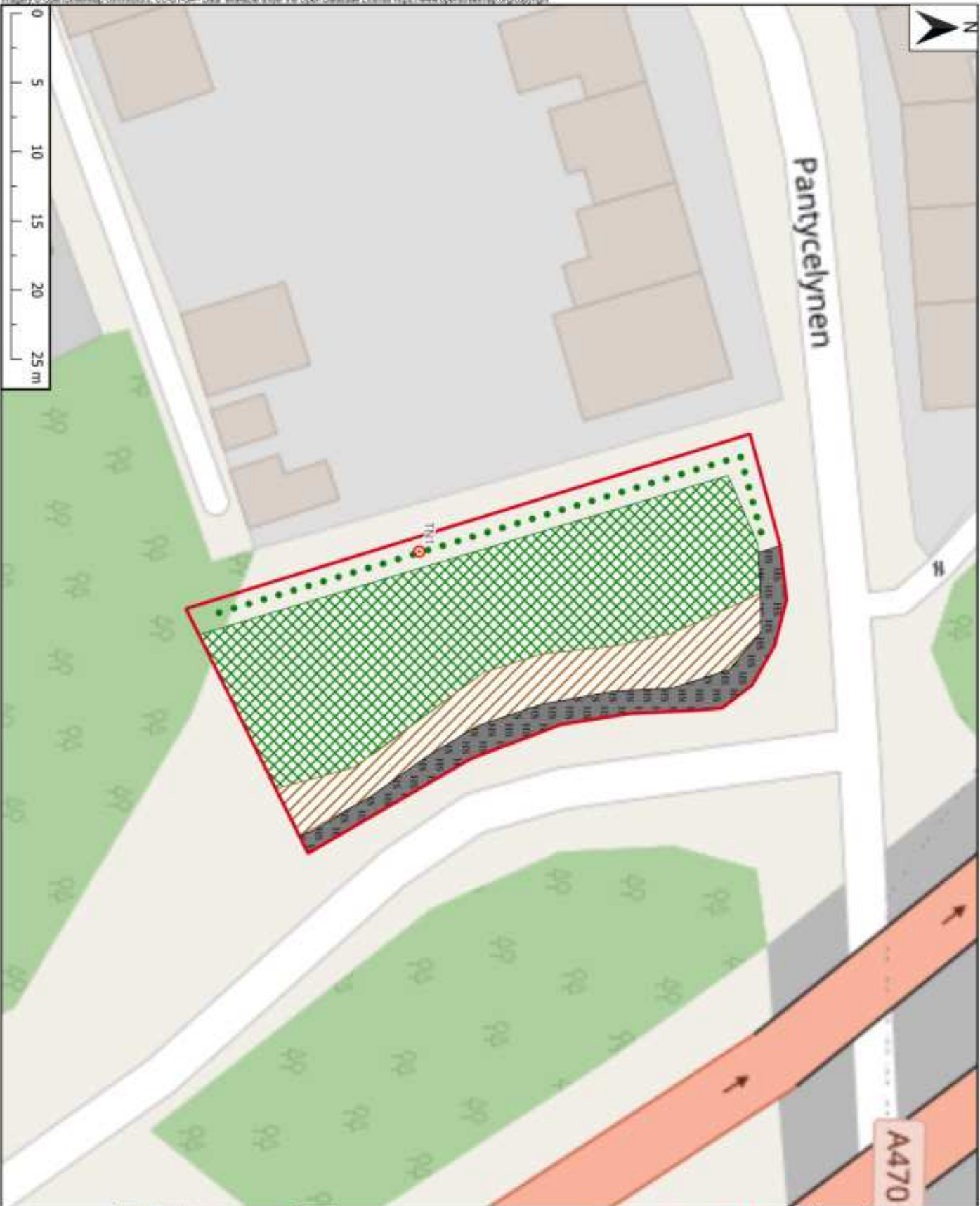


Figure 2:

Phase 1 Survey Results

Main Map Scale: 1:250 (A3)
Date Modified: 01/07/2028

Legend

- Survey Area**
- Site
 - Target Note
- Phase 1 Results**
- A3.1 - Broadleaved Parkland / scattered trees
 - A2.1 - Scrub - dense / continuous
 - C3.1 - Other tall herb and fern - ruderal
 - Hard Standing



Appendix A

Classifications summary of ecological desk study data

Table A1 - Protected and notable birds for which records have been identified within 1km of the Site.

