Arboricultural Impact Assessment

Land at
Tall Timbers
Pistyll Hill
Marford
Wrexham

Ref:
BNG/TTM/06/25

Date:
5th June 2025

Commissioned by:
Mr F. Davies

Prepared by
S. Shields

Shields Arboricultural Consultancy
T: **01691 657189**
M: **07989 626923**
Email: info@shieldsac.co.uk
59 Oakhurst Road Oswestry Shropshire SY11 1BL

Institute of Chartered Foresters
Registered Consultant

Shields Arboricultural Consultancy
Ref: BNG/TTM/06/25
Date 5th June 2025

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Biodiversity Benefit Assessment

Tall Timbers
Pistyll Hill
Marford

.

This report, including appendices and attached plans, is the property of Shields Arboricultural Consultancy and is issued for the sole use of the client as identified in section 1.1 on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the written consent of Shields Arboricultural Consultancy. Ordnance Survey material is used with permission of The Controller of HMSO, Crown copyright 0100031673.

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Contents

1.0 Instruction & Introduction
2.0 Scope & Limitations
3.0 Statutory Controls & Obligations
4.0 Site Description
5.0 Baseline Assessment
6.0 Evaluation
7.0 Arboricultural Method Statement

Appendix A
Site Plans

Date	Revision	
5th June 2025		Issued for planning

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Instruction & Introduction

1.1 Shields Arboricultural Consultancy received instructions from Mr F. Davies to undertake a biodiversity and green infrastructure assessment at the above property.

1.2 A planning application has been prepared seeking to develop the site to extend the existing dwelling following the demolition of garages and outbuildings. A site plan ref: 25-09 A101 Rev A has been provided and is considered in this assessment.

Scope & Limitations

2.1 A Green Infrastructure Statement is required on all developments, following Planning Policy Wales - PPW12 and the *Environment (Wales) Act 2016 Section 6 duty,* to show that development has a net benefit to biodiversity and green infrastructure. This survey was undertaken 20th May 2025 by S. Shields, principle Arboriculturalist for Shields Arboricultural Consultancy.

Desk-based Study

2.2 A data request through the local environmental records centre was not undertaken as the site is small, the habitats that will be impacted are limited and it is very unlikely that the records obtained would impact the site assessment and mitigation proposed. Any species-specific historic records are detailed within the relevant species accounts in the Results section.

Baseline Habitat Assessment

2.3 The survey methods were based on the UK Habitat Classification approach (https://ukhab.org, updated January 2021), which is a standardised method to survey main habitat types in the UK. Plant nomenclature in this report follows Rose (Revised Edition 2006) for native, naturalised and garden varieties of vascular plant. Introduced species and garden varieties are not always identified.

Statutory Controls & Obligations

3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. Natural Resources Wales has the responsibility for enforcing the Forestry Act.

3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

or order) to undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.

3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Site Description

4.1 The proposed development site comprises a private residential dwelling set within its own garden on Pistyll Hill, Marford. The surrounding area is residential in character, predominantly made up of individual dwellings situated on generously sized plots. The site itself extends to approximately 1,425m², lies at an elevation of 67m AOD (Above Ordnance Datum), and features a level, even topography. It shares boundaries with neighbouring residential properties to the north, east, and west, while the southern boundary fronts the highway. Vehicular access is gained via a private driveway leading from the highway.

4.2 The existing dwelling is centrally positioned within the site, with associated garages and outbuildings located to the west. An area of hardstanding is present to the front (south-west), providing parking and access, while garden areas are situated to the south-east and to the rear (north) of the property. The site is enclosed by hedging along all boundaries, with several specimen trees positioned adjacent to the northern boundary.



T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Soils

4.4 The site soils appear to be free draining with no indication of waterlogging. Geological maps indicate a superficial deposit of sand and gravel over sandstone.

*NB. This soil assessment is undertaken in situ using visual and manual techniques and is **only** for the purpose of establishing the influence of site soils on tree growth. The assessment **must not** be relied upon to inform any engineering decisions.*

Baseline Assessment

Designated Sites

5.1 No designated sites were identified within 500m of the site. No protected species were identified on the site.

5.2 UK Habitats Classification was used to record habitat types within and immediately adjacent to the proposed development site. These habitats are listed below and shown in figure 2.

