Title	**Proposed Residential Dwelling adjoining Bryn Y Groes, Nantyr, Llangollen, LL20 7BU – Walkover Survey & Biodiversity Statement**
Date issued	**17th December 2024**
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Reviewed by	**Tom Knight**
Client	**Andrew Design Service**
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1 Introduction

Background

1.1 This report presents the findings of an ecology walkover survey of land adjoining Bryn Y Groes, Nantyr, Llangollen, LL20 7BU. The walkover survey was required to consider whether there may be any ecological constraints due to the proposed construction of a residential dwelling at approximate NGR 320522, 339385. Bryn Y Groes comprises a farmstead with associated agricultural land in a rural landscape, approximately 2.7 km to the southwest of Llangollen.

1.2 A Biodiversity Statement is also provided. As such this report includes the following:

1. A description and assessment of the existing habitat/ (potential) protected species to be impacted by the proposed residential dwelling.
2. Potential ecological constraints and recommendations.
3. Identification of locations and opportunities for potential ecological enhancements.
4. Demonstration of how net benefit for biodiversity (and ecosystem resilience) will be secured and maintained. Full details of the recommended ecological enhancements.

1.3 A planning application is to be submitted to Wrexham County Borough Council (WCBC) for which this report would provide supporting information. Consultation has been sought with Emma Broad (WCBC's Ecology and Biodiversity Officer) to agree the approach[1] and inform this report[2].

2 Methodology

Walkover Survey

2.1 The walkover survey focused on the footprint of the proposed dwelling as indicated on (an earlier draft of) an Andrew Design Service pdf plan File ref: PL02 BLOCK PLAN 16.12.2024 (hereon referred to as the 'survey site'), along with land within an approximately 30 m buffer (hereon referred to as the 'wider survey site'). Immediately adjacent land was viewed from access boundaries where this was deemed relevant. The survey site extends to approximately 0.07 hectares and, along with the wider survey site, is indicated on *Figure 1* appended to this report.

2.2 The existing land use afforded by the survey site comprises a small part of a poor semi-improved agricultural field (used for livestock grazing), and a short length of hedgerow (which continues into the wider survey site). The wider survey site is also dominated by the

[1] The walkover approach was confirmed as acceptable by email dated 05/09/24.
[2] The NBB recommendations as included within this document have been agreed in principle by emails on 02/12/24.

agricultural field, but also includes hedgerows, road/ trackside verges, a dry ditch, buildings/ amenity grassland/ hard-standing (associated with the farmstead), and a small area of coniferous plantation woodland (part felled).

2.3 The walkover survey involved walking the survey/ wider survey sites making notes on the habitat/ vegetation and assessing the potential for protected or other priority/ notable species to be present. It was undertaken on 24th October 2024 by Max Ellson of Marches Ecology. The weather was initially 75% cloudy, becoming clear with a moderate breeze.

2.4 The MAGIC[3] website has been consulted to determine whether there are any statutory protected sites close to the survey site and that may have implications for the proposed development. No information on non-statutory protected sites has been obtained as part of this study.

Survey Limitations

2.5 No particular limitations were encountered during the walkover survey.

3 Proposed Development

3.1 The existing site and proposed development are indicated on a series of Andrew Design Service pdf plans as follows:

- File ref: PL01 LOCATION PLAN 26.11.2024.
- File ref: PL02 BLOCK PLAN 16.12.2024.
- File ref: PL03 SITE PLAN 16.12.2024.
- File ref: PL04 PLAN 16.12.2024.
- File ref: PL05 ELEVATIONS 16.12.2024.
- File ref: EAST GABLE - BAT & BIRD BOXES 16.12.2024.

3.2 The new dwelling will be located on the western edge of an agricultural field. The associated plot will extend to approximately 35 m (at most) into the field from the existing western boundary hedgerow. The dwelling itself will comprise a single elevation with external maximum dimensions of approximately 22 m by 10 m, and with approximate heights to underside verge bargeboards at ridge: main roof 5.2 m, and garage roof 4.2 m. Internally the dwelling will include: two bedrooms, an open plan living/ dining and kitchen area, a bathroom, a utility room and a double garage.

3.3 The plot will include a driveway/ parking area and lawns. It will be surrounded by a hedgerow (excluding a short length for a double gate to allow access into the field). An approximately 11 m length of existing hedge will be lost to facilitate access onto the adjacent track.

3.4 No further information is currently available.

4 Results

Statutory Protected Sites

4.1 The closest statutory protected sites (the boundaries of which are concurrent) are located approximately 925 m to the west of the survey site and comprise: Berwyn a Mynyddoedd de

[3] https://magic.defra.gov.uk/

Clwyd ~ Berwyn and South Clwyd Mountains Special Area of Conservation (SAC)/ Berwyn Special Protection Area (SPA)/ Berwyn Site of Special Scientific Interest (SSSI).

4.2 Annex I habitats which are given as a primary reason for selection of the SAC are: European dry heaths, Blanket bogs. The citation notes that '*Berwyn contains the largest stands of upland European dry heath....and supports the most extensive tract of near-natural blanket bog....in Wales*'. Annex I habitats which are listed as a qualifying feature (but not a primary reason for selection of the site) are: Semi-natural grasslands and scrubland facies or calcareous substrate, Transition mires and quaking bogs, Calcareous and calcschist screes of the montane to alpine levels, and Calcareous rocky slopes with chamasophytic vegetation. No Annex II species are listed.

4.3 The SPA citation lists species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC, as: Hen Harrier (*Circus cyaneus*), Merlin (*Falco columbarius*), Peregrine (*Falco peregrinus*), and Red Kite (*Milvus milvus*).

4.4 There are no other statutory sites within 1 km. The closest part of the River Dee/ Afon Dyfrdwy SSSI/ River Dee and Bala Lake SAC is located approximately 1.4 km to the south. There is no obvious/ direct hydrological link between the River Dee and the survey site.