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status ⁹
Wheatear	<i>Oenanthe oenanthe</i>	1	279	S7, Bern, WBAm (RSPB), LBAP (CON, POW)
Lesser Black-backed Gull	<i>Larus fuscus</i>	5	358	BDir22, S7, WBAm (RSPB), UKBAm (RSPB), LBAP (CON, GWY, PEM, POW, SNP), WS_C
Herring Gull	<i>Larus argentatus</i>	6	358	BDir22, S7, WBR(RSPB), UKBR(RSPB), LBAP (CON, GWY, POW, VOG), WS_C
Sand Martin	<i>Riparia riparia</i>	6	428	Bern, WBAm (RSPB), LBAP (CON, DEN, GWY, POW, VOG), WS_C
Red Kite	<i>Milvus milvus</i>	2	436	BDir1, WCA1, WCA9, CITES, WBAm (RSPB), LBAP (CON, CRM, GWY, POW), WS_P
Song Thrush	<i>Turdus philomelos</i>	9	496	BDir22, S7 (2016), Bern, WBAm (RSPB), UKBR(RSPB), LBAP (ANG, BBNP, CER, CLY, CON, DEN, GWY, PEM, POW, SNP, TRF, VOG, WRE), WS_C
Willow Warbler	<i>Phylloscopus trochilus</i>	5	496	S7, WBR(RSPB), UKBAm (RSPB), LBAP(CON)
Dunnock	<i>Prunella modularis</i>	4	496	S7, Bern, UKBAm (RSPB), LBAP (CON, POW, VOG)
Barn Owl	<i>Tyto alba</i>	1	496	WCA1, WCA9, Bern, CITES, LBAP (ANG, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRA, VOG, WRE), LI(VC43), WS_C
Long-tailed Tit	<i>Aegithalos caudatus</i>	5	496	WBAm (RSPB)
Swift	<i>Apus apus</i>	4	496	S7, WBAm (RSPB), UKBAm (RSPB), LBAP (RCT, VOG)

⁹ HabReg = Conservation of Habitats and Species Regulations (2017), W&CA = Wildlife and Countryside Act (1981), NERC = Schedule 42 Natural Environment and Rural Communities Act (2006), LBAP = Local Biodiversity Action Plan, RD1 (Wales) = Welsh Red Data Book listing based on IUCN guidelines, RD1 (UK) = UK Red Data Book listing based on IUCN guidelines, RD2 (UK) = UK Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce), BDir1 = EC Birds Directive Annex 1 Species, BDir21 = EC Birds Directive Annex 2.1 Species, BDir22 = EC Birds Directive Annex 2.2 Species, Bern = The Bern Convention on the Conservation of European Wildlife and Natural Habitats, WBR (RSPB) = RSPB Welsh Red listed birds (not based on IUCN criteria), WBAm (RSPB) = RSPB Welsh Amber listed birds (not based on IUCN criteria), UKBAm (RSPB) = RSPB UK Amber listed birds (not based on IUCN criteria), S7 = Environment Act (Wales) Section 7 Species.