- Built linear features (buildings)
- Developed land; sealed surface
- Vegetated garden
- Hedgerow
- Scattered rural/urban trees



Figure 2

Institute of Chartered Foresters
Registered Consultant

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

5.3 Site Photos – view of the existing dwelling, outbuilding and garage along with boundary hedge and trees.



Figure 3

Rear Garden



Figure 4

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Rear Garden, Dwelling & Outbuilding



Figure 5

Front Garden and Boundary Hedge



Figure 6

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Front Garden and Boundary Hedge



Figure 7

Rear Garden, Trees and Boundary Hedge



Figure 8

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Biodiversity Baseline Summary

5.6 The red line development area totals 1425m^2 ha with 141m of hedgerow. Individual area sizes per habitat were measured during the 2025 survey when habitat borders were defined and mapped. A summary of the habitats present on site, current habitat condition scores and their total area size (per habitat) in m^2 can be seen in the table below. Full details in Green Infrastructure Statement (appendix A)

Habitat Type	Condition	Area M^2
Built Linear Feature - Building	N/A	165
Developed Land – Sealed Surface	N/A	515
Vegetated Garden	Fair	735
Individual Trees	Good	5no.
Hedgerow	Fair	30 (L. 141m)

Evaluation

Summary of Proposed Development

6.1 The proposed development would see the demolition of the garage and outbuildings with the construction of new extensions to the existing house. The majority of the work would be within the footprint of the existing buildings and hard surface area with a minor encroachment into the grass garden area. All trees and hedges are to be retained and are protected to the requirements of BS5837: 2012.



Site Layout Plan

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

Habitats Impacts and Mitigation

6.2 The development would directly affect areas of sealed surface and vegetated garden. The existing trees and hedgerows would be retained.

Habitat Creation

6.3 To provide a biodiversity enhancement it is proposed to provide one sparrow terrace nesting box RSPB Sparrow terrace nest box - Bird houses & nest boxes on the north elevation of the new extension and plant one Field Maple (Acer campestre 'Elsrijk') light standard tree.

Species / Planting Stock Selection

6.4 Selected species must be capable of becoming attractive, long-lived specimens that can tolerate the prevailing site conditions. It is proposed to plant one Field Maple (Acer campestre 'Elsrijk') light standard tree. The tree must be selected and planted in accordance with the following specifications. It is preferable that the tree is inspected and selected in the nursery prior to delivery on site.

6.5 *Planting Stock Specification*

Species	Shape	Stem Girth @1m	Height	Container Volume	Production Method
Field Maple	*Light Standard*	*6cm – 8cm*	*2.0m – 2.5m*	*25 lts.*	*Container grown*

6.6 The tree and planting material must be supplied packed in accordance with the recommendations of BS 8545: 2014. The tree must be delivered in good condition and be free from damage, if transported in open lorries, trees must be protected by opaque sheeting. Root systems must be moist and protected during transport and. The tree should be inspected and approved prior to accepting delivery. If planting is not undertaken immediately after delivery, the tree should be placed in a sheltered location and the container covered with sand to prevent drying or freezing. The tree will be inspected on delivery in accordance with the standards set out in table 1 BS 8545: 2014. Trees that do not meet the standard will be rejected and returned to the nursery.

6.7 The tree is to be pit planted in the location identified on the BNG plan. The tree is to be staked and the planting site kept weed free and the tree watered until established. Hedging is to be planted in a double off-set row at 50cm x 50cm centres.

Tree Protection Arboricultural Method Statement

7.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.

7.2 This document should be read in conjunction with Tree Protection Plan ref: TTM-BNG-06-25.

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

7.3 Copies of the TPP & the AMS must be available on-site and all tree protection requirements explained to all persons undertaking activities on the site during the site induction process.

7.4 All tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any construction works or demolition or any arboricultural works. The LPA must be informed in writing once the tree protection measures are installed.

7.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections (see 9.17).

7.6 All measurements are given in metric using standard abbreviations.

Fencing and Ground Protection

7.7 The TPP indicates the position of all protective fences and ground protection.

7.8 Protective fencing will comprise herras fencing securely fixed or as agreed with the Local Planning Authority.

7.9 Ground protection is not required.

7.10 The protective fencing must be inspected on installation and will remain in place until completion of the construction phase and then only removed with the consent of the LPA.

7.11 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

General Precautions

7.12 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10m of the trunk of a tree that is to be retained or within any part of the CEZ. Spills kits, suitable for the type fluids, fuels and chemicals stored on site must be available on site and site operatives must have training in their use.