Habitat and Flora

4.5 Target Note locations (numbered 1 and 2 for the survey site, 1a, 2a, 3, 3a, and 4 to 7 for the wider survey site, and 8 and 9 for immediately adjacent land) described in the text below are indicated on *Figure 1*; no separate target note descriptions are provided.

Survey Site

General

4.6 The survey site is dominated by a small part of a poor semi-improved agricultural field (used for livestock grazing) at *Target Note 1.* This extends into the wider survey site (and beyond). There is also a short section of a longer trackside hedgerow (*Target Note 2*) within the survey site.



General view of the survey site from immediately to the north.

Hedgerow

4.7 The trackside hedgerow at *Target Note 2* (a short length of which is located within the survey site) is fenced on the field edge. It is approximately 1.5 – 1.75 m high and wide and appears frequently managed (although not in the recent past). The woody shrub component is dominated by *Crataegus monogyna* (Hawthorn) with associates at low levels of abundance including *Ilex aquifolium* (Holly) and *Fraxinus excelsior* (Ash) saplings. *Rubus fruticosus* agg. (Bramble) is occasional throughout. The base layer appears to be eutrophic with abundant *Urtica dioica* (Common Nettle), frequent coarse-leaved grasses throughout and scattered ruderals. Characteristic hedge base plants appear limited to frequent *Geranium robertianum* (Herb-Robert) and lesser amounts of *Polypodium vulgare* (Polypody), *Dryopteris filix-mas* (Male-fern) and *Geum urbanum* (Wood Avens).

4.8 On the immediate opposite side of the hedge/ adjacent to the track there is the remains of a blockwork wall structure – this can be vegetated/ overhung by the hedge, and also is frequently collapsed, ranging from approximately 0.5 to 0.75 m high.



Hedgerow at *Target Note 2*; approximate extent of section within survey site.

Grassland

4.9 The poor semi-improved grassland field at *Target Note 1* appears to be frequently grazed (although no livestock were present at the time of the survey). The sward was largely to less than 0.05 m high, occasionally to 0.1 m. The sward is grass dominated, this largely comprising *Lolium perenne* (Perennial Rye-grass) with associates including *Cynosurus cristatus* (Crested Dog's-tail), *Holcus lanatus* (Yorkshire-fog), *Festuca rubra* (Red Fescue), *Agrostis capillaris* (Common Bent), *Agrostis stolonifera* (Creeping Bent) and *Poa annua* (Annual Meadow-grass). A range of characteristic (tall-) herbs/ forbs are scattered throughout at various levels of abundance, such as frequent *Trifolium repens* (White Clover), *Trifolium pratense* (Red Clover), and *Ranunculus repens* (Creeping Buttercup), occasional *Prunella vulgaris* (Selfheal), *Rumex acetosa* (Common Sorrel), *Ranunculus acris* (Meadow Buttercup), *Plantago lanceolata* (Ribwort Plantain), *Scorzoneroides autumnalis* (Autumn Hawkbit), *Cirsium arvense* (Creeping Thistle), *Achillea millefolium* (Yarrow), *Cerastium fontanum* (Common Mouse-ear), *Bellis perennis* (Daisy), and *Cardamine pratensis* (Cuckooflower), and less amounts of *Plantago major* (Greater Plantain), *Taraxacum* sect. *Ruderalia* (Common Dandelion) and *Rumex obtusifolius* (Broad-leaved Dock).

4.10 To the north of the survey site at *Target Note 1a* (within the wider survey site; refer below) the sward is locally damper/ with a different species-composition.



Poor semi-improved grassland field at *Target Note 1*; the existing farmstead is in the rear of the photo.

Wider Survey Site

General

4.11 The wider survey site is also dominated by the agricultural field at *Target Note 1* (also refer to *Target Note 1a*), with the hedgerow at *Target Note 2* also present. Another hedgerow (with associated trees) is located at *Target Notes 3*/ *3a*. Other features include road/ trackside verges (*Target Notes 2a* and *4*), a dry ditch *(Target Note 2a*), buildings/ amenity grassland/ hard-standing (associated with the farmstead – *Target Notes 5* and *6*), and a small area of coniferous plantation woodland (part felled) at *Target Note 7*.



Above and Below: general views of the wider survey site. Above, track/ trackside verges, with the metal agricultural shed associated with the farmstead on the LHS. Below, the damp grassland at *Target Note 1a*.



Hedgerow & Trees

4.12 The roadside hedgerow at *Target Note 3* is fenced on the field edge. It has similar dimensions *etc.* to that at *Target Note 2*. It continues outside of the wider survey site. Within the wider survey site, the woody shrub component is dominated by Hawthorn, with locally dominant *Prunus spinosa* (Blackthorn); other associates at low levels of abundance include Holly, *Sambucus nigra* (Elder), *Taxus baccata* (Yew), and *Rosa canina* agg. (Dog-rose). *Rubus fruticosus* agg. (Bramble) is occasional throughout. The base layer appears to be eutrophic with abundant Common Nettle, frequent coarse-leaved grasses throughout and scattered ruderals. Characteristic hedge base plants appear limited to frequent *Mercurialis perennis* (Dog's-Mercury) and lesser amounts of Herb-Robert and Male-fern.

4.13 At *Target Note 3a* (approximate location only) there are 2 no. mature Ash's trees within the hedge.

Grassland

4.14 At *Target Note 1a* the poor semi-improved grassland field is locally damp, with characteristic plants including *Juncus effusus* (Soft-rush), *Carex nigra* (Common Sedge), *Glyceria* sp. (a Sweet-grass), and *Juncus acutiflorus* (Sharp-flowered Rush). This resource is similarly grazed as the wider field.