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status ⁹
Mallard	Anas platyrhynchos	3	625	BDir21, WBAm (RSPB), UKBAm (RSPB), LBAP (CON, GWY)
Grey Heron	Ardea cinerea	3	625	S7, WBAm (RSPB), LBAP(RCT)
House Martin	Delichon urbicum	4	625	S7, Bern, UKBAm (RSPB), LBAP (CON, POW, RCT, VOG)
Dipper	Cinclus cinclus	10	625	Bern, WBAm (RSPB), UKBAm (RSPB), LBAP (CLY, CON, MTR, POW, RCT, TRA)
House Sparrow	Passer domesticus	7	625	S7, WBAm (RSPB), UKBR(RSPB), LBAP (CLY, CON, GWY, VOG), WS_C
Magpie	Pica pica	6	625	BDir22, S7
Goldcrest	Regulus regulus	1	625	S7, Bern, WBAm (RSPB), LBAP (CON, POW)
Grey Wagtail	Motacilla cinerea	5	625	S7, Bern, WBAm (RSPB), UKBR(RSPB), LBAP (CLY, CON, POW, TRA)
Cormorant	Phalacrocorax carbo	2	625	WBAm (RSPB), LBAP (CON, GWY, POW), WS_P, WS_C
Black-headed Gull	Chroicocephalus ridibundus	2	625	BDir22, S7, WBR(RSPB), UKBAm (RSPB), LBAP (GWY, VOG), WS_P
Kingfisher	Alcedo atthis	7	625	BDir1, WCA1, Bern, WBAm (RSPB), UKBAm (RSPB), LBAP (CLY, CON, DEN, GWY, POW, TRA), WS_C
Mistle Thrush	Turdus viscivorus	4	625	BDir22, S7, Bern, WBAm (RSPB), UKBR(RSPB)
Coal Tit	Parus ater	3	625	S7, Bern, LBAP (CON, POW)
Tufted Duck	Aythya fuligula	1	625	BDir21, WBAm (RSPB), LBAP (CON, POW, VOG)
Kestrel	Falco tinnunculus	1	625	S7, Bern, CITES, WBR(RSPB), UKBAm (RSPB), LBAP (ANG, CLY, CON, DEN, GWY, PEM, POW, VOG), LI(VC43), WS_P, WS_C
Coot	Fulica atra	2	625	BDir21, S7, WBAm (RSPB)
Chaffinch	Fringilla coelebs	5	625	S7
Canada Goose	Branta canadensis	2	625	BDir21, WCA9, INNS
Hobby	Falco subbuteo	1	625	WCA1, Bern, CITES, LBAP (CON, GWY, POW, VOG), LI(VC43), WS_P
Bullfinch	Pyrrhula pyrrhula	4	740	S7, WBR(RSPB), UKBAm (RSPB), LBAP (BBNP, CER, CLY, CON, DEN, GWY, PEM, TRF, VOG), WS_C
Starling	Sturnus vulgaris	1	817	BDir22, S7, Bern, WBR(RSPB), UKBR(RSPB), LBAP (BBNP, CON, GWY, VOG), WS_C

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status ⁹
Greenfinch	<i>Chloris chloris</i>	1	853	S7, Bern, WBAm (RSPB), LBAP (CON, POW)
Great Black-backed Gull	<i>Larus marinus</i>	1	859	BDir22, S7, WBR(RSPB), UKBAm (RSPB), WS_P, WS_C
Green Sandpiper	<i>Tringa ochropus</i>	1	867	WCA1, S7, Bern, WBAm (RSPB), UKBAm (RSPB), LBAP (CON, VOG)
Swallow	<i>Hirundo rustica</i>	1	893	Bern, WBAm (RSPB), LBAP (ANG, CON, GWY, POW, VOG)

Table A2 - Protected and notable species for which records have been identified within 1km of the Site.

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status
Mammals				
Weasel	<i>Mustela nivalis</i>	1	400	S7, Bern, LBAP (ANG, BGW, CON, NEW, POW)
Hedgehog	<i>Erinaceus europaeus</i>	4	493	S7, Bern, LBAP (ANG, BGW, CON, GWY, NEW, POW, RCT, VOG)
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	3	521	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP (ANG, BBNP, CER, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRA, TRF, VOG), WS_P
Myotis Bat species	<i>Myotis</i>	2	521	EPS, HDir, WCA5, Bern, LBAP (ANG, DEN, SNP, TRA, TRF)
Greater Horseshoe Bat	<i>Rhinolophus ferrumequinum</i>	2	521	EPS, AnII, HDir, WCA5, S7, Bern, RDB2(UK), LBAP (ANG, BBNP, CER, CLY, CRM, DEN, MON, PEM, POW, SNP, TRA, TRF, VOG), WS_P
Lesser Horseshoe Bat	<i>Rhinolophus hipposideros</i>	2	521	EPS, AnII, HDir, WCA5, S7, Bern, RDB2(UK), LBAP (ANG, BBNP, CLY, CON, CRM, DEN, GWY, MON, PEM, POW, SNP, TRA, TRF, VOG, WRE), WS_P
Noctule	<i>Nyctalus noctula</i>	1	535	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP (ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, TRF, VOG), WS_P