7.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.

7.14 Storage and mixing areas, contactor parking and all site huts must be outside the CEZ.

7.15 Access to the work area is via the main site entrance and must not traverse the CEZ.

7.16 All service and drainage routes, below or above ground must avoid the CEZ. All services are to be installed in accordance with NJUG volume 4 Guidelines.

7.17 To ensure that all tree protection measures are properly installed and maintained the site shall be monitored by Shields Arboricultural Consultancy to the following schedule. Details of the findings and

T 01691 657189
M 07989 626923
Email: info@shieldsac.co.uk

photographic evidence of the site inspection visits will be reported to the LPA by email within 24 hrs of the visit. All tree protection measures must remain in place until development work is completed and only removed after receiving written confirmation from the LPA.

Schedule of Inspection

1. TBA

7.18 Prior to the commencement on site of any work, a competent person is to be appointed to monitor the day-to-day activities on site. In the case of a tree being damaged or where an unexpected event arises it will be for this person to contact Shields Arboricultural Consultancy to seek advice on contingency measures.

S.J.A. Shields

Uni Cert For. & F.P. (Bangor)
P. Dip. Arb. (RFS), MSc. Arb. & Urban For. (UCLan)
M.Arbor.A, MICFor.
Chartered Forester

5th June 2025

GREEN INFRASTRUCTURE STATEMENT & NET BIODIVERSITY BENEFIT FORM

Complete the boxes in the form in Appendix 1 and include with your planning application

Q. What is a Green Infrastructure (GI) Statement?
A Green Infrastructure Statement describes how the green infrastructure of a site (trees, hedges, and SuDS etc.) has been incorporated into the development proposal.

Q. Why do I need a Green Infrastructure Statement?
A Green Infrastructure Statement is required on all developments, following Planning Policy Wales - PPW12 and the *Environment (Wales) Act 2016 Section 6 duty,* to show that development has a **net benefit** to biodiversity and green infrastructure. This information is not appropriate to seek 'retrospectively' by way of a condition and must be provided as part of the planning application process.

Q. What detail is required in the Green Infrastructure Statement?
A Green Infrastructure Statement is to be proportionate to the scale and nature of the development. In the case of minor development such as householder applications, PPW12 states that this should not be an onerous requirement for applicants.

Q. What is Net Biodiversity Benefit?
PPW12 requires development to provide a net benefit for biodiversity (NBB) i.e. a better outcome than if the site was left undeveloped. Failing to provide such a benefit is a valid reason for refusal.

Every application regardless of size must not only mitigate any negative impacts of the development, but also have a positive benefit for biodiversity which will be in place for the lifetime of the development. Enhancements should be onsite, proportional to the size of development, tailored towards features valuable in the area or providing linking habitats GI plan

Q. How do I provide the information?
To assist in providing the information that this authority requires, the form in Appendix 1 can be completed to provide the specific Green Infrastructure details and net Biodiversity Benefit that relate to each step of your proposed development.

Q. What measures could provide Net Biodiversity Benefit?
The following information provides examples on what could be provided

Examples of Net Biodiversity Benefit Measures

1) Bird Boxes

Wherever possible bird boxes should be built into new builds or new extensions, rather than attached externally. Woodcrete boxes (such as those built by Vivara or Schwegler) provide the most longevity and best conditions, wooden boxes should only be used in specific circumstances when woodcrete is not suitable.

- Bird boxes should be a minimum four metres up a tree or a wall.
- Unless there are trees or buildings which shade the box during the day, face the box between north and east, thus avoiding strong sunlight and the wettest winds.
- Make sure that the birds have a clear flight path to the nest without any clutter directly in front of the entrance. Tilt the box forward slightly so that any driving rain will hit the roof and bounce clear.
- House sparrows and starlings will readily use nest boxes placed high up under the eaves. Since these birds nest in loose colonies, two or three can be sited spaced out on the same side of the house. Keep these away from areas where house martins normally nest.
- Within a housing development a minimum of 75% of properties should have a bird nesting feature built in. For a single house, either an integral bird or bat feature can be chosen.

Boxes suitable for buildings -

House Sparrow terrace



Swift



House Martin



Swallow (in garages/log stores/lean-to)





In agricultural sites, provision of a barn own nest box on a hedgerow tree or pole is appropriate. Good quality wooden boxes are available from the Barn Owl Trust. Commercially sold boxes very massively in quality, only pressure treated or marine ply are suitable materials.