Other Habitats

4.15 Other habitats within the wider survey site are restricted to:

- road/ trackside verges (largely species-poor and frequently mown/ disturbed) (*Target Notes 2a* and *4*),
- a dry ditch *(Target Note 2a*),
- buildings/ amenity grassland/ a single young Ash tree (associated with the farmstead – *Target Notes 5* (main farm house) and *6* (metal shed)),
- a small area of coniferous plantation woodland (part felled/ supporting a mosaic of tall-herbs and developing grassland with frequent young tree saplings) at *Target Note 7*,
- fences, and
- hard-standing.

4.16 The dry ditch at *Target Note 2a* is located in a narrow trackside verge, and is approximately 0.3-0.4 m wide and 0.2-0.4 deep. It can be locally damp at the base. It is fully vegetated/ hard to discern. The vegetation resources associated with the ditch/ verge are frequently similar – this being dominated by a range of common grasses, with associated (tall-)herbs/ forbs at various levels of abundance including Selfheal, Common Sorrel, *Lathyrus pratensis* (Meadow Vetchling), *Digitalis purpurea* (Fox-glove), *Centaurea nigra* (Common Knapweed), and *Heracleum sphondylium* (Hogweed).

Immediately Adjacent Land

4.17 *Target Note 8* comprises a narrow stand of woodland to the north of the (wider) survey site. *Target Note 9* comprises a small stand of coniferous plantation woodland to the south; there is also a roadside hedge here.

Flora

4.18 No plant species of note in the local context, or included on *Schedule 9* of the *Wildlife and Countryside Act 1981,* were recorded within the survey or wider survey sites, or immediately adjacent land.

Fauna

4.19 Only those species/ species groups that might reasonably be expected to be present at this location or potentially be affected by the proposed development are considered here.

Badger

4.20 No evidence of Badger (*Meles meles*) was recorded within the wider/ survey sites/ immediately adjacent land. Considering this lack of recorded evidence, along with the location/ character and current well-used (agricultural/ domestic) nature of the habitats present within the wider/ survey sites, the potential presence of Badgers (and or setts) at this location is deemed to be low.

Bats

Survey Site

4.21 The survey site comprises part of a larger agricultural grassland field, along with a frequently managed low trackside hedgerow. There are no potential bat roosting features.

4.22 The habitats offer minimal opportunities for foraging/ commuting bats, these being largely restricted to the resource provided by the hedgerow at *Target Note 2*: however, this does not provide a high/ sheltered flyway and is likely to be of limited potential value. It is however part of a hedgerow (and occasional (coniferous plantation) woodland) network in the immediate landscape.

Wider Survey Site

4.23 There are no potential roosting opportunities with approximately 10 m of the proposed development. Buildings or trees within the wider survey site which are outside of this distance (for example at *Target Notes 3a, 5* and *6*) were not assessed. Overall, the habitat resources provided by the wider survey site are again likely to be of limited potential value for foraging/ commuting bats.

Great Crested Newts

4.24 There is no aquatic habitat (suitable for breeding Great Crested Newts (*Triturus cristatus*)) within the survey or wider survey sites.

4.25 The terrestrial habitat resource provided by the survey site is dominated by frequently managed agricultural grassland which is of negligible/ low potential value for this species (although animals would be able to traverse across it). The base of the hedge/ associated wall at *Target Note 2* provides high potential value habitat. Similar resources are present in the wider survey site, with the base of the plantation woodland at *Target Note 7* also providing high potential value habitat. However, the potential presence of Great Crested Newts in terrestrial habitat is governed more by the proximity of a suitable breeding pond than by the quality of the terrestrial habitat.

4.26 An initial review of the OS map 1:25, 000 scale and relevant internet-based mapping including aerial photography[4] suggests that there are no waterbodies within approximately 250 m of the survey site. Taking this into account, along with author knowledge of the area, the likelihood of Great Crested Newts utilising terrestrial habitats within the survey site is

[4] https://www.google.co.uk/maps/@52.9471039,-3.1736385,2018m/data=!3m1!1e3?entry=ttu&g_ep=EgoyMDI0MTEwNi4wIKXMDSoASAFQAw%3D%3D

deemed to be negligible. As such this species will be discounted and will not be considered further in this report.

Reptiles

4.27 Given the habitats present and the perceived intensive levels of agricultural/ domestic use, the potential presence of reptiles within the (wider) survey sites is deemed to be negligible. As such this species group will be discounted and will not be considered further in this report.

Birds

4.28 Nesting opportunities within the survey site are limited to the hedge at *Target Note 2* (only part of which is within the survey site). Significantly greater opportunities are presented by habitats/ features within the wider survey site including those afforded by hedges, trees and built structures.

5 Potential Ecological Constraints and Recommendations

Introduction

5.1 The information provided in *Sections 1-4* of this report has been utilised to undertake a brief assessment of the potential ecological issues associated with the proposed development. Refer to *Appendix 1* for a summary of relevant species-specific legislation.

Statutory Protected Sites

5.2 The proposed development would not result in any direct impacts on any statutory protected sites. Due to the nature/ scale of the proposal, habitat within the survey site and location of the survey site, no indirect impacts are anticipated[5].

Habitats and Flora

5.3 Direct impacts (permanent or temporary) to vegetated habitats associated with the proposal will be limited to the loss of a short section (approximately 11 m) of hedgerow (*Target Note 2*), and a small area (approximately 0.07 ha) of poor semi-improved grassland (associated with an agricultural field) at *Target Note 1.* The grassland resource is considered to be of no more than site[6] value (due to its quality (disturbance *etc.*), and geographical location).