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status
Brown Long-eared Bat	<i>Plecotus auritus</i>	2	535	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP (ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, TRF, VOG), WS_P
Grey Squirrel	<i>Sciurus carolinensis</i>	2	740	WCA9, INNS
Bat	Chiroptera	2	804	EPS, WCA5, LBAP (ANG, DEN, RCT, SNP, TRA, TRF)
Harvest Mouse	<i>Micromys minutus</i>	1	915	S7, LBAP (CON, GWY, VOG), LI(BIS), WS_P
Amphibians				
Great Crested Newt¹⁰	<i>Triturus cristatus</i>	2	625	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP (ANG, BBNP, CLY, CON, DEN, MON, POW, SNP, TRA, TRF, VOG, WRE), WS_P
Palmate Newt	<i>Lissotriton helveticus</i>	2	909	WCA5, Bern, LBAP (ANG, CLY, CON, DEN, POW, TRA), LI(BIS), WS_C
Amphibian	Lissotriton	1	909	WCA5
Common Frog	<i>Rana temporaria</i>	1	922	HDir, WCA5, Bern, LBAP (ANG, CLY, CON, POW, TRA), WS_C
Reptiles				
Common Lizard	<i>Zootoca vivipara</i>	1	915	WCA5, S7, Bern, LBAP (ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, TRF, VOG), WS_C
Invertebrates				
a hymenoptera n	<i>Crossocerus distinguendus</i>	1	371	RDB2 (UK) - NA
a beetle	<i>Oxystoma cerdo</i>	12	371	RDB2 (UK) - NB, LI(BIS)
Harlequin Ladybird	<i>Harmonia axyridis</i>	4	371	INNS
Common Carder Bee	<i>Bombus pascuorum</i>	2	371	LBAP(MTR)
Small Blue	<i>Cupido minimus</i>	1	436	WCA5, S7, RDB1(UK) - NT, LBAP (CON, PEM, VOG), LI(SEWBrEC), WS_P

¹⁰ Record for Great Crested Newt from 1966 and 2011

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status
Marsh Fritillary	<i>Euphydryas aurinia</i>	15	653	HDir, WCA5, S7, Bern, RDB1(UK) - VU, LBAP (ANG, BBNP, CER, CON, CRM, GWY, PEM, POW, SNP, TRA, VOG), LI(SEWBRcC), WS_P
Dingy Skipper	<i>Erynnis tages</i>	3	676	S7, RDB1(UK) - VU, LBAP (BGW, CON, GWY, SWN, VOG), LI(SEWBRcC), WS_P
Heath Bumblebee	<i>Bombus jonellus</i>	2	676	LBAP(MTR)
Buff-tailed Mining Bee	<i>Andrena humilis</i>	2	676	RDB2 (UK) - NB
Red-tailed Bumblebee	<i>Bombus lapidarius</i>	3	676	LBAP(MTR)
Early Bumblebee	<i>Bombus pratorum</i>	1	690	LBAP(MTR)
Small Garden Bumblebee	<i>Bombus hortorum</i>	1	690	LBAP(MTR)
Buff-tailed Bumblebee	<i>Bombus terrestris</i>	3	767	LBAP(MTR)
Small Heath	<i>Coenonympha pamphilus</i>	1	915	S7, RDB1(UK) – VU, RDB1(UK) – NT, LBAP (GWY, VOG), WS_C
Botanical <i>(flowering plants, fungus, lichen & moss)</i>				
Japanese Knotweed	<i>Reynoutria japonica</i>	7	91	WCA9, INNS
Viper's-bugloss	<i>Echium vulgare</i>	5	187	LBAP (BGW, GWY), LI(SEWBRcC), LI(VC47), LI (VC48, LS), LI (VC49, LS), LI (VC50, LS), LI (VC51, LS), LI (VC52, LS), WS_C
Snowberry	<i>Symphoricarpos albus</i>	1	367	INNS
Wall Cotoneaster	<i>Cotoneaster horizontalis</i>	2	413	WCA9, INNS
Parrot Waxcap	<i>Gliophorus psittacinus</i>	2	436	LBAP (CDF, DEN, GWY), CHEGD
Butterfly-bush	<i>Buddleja davidii</i>	2	466	INNS
Wintergreen	<i>Pyrola rotundifolia</i>	1	551	LBAP (ANG, NPT), LI(SEWBRcC), LI (VC50, LR), WS_C
Meadow Coral	<i>Clavulinopsis corniculata</i>	1	576	CHEGD
Oily Waxcap	<i>Hygrocybe quieta</i>	1	576	LBAP (CDF, DEN, GWY), CHEGD
Scarlet Waxcap	<i>Hygrocybe coccinea</i>	1	576	LBAP (CDF, DEN, GWY), CHEGD
a fungus	<i>Entoloma</i>	2	625	CHEGD

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status
Vermilion Waxcap	<i>Hygrocybe miniata</i>	1	673	LBAP (CDF, DEN, GWY), CHEGD
Persistent Waxcap	<i>Hygrocybe acutoconica</i> var. <i>acutoconica</i>	1	673	LBAP (CDF, DEN, GWY), CHEGD
Meadow Waxcap	<i>Cuphophyllus pratensis</i> var. <i>pratensis</i>	1	675	LBAP (CDF, DEN, GWY), CHEGD
Betony	<i>Betonica officinalis</i>	1	675	RDB1(UK) - VU, LI(VC47)
Blackening Waxcap	<i>Hygrocybe conica</i>	1	719	LBAP (CDF, DEN, GWY), CHEGD
Apricot Club	<i>Clavulinopsis luteoalba</i>	1	725	CHEGD
a lichen	<i>Coenogonium luteum</i>	2	740	RDB1(Wales) - NT, LI (VC42, N)
Annual Beard-grass	<i>Polypogon monspeliensis</i>	1	816	RDB2 (UK) - S
Stinking Hellebore	<i>Helleborus foetidus</i>	1	819	RDB2 (UK) - S, LBAP (CON, DEN), LI(SEWBrEC), LI(VC47), LI (VC51, LS), LI (VC52, LS), WS_C
Heath Star Moss	<i>Campylopus introflexus</i>	1	862	RDB1(Wales) - NN, INNS
Soft Downy-rose	<i>Rosa mollis</i>	1	862	LI(SEWBrEC), LI(VC43), LI(VC47), LI (VC48, LS), WS_P
Chalk Comb-moss	<i>Ctenidium molluscum</i>	1	889	RDB1(Wales) - DD, LBAP(CON), LI(WWBIC), LI (VC41, LR), LI (VC44, LR), LI (VC46, LR), LI (VC47, LR), LI (VC48, LR)
Green Field-speedwell	<i>Veronica agrestis</i>	1	890	LI(SEWBrEC), LI (VC48, LS), WS_C
Nail Fungus	<i>Poronia punctata</i>	1	915	S7
Goldenrod	<i>Solidago virgaurea</i>	2	915	RDB1(UK) - VU, LI(VC47)
Purple Crystalwort	<i>Riccia beyrichiana</i>	2	928	RDB1(Wales) - LC, LI(WWBIC), LI(VC41, LR), LI(VC43, LR), LI(VC44, LR), LI(VC45, LS), LI(VC46, EX), LI(VC48, LR), LI(VC49, LR), LI(VC52, LR)
Bent Crisp-moss	<i>Tortella inclinata</i>	3	941	RDB1(Wales) - NT, LI(VC41, LR), LI(VC44, EX), LI(VC45, EX), LI(VC48, LR), LI(VC52, LR)
Devil`s-bit Scabious	<i>Succisa pratensis</i>	1	989	RDB1(UK) - VU, LI(VC47)

English Name	Scientific Name	No. of records	Closest Distance (m)	Legal / Conservation Status
Bluebell	Hyacinthoides non-scripta	1	989	WCA8, LBAP(ANG, CLY, CON, SNP, TRA, TRF)
Hairy Whitlowgrass	Erophila majuscula	1	989	LI(SEWBRcC), LI(VC43), LI(VC47), LI(VC49, LR), LI(VC50, LR), LI(VC52, LS), WS_P
Himalayan Balsam	Impatiens glandulifera	1	999	WCA9, INNS

Appendix B

Target Notes

Target Note Number	Target Note Description	Photograph
TN 1	snowberry	

Appendix C

Site Photographs



Photo 1 – Site arrangement – Streetview (2022)



Photo 2 – Site arrangement – Streetview (2011)



Photo 3 – Site arrangement – satellite (2001)



Photo 4 – Site arrangement – satellite (2021)



Photograph 7 – Hedgerow



Photograph 8 – bare ground (formerly scrub)