5.4 'Hedgerows' is a priority habitat listed on *Section 7* (of the *Environment (Wales) Act 2016*). This priority habitat covers all hedgerows consisting predominantly (*i.e*. 80% or more cover) of at least one woody UK species (Biodiversity Reporting & Information Group, 2011). The hedge at *Target Note 2* would qualify under this simplistic definition. It is also likely to fall under the definition of a hedgerow in the *Hedgerow Regulations 1997,* where a 'hedgerow' is a line of shrubs/ tree species usually managed as such. Based on the current level of survey information determining potential 'important' hedgerows in accordance with the 'ecological criteria' established in the *Hedgerow Regulations 1997*, cannot be undertaken. However, the hedgerow at *Target Note 2* is considered unlikely to be 'important' as its woody component is species-poor. Nonetheless, as this hedgerow connects to other similar

[5] Potential foul drainage/ sewerage impacts on the River Dee and Bala Lake SAC during the lifespan of the residential development are outside the scope of this report and should be dealt with separately within the planning submission as required.

[6] In accordance with CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

features (and ultimately woodland) in the wider landscape, and is therefore an integral part of a network/ wider resource, it is likely to be of local value. Loss of a short (approximately 11 m) section of this hedgerow is however not deemed to be a significant impact.

5.5 No further survey with regards habitat/ flora is deemed necessary. Recommendations provided below (under 'General Avoidance and Mitigation Measures') include for temporary fencing of retained hedgerow lengths at *Target Notes 2* and *3*.

5.6 The general advice contained in the Guidance for Pollution Prevention (GPP) leaflets produced by SEPA, EA and the Environment and Heritage Service (Northern Ireland) should be adhered to, particularly the following:

- GPP1: Understanding Your Environmental Responsibilities – Good Environmental Practices.
- PPG6: Working at Construction and Demolition Sites.

Biosecurity

5.7 As a precautionary approach, the implementation of basic/ standard best practice biosecurity measures[7] are recommended.

Badger

5.8 No particular impacts on Badger are envisaged at the current time.

5.9 If the development works are not initiated within 12 months of the walkover (*i.e.* October 2025), a pre-works check (for setts) should be completed by a suitability qualified ecologist. Up-to-date decisions can be made on any subsequent requirements, such as licensing, at that time.

Bats

5.10 No further consideration regarding potential (in)direct impacts to roosting bats is required.

5.11 Potential (negative) impacts to foraging/ commuting bats (from habitat loss, for example the loss of a short section of trackside hedgerow at *Target Note 2* which is of likely limited potential value) are deemed to be not significant, and no further survey or specific (additional) mitigation measures are considered necessary. As detailed in *Section 6,* approximately 77 m of hedgerow will be planted around the new plot, linking up with the retained hedgerow at *Target Note 2,* which will provide a continuous hedgerow corridor once established.

5.12 Assuming best practice measures with regards bats and any external lighting proposals are implemented, no potentially significant (in)direct impacts on any potential foraging/ commuting resources (for example the adjacent hedge) are envisaged to result from the proposal. Any external lighting should follow guidance included in Bat Conservation Trust and Institution of Lighting Professionals (2023)[8]. All external construction works should be completed in daylight hours only.

Birds

5.13 The destruction of any bird nests that are in use is illegal. The simplest option to avoid issues arising from the presence of nesting birds is to schedule work that affects nesting

[7] https://www.forestryengland.uk/sites/default/files/pdf/Biosecurity%20Policy.pdf
[8] Bat Conservation Trust and Institution of Lighting Professionals (2023). *Guidance Note 08/23. Bats and Artificial Lighting at Night*.

habitat (*e.g.*, clearance of hedge section at *Target Note 2*) outside the nesting period (March to August inclusive). Should any occupied nests be found during the construction phase, a buffer zone (determined on the basis of the species concerned and the location of the nest in the context of the surrounding vegetation, but no less than 5 m) would be retained until it can be ascertained that the chicks have left the nest. The buffer zone will be appropriately fenced and signed.

5.14 If it is not possible to clear the hedge section at *Target Note 2* outside the nesting season, these features should be subject to a check by a suitably qualified ecologist prior to commencement of works. If any active nests are found at this time, a buffer zone as detailed above would be provided.

General Avoidance and Mitigation Measures

5.15 The potential risks to the various ecological resources detailed in *Section 4* above are generally considered to be negligible. Given the nature of the survey site, likely scale and duration of the works, it is considered sufficient for a watching brief to be maintained by personnel throughout the works. As a precautionary approach the following general avoidance and mitigation measures should be adopted throughout preparatory/ construction phases:

1. Protection Measures for Retained Hedgerows. Due to the proximity of retained hedgerow lengths (particularly at *Target Note 2,* but also *Target Note 3*) it is recommended that temporary protective fencing (*e.g*., heras panels) is installed prior to the start of any works. This fencing should remain in place throughout the construction work. The aim of this fencing is to avoid inadvertent damage to this habitat. Site personnel should be made aware of the purpose of this fencing.
2. Nesting Bird Season. The avoidance measures as detailed above should be followed.

6 Enhancement Measures: Net Benefit for Biodiversity

Introduction

6.1 Technical Advice Note 5 (Nature Conservation and Planning) (Welsh Assembly Government, 2009)[9] and Wrexham County Borough Council (2011)[10] seek developments to achieve net biodiversity gain. The requirement to secure and maintain net benefit for biodiversity (NBB) (through enhancements) was reinforced in a letter issued by the Chief Planner (Welsh Government) to all planning departments in October 2019. NBB has been defined as '*the concept that development should leave biodiversity and ecosystems in a better state than before, through securing long term, measurable and demonstrable benefit, primarily on site*'[11].

6.2 This was reiterated in a letter from the Minister for Climate Change to the Heads of Planning dated October 2023. An Annex[12] attached to this letter provided text to update Planning

[9] Welsh Government (2009). *Planning Policy Wales - Technical Advice Note 5: Nature Conservation and Planning*. September 2009.
[10] Wrexham County Borough Council (2011). *Local Planning Guidance Note 32 Biodiversity and Development*. Adopted March 2011.
[11] https://www.gov.wales/targeted-policy-changes-planning-policy-wales-net-benefit-biodiversity-and-ecosystems-resilience
[12] *Annex to Heads of Planning Letter Dated 11 October 2023: Addressing the Nature Emergency through the Planning System: Updated National Planning Policy for Chapter 6 of Planning Policy Wales*.