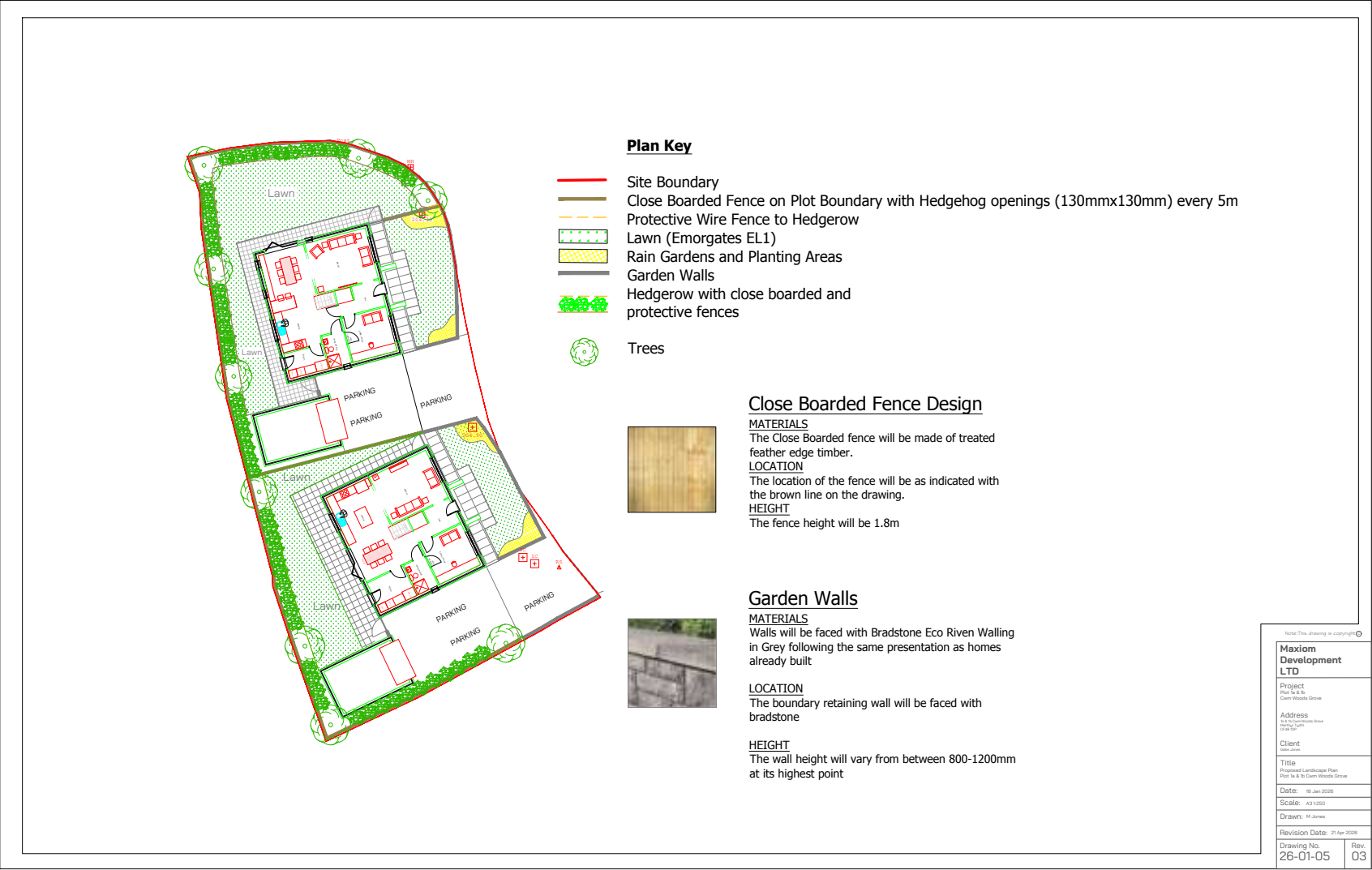
Photograph 9 – ruderal



Photograph 10 – hard standing

Appendix D

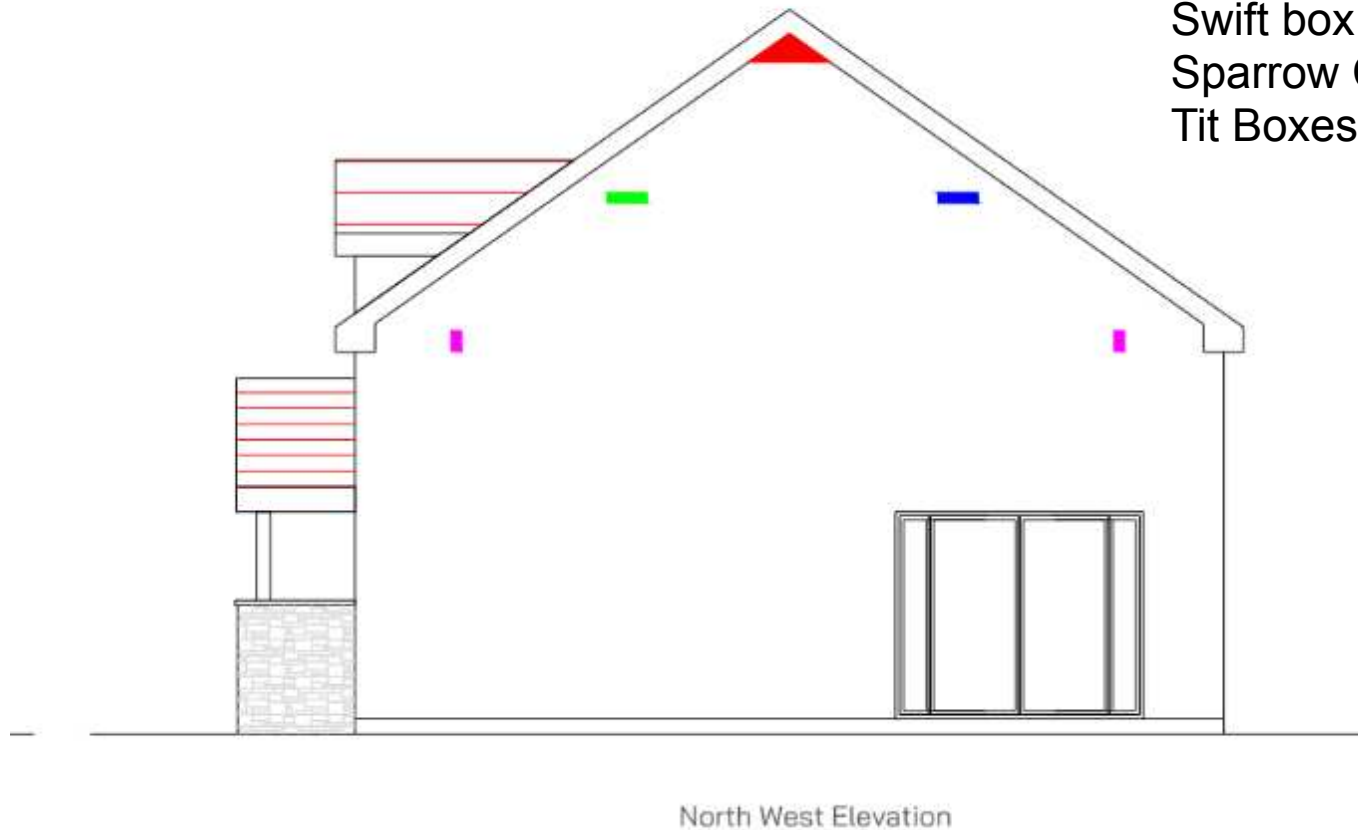
Landscape Plan



Appendix E

Bat / Bird Box Locations

Wildlife Housing - Key
Bat box (Red)
Swift box (Green)
Sparrow Crevices (Blue)
Tit Boxes (Magenta)



Appendix E - Continued

Wildlife Housing Specifications

Type	Link	Image	Key Colour on plans
Bat Boxes	https://www.wildcare.co.uk/vivara-verona-built-in.html		Red
Swift Box	https://www.wildcare.co.uk/vivara-pro-rendered-woodstone-build-in-swift-box.html		Green
Sparrow Box	https://www.wildcare.co.uk/vivara-pro-woodstone-sparrow-nest-box.html		Blue
Tit Box	https://www.wildcare.co.uk/vivara-pro-woodstone-oval-nest-box.html		Magenta