Policy Wales (PPW), which has been adopted in PPW 12 (Welsh Government 2024[13]). . Chapter 6 of PPW was updated as of 11/10/23 (and is now included in PPW 12) which provides '*further clarity .... on securing net benefit for biodiversity through the application of the step-wise approach, including the acknowledgement of off-site compensation measures as a last resort, and, the need to consider enhancement and long-term management at each step*'.

6.3 WCBC (2011, *op. cit.*) lists '*examples of how enhancements could be achieved on development sites*'. The options provided include for '*planting native trees and shrubs of local provenance*', '*connecting existing habitats with species-rich hedgerows*', the '*provision of roosting opportunities for bats*', and '*bird boxes*'. CIEEM (2022) states that '*a key requirement is that the measures put forward are suitable in the local context of the site*'[14]. As such it is proposed to plant a small number of native trees, a new native species-rich hedgerow, install bird and bat boxes, and establish a 'flowering' lawn.

Assessment of Required Level of Provision

6.4 Construction of the new single residential dwelling can be categorised as a small/ low impact proposal. The development of this site would not result in a significant impact on any valued ecological resource at this location.

6.5 NBB provision '*should be proportional to the extent and impact of development* (CIEEM 2022, *op. cit.*). The proposed compensation/ enhancements will therefore target priority habitats (hedgerow (a priority habitat under *Section 7* of the *Environment (Wales) Act 2016*)), and priority species/ species of nature conservation interest likely to be present at the site (House Sparrow (*Passer domesticus*) and bats (House Sparrow and several species of bats are priority species listed on *Section 7*)).

Biodiversity Enhancement Recommendations

6.6 The locations of the proposed enhancements as detailed below are indicated on 2 no. Andrew Design Service pdf plans as follows (appended to this document):

- File ref: PL03 SITE PLAN 16.12.2024; and
- File ref: EAST GABLE - BAT & BIRD BOXES 16.12.2024.

6.7 Where possible planting will utilise native species of certified British origin and ideally local provenance (Local Seed Zone 304). All planting will be fenced off from livestock as required.

Hedgerow Planting

6.8 It is proposed to plant approximately 77 m of native species-rich hedgerow around the footprint of the new dwelling. As shown on File ref: PL03 SITE PLAN 16.12.2024. This will be provided partly as compensation for loss of the 11 m section required to facilitate access, and partly as an enhancement.

6.9 This resource will be planted as staggered, double rows with four to five plants per metre. A minimum of five native woody species will be planted to establish the hedgerow. It would be appropriate to source equal amounts of both the 'standard hedge mix' and the 'traditional hedge mix' from the Woodland Trust[15], and then intermix the saplings when planting. These

[13] Welsh Government (2024). *Planning Policy Wales*. Edition 12, February 2024.
[14] CIEEM (2022). *Welsh Government's Approach to Net Benefits for Biodiversity and the DECCA Framework in the Terrestrial Planning System. CIEEM Briefing Paper September 2022*. CIEEM, Romsey.
[15] https://shop.woodlandtrust.org.uk/hedge-mixes

two mixes include Hawthorn, Blackthorn, *Corylus avellana* (Hazel), *Malus sylvestris* (Crab Apple), Dog-rose, *Cornus sanguinea* (Dog-wood) and *Acer campestre* (Field Maple).

6.10 Bare-rooted forestry size transplants should be used with the individual plants being notch planted between November and March. They will be planted in accordance with the advice provided by the Woodland Trust[16]. The trees/ shrubs will need stakes and Rabbit guards.

Native Trees

6.11 Six native trees will be planted alongside an existing hedgerow to the north of the proposed residential dwelling (as shown on File ref: PL03 SITE PLAN 16.12.2024), comprising 2 no. of each of *Sorbus aucuparia* (Rowan), Holly and *Betula pubescens* (Downy Birch). Rowan and Holly are listed on the Royal Horticultural Society (RHS) guide to plants that are of value for pollinating insects[17].

6.12 These trees will be planted as '15 litre' sizes, between November and March in accordance with the advice provided by the supplier(s).

'Flowering' Lawn

6.13 As shown on File ref: PL03 SITE PLAN 16.12.2024, the lawn of the dwelling will be established/ sown with a 'flowering' lawn seed mix[18]. An appropriate example mix is Meadowmania '*British Native Meadow Wildflower Seeds for Meadow Lawns*'[19]. This mix contains 12 native species of wildflower and seven native grasses. It is designed to create a diverse lawn that can tolerate close mowing to a height of 5 cm for most of the year. The mowing should be stopped for a period during the summer to allow for flowering. Flowering can be from May to September but mowing does not need to be stopped for this entire period.

6.14 The seed should be sown in the spring (March-May) or the autumn (late August to October). Advice will be obtained from the supplier on ground preparation, how and when to sow. As it is a relatively small area it may be most appropriate to sow by hand. The recommended sowing rate is 4g/m^2.

Bat and Bird Boxes

6.15 The proposed boxes as detailed below will be installed under the direction/ advice of a suitably qualified ecologist to ensure correct installation. On installation the location of each box will be photographed, and a record kept accordingly.

6.16 3 no. boxes to be associated with the eastern elevation of the new dwelling are to be built-in/ integral. The box schedule proposed below has been developed in consultation with Andrew Design Service (and with regards bird boxes with due consideration of British Standard (BS) 42021:2022 (2023)[20]), in particular to ensure that the dwelling build standards are not negatively impacted (for example to avoid thermal bridging and water ingress). Boxes should, where possible, be at least 1 m apart, have unobstructed access, and not be sited above windows or doors. Where possible/ relevant, the specific installation/ design will

[16] https://www.woodlandtrust.org.uk/plant-trees/advice/how-to-plant/
[17] https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators
[18] Should sowing not be deemed practicable, turf can also be purchased/ installed, for example from https://www.turfonline.co.uk/product-category/wildflower-turf/
[19] https://meadowmania.co.uk/products/wildflower-meadow-for-lawns
[20] The British Standards Institution (2023). *BS 42021:2022 – Integral nest boxes – Selection and installation for new developments – Specifications. Incorporating Corrigendum No. 1*.

adhere to the principles as shown in BS 42021:2022. Further advice can be found in Gunnell, Murphy & Williams (2013)[21].

6.17 Three bat boxes are to be provided as follows:

- 1 no. Vivara PRO UK Build-in WoodStone Bat Box[22]. To be installed on the eastern elevation of the new dwelling, as shown on File ref: EAST GABLE - BAT & BIRD BOXES 16.12.2024. This integral box has been specifically designed to fit into the cavity of house walls, with the entrance sitting flush with the outside bricks. The top section is 50 mm deep. It is suitable for a variety of bat species.
    - This box type requires minimal maintenance.
- 2 no. Vincent Pro Bat Box[23], to be installed on existing mature trees to the north-west of the proposed dwelling, as shown on File ref: PL03 SITE PLAN 16.12.2024. This FSC timber box has been proven with seven UK species including Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared, Natterer's and Whiskered Bat.
    - These boxes in particular will be installed by/ under the direction of a suitably qualified ecologist to ensure correct installation.
    - The bat boxes will be sited on two different trees, no lower than 3 m from the ground (ideally between 3 m and 5 m), generally facing south, southwest or southeast wherever possible (so that they are not overly exposed). There should be no over-hanging branches/ other vegetation and there should be direct and easy access to the entrances.
    - This box type requires minimal maintenance.
- Generally, bat boxes should be located in the darkest area possible, away from artificial light sources. It is understood that there will be no external lighting installed on the east gable.

6.18 Two bird boxes are to be provided as follows:

- 2 no Vivara Pro WoodStone House Sparrow Nest Box[24]. To be installed on the eastern elevation of the new dwelling, as shown on File ref: EAST GABLE - BAT & BIRD BOXES 16.12.2024. This integral box has been specifically designed to fit into the cavity of house walls.
    - These bird boxes should be subject to checking/ cleaning out on an annual basis; refer below.

[21] Gunnell, K., Murphy, B. & Williams, C. (2013). *Designing for Biodiversity: A Technical Guide for New and Existing Buildings*. Second Edition. RIBA Publishing, London.
[22] For example, https://www.nhbs.com/build-in-woodstone-bat-box-uk-brick-size
[23] For example, https://www.nhbs.com/vincent-pro-bat-box
[24] https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box

Maintenance and Monitoring

6.19 The importance of securing long-term management/ maintenance and monitoring is central to the NBB approach (*e.g.,* CIEEM 2022, *op. cit.*). This should also be proportional to the scale and impact of the development.

All Planting

6.20 Once the trees and hedgerow have been planted, an area of at least 1 m^2 around them should be kept weed-free. This will be achieved either through the use of mulch mats or the appropriate application of glyphosate-based herbicides (such as Roundup) during the growing season. This maintenance operation should be undertaken once a year for the first 3 years. Watering may also need to be undertaken during establishment. Any losses will be replaced.

Native Trees

6.21 Once the tree resource is successfully established, no long-term management is likely to be required.

Hedgerow

6.22 The young plants within the hedgerow should be cut back in the first year to approximately one-third of their height to promote bushy growth.

6.23 A well-established hedge will require trimming from about the sixth year. Ideally maintained hedges should be shaped to be 1.8-2 m high and at least 1.8-2 m wide. In this instance, due it being a domestic hedge, it is however deemed acceptable to reduce this where necessary (to a minimum of 1.2 m high and wide) to allow views from the new dwelling to be maintained. Once established, the requirement for annual management should be reviewed. If possible, the top and sides of the hedgerow could be left uncut every other year (this can also be undertaken for individual/ shorter lengths on rotation). Otherwise cutting should be undertaken after January but before March. Once established the hedge should be laid every 10-30 years between mid-November and early March. The best time to lay the hedge would be when stem growth reaches between 5-10 cm diameters at the base.

Flowering Lawn

6.24 An appropriate management (mowing) regime should be initiated after the flowering lawn has become established. It is likely that a greater amount of management will be required during the establishment phase. Advice on appropriate management should be sought from the supplier.

Bat and Bird Boxes

6.25 The Sparrow boxes should be inspected annually and cleaned if necessary. This can be undertaken by the house occupants. All maintenance should be carried out when the last bird has left the nest-box; at least October. Nest-boxes should be cleaned in late-autumn (late October/ November). At least 2 to 3 weeks should be allowed after fledging before undertaking any cleaning. The *Wildlife and Countryside Act 1981*, as amended states that cleaning should only be carried out between 1st August and 31st January and that any eggs present should be destroyed immediately. All nest material should be completely removed and disposed of safely along with any other debris. To ensure that parasite build-up is controlled the inside of the nest-box should be cleansed with boiling water. Care should be

taken when opening nest-boxes as it is possible that they could be inhabited by bees, wasps or even bats.

6.26 It is important to remember that once discovered, a bat roost is legally protected and must not be disturbed. If a bat roost is suspected to be present a suitably qualified bat consultant or the Clwyd Bat Group[25] should be contacted and may need to undertake the annual maintenance operations detailed above.

6.27 To discover whether a bat-box is being used they can be watched at dusk during the summer to see if any bats emerge or a search can be conducted beneath the box entrance for the characteristic crumbly bat droppings. Again, should it be necessary to inspect the bat-box an appropriately licensed individual may be required to undertake this work. Occasionally a bat-box may be used by nesting birds. If this is the case it should be cleaned (if accessible) as per the procedure outlined above.

6.28 The proposed bat boxes do not require annual maintenance (cleaning out). However, it is good practice in late autumn to early spring, to carefully brush the entrances and to remove any build-up of dust, dirt or cobwebs that could block the openings.

6.29 The use of any of the bird boxes should be recorded during the nesting season (March to August inclusive). Where possible a record should be maintained of which bat boxes have been utilised and by what species. Records of nesting birds/ bats should be submitted to Cofnod[26] (the Local Environmental Records Centre for North Wales).

7 Appendix 1

Introduction

7.1 The species-specific legislation below is presented here due either to the actual or suspected/ possible presence of each species on the site or within the zone of influence and is therefore considered to be relevant for this study.

7.2 This sub-section provides a brief summary of key relevant species legislation. It should not be considered a comprehensive review and is not meant to be so. It is provided here for information only and is not intended to replace specialised legal advice. It does not replace the text of the legislation, but summarises the salient points.

Badger

7.3 The Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended). The legislation affords protection to Badger and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

Bats

7.4 All species of British bat are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. They are also listed as European

[25] http://www.clwydbatgroup.com/
[26] https://www.cofnod.org.uk/Home

Protected Species on *Schedule 2* of *The Conservation of Habitats and Species Regulations 2017* which gives them full protection under *Regulation 42(1)*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRoW Act 2000).

7.5 Under the above legislation it is an offence to intentionally or recklessly:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

7.6 Several species of bat are included on *Section 7* of the *Environment Act 2016*.

7.7 All species of British bat are also protected under *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended). This protection relates specifically to trapping and direct pursuit of the species.

Birds

7.8 All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the *CRoW Act 2000*.

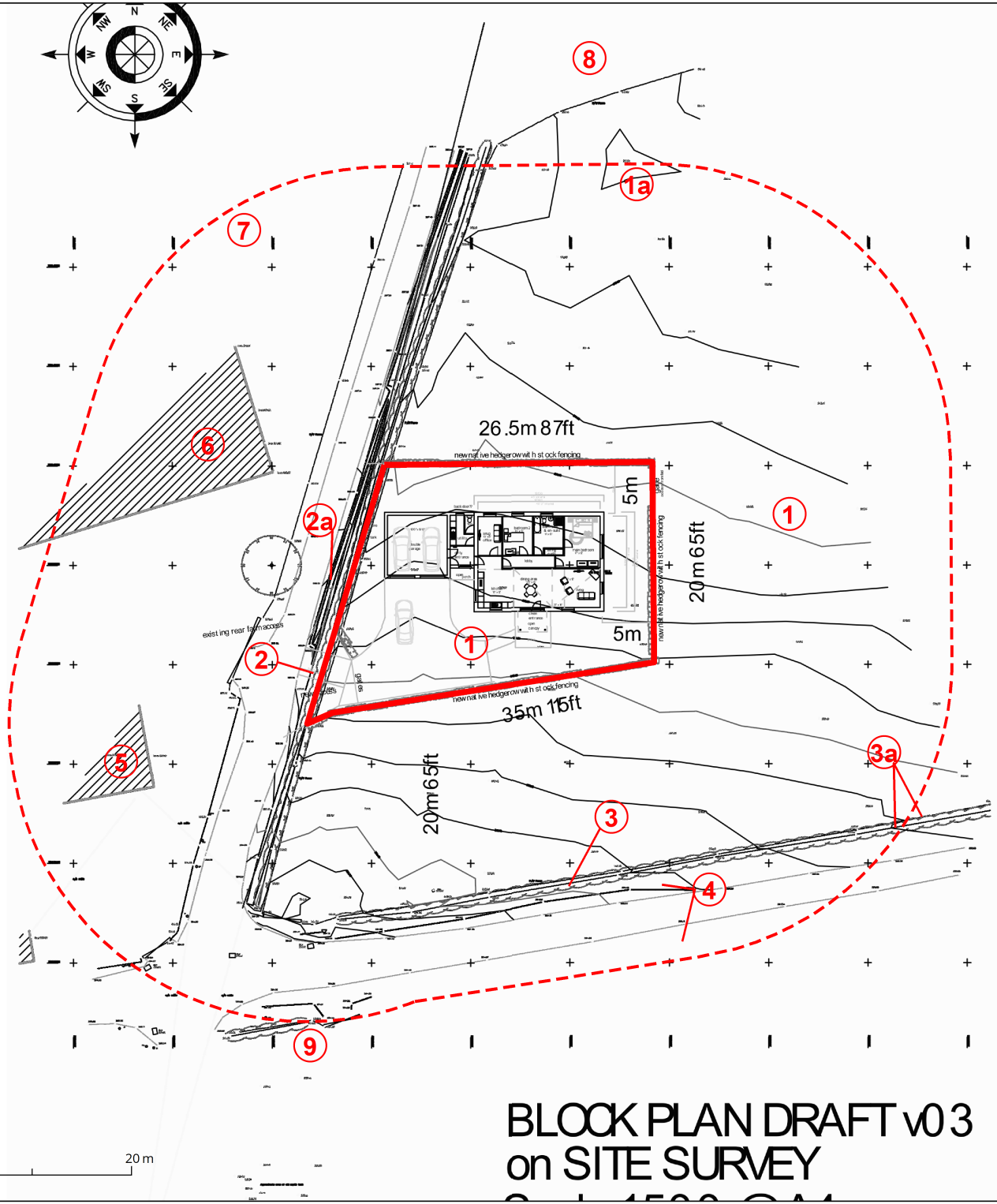
7.9 The legislation makes it an offence to intentionally or recklessly:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

7.10 Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The legislation confers special penalties where the above mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

- disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or
- disturb the dependant young of such a bird.

7.11 *Section 7* of the *Environment Act 2016* includes several birds.



Survey Site

Wider Survey Site
Approximate 30 m buffer

Target Note

BLOCK PLAN DRAFT v03
on SITE SURVEY

C556 Proposed Residential Dwelling adjoining Bryn Y Groes, Nantyr, Llangollen, LL20 7BU - Walkover Survey & Biodiversity Statement

***Figure 1* - Target Notes**

Date: 10/12/2024

marches ecology

www.marchesecology.co.uk

Base mapping provided by the client.

PL03 SITE PLAN 16.12.2024

2no. new bat boxes
on existing trees
at rear of steel barn building

6no. new trees
ROWAN HOLLY BIRCH
with stock fencing
protection from livestock

existing hedge

ALLT Y BADI

26.5m 87ft
new native hedgerow with stock fencing

flowering
grass lawn

5m

gate
access from field

20m 65ft
new native hedgerow with stock fencing

oil tank
log store
W.C
utility
double garage
19'6" x 19'6"
snug
13' x 8'
office
bedroom 2
13' x 10'
bathroom
& en-suite
11' x 10'
airing cup'd
main bedroom
17' x 12'
lobby
dirty entrance
open porch
FFL 386.65
dining area
13' x 13'
kitchen
13' x 12'
living
13' x 12'
13' x 16'
clean entrance
open canopy
patio
flue or chimney
log burner

visibility splay
ditch
existing hedge

existing rear farm access

parking & turning
rolled stone or gravel
porous surfacing

gates

new access
hard surfaced
(tarmac or similar)

flowering
grass lawn

5m

new native hedgerow with stock fencing

35m 115ft

20m 65ft

ALLT Y BADI

visibility splay
existing hedge

exisiting field entrance

New Dwelling adjacent to Bryn Y Groes,
Llangollen LL20 7BU

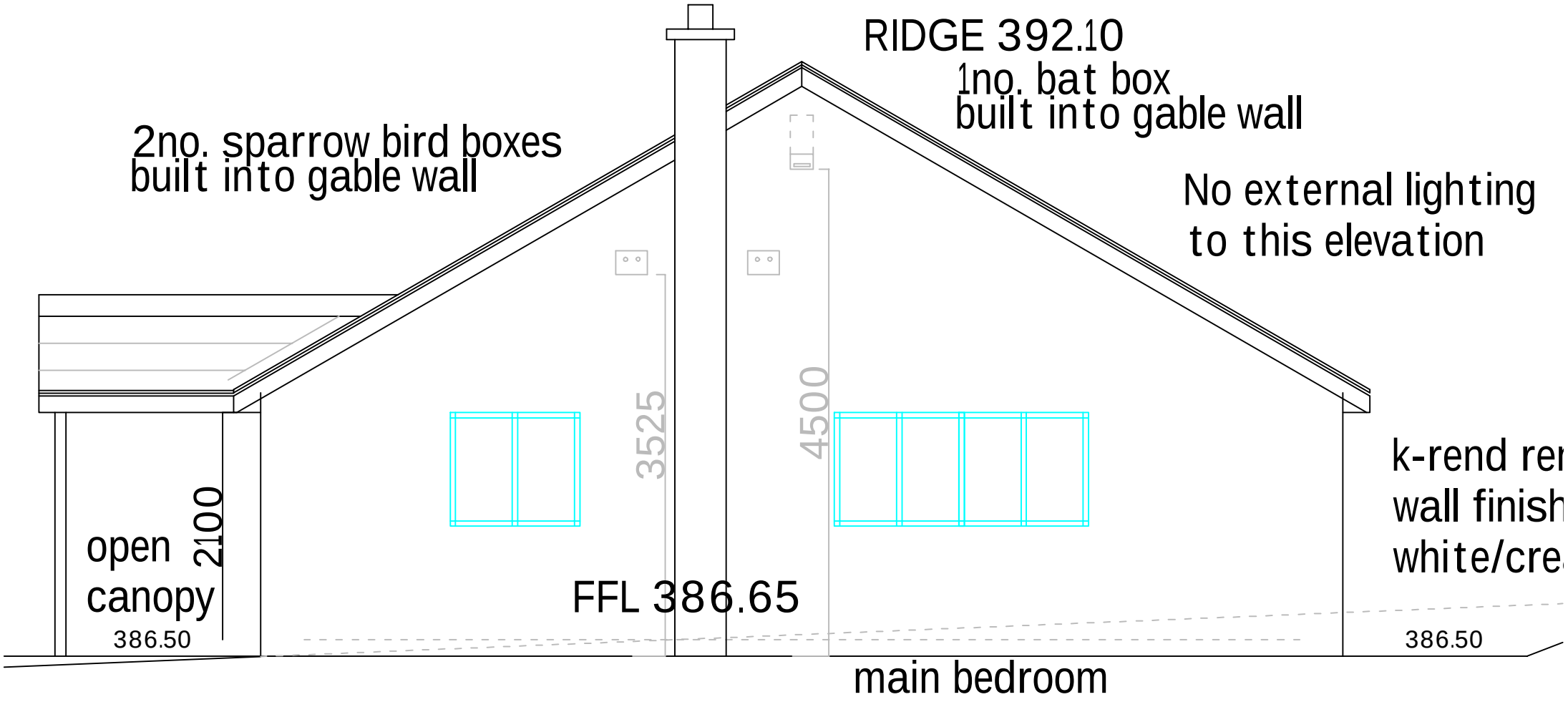
SITE PLAN PL03

Scale 1:200 @ A3

16/12/2024

EAST GABLE - BAT & BIRD BOXES 16.12.2024

New Dwelling adjacent to Bryn Y Groes,
Llangollen LL20 7BU



EAST GABLE END - BAT & BIRD BOXES
ELEVATION PL06

16/12/2024

Scale 1:50 @ A4