2) Bat boxes

There is a preference for integrated bat boxes and tubes which can be matched and built into the walls and facade of a building, for instance Green & Blues Bat Block, Vivara pro build-in and Schwegler woodstone bat tube. They have the advantage of offering a secure, permanent space for bats with little maintenance and potentially better thermal properties. If integral boxes cannot be used boxes should be long-lasting woodcrete such as Schwegler 2F or Beaumaris.

Bat boxes are more likely to be used if they are located where bats are known to feed. Ideally, several boxes should be put up facing in different directions on sunny aspects to provide a range of warm conditions. Boxes should be put as high as possible to try and avoid predation from cats on the ground or nearby structures. On buildings, boxes should be placed as close to the eaves as possible. Bats use dark tree lines or hedgerows for navigation, so putting boxes near these features could help bats find the box.

The use of raised ridge tiles or access to roof spaces is only acceptable if the roofing membrane is a non- fibrous traditional bitumen based one. Breathable membranes can cause entanglement issues for bats which is damaging for both the bats and the roof.

Within a housing development a minimum of 30% of properties should have a bat roost feature built in. For a single house, either an integral bird or bat feature can be chosen.
Locate boxes:

- Where bats are known to feed and navigate (close to hedges and tree lines);
- Ideally at least 4m above the ground (where safe installation is possible);
- Away from artificial light sources (to protect them from predation); and
- Sheltered from strong winds and exposed to the sun for part of the day (usually south, south-east or south-west).

3) Wildflower Grassland

Many of our pollinating insects are in decline with figures suggesting a loss, over the past 40 years, of around 70% of our native bee population alone.

Installing an area of wildflower grassland creates an attractive floral display and immediately increases the food source for a wide range of pollinating insects, birds, amphibians and mammals. It can also reduce management costs through reduced mowing.

Seed

Seed should be native and from a trusted and reputable supplier such as Wild Flower Habitat Seed Mixes | 100% UK Native Wildflower Seed - Landlife Wildflower or Mixtures | Emorsgate Seeds – (01553) 829 028 (wildseed.co.uk) where mixes can be bought for various sites and soil conditions.

Supplier's advice on ground preparation should be followed or general instructions can be found; Wildflower meadow: establishment / RHS Gardening

Turfs

In some circumstances turfs can be purchased and give a more instant result. However, these are expensive and many are backed with plastic to hold the turfs together. Like any turf, they will require regular watering until established.

Management

Management of wildflower grassland is key, and this should be given appropriate consideration prior to installation. Grasslands should be cut a maximum of twice per year (early March and mid-late August) and then all arising removed to reduce fertility and provide improved conditions for wild flowers. For this reason it is difficult to maintain wildflower grassland on slopes or bunds.

4) Trees

Native trees and woodland provide habitat for a variety of plants and animals as well as storing carbon which helps to combat climate change. Tree planting in groups is especially valuable.

Native trees which are considered to have biodiversity benefits are listed below.

- Alder, Beech, Birch (silver or downy), Blackthorn, Black poplar, Cherry (bird or wild), Crab apple, Dog wood, Field maple, Hawthorn, Hazel, Holly, Lime (common or small leaved), Oak (English or sessile), Rowan/mountain ash, Wild service, Willow (grey or goat) and Wych elm.
- The tree planting season is considered to be from November to March.
- Trees should be protected from damage from livestock or rabbits by fencing or guards if necessary.
- Watering may be required in periods of dry weather.
- The size and species of any trees should be clearly marked on plans.

Orchards

Traditional orchards are havens for biodiversity. They offer both food and shelter to thousands of species some of which have high conservation priority. A traditional orchard which contains fruit species such as apple, pear, plum, cherry and damson can make an excellent contribution to biodiversity.

Information on how to plant and manage an orchard is available from PTES Planting fruit trees - People's Trust for Endangered Species (ptes.org)

Urban Tree Planting

Planting trees in urban areas is particularly valuable in terms of reducing pollution and mitigating the impact of climate change. Due to the complexity of urban tree planting it is suggested that applicants approach a professional who can recommend particular species that will fit in the available space and prepare a plan to protect the rooting area of the new trees to ensure they have a long lifespan.

5) Native Hedgerows

Hedges are a better choice of boundary for wildlife than fences or walls, especially if native trees and shrubs are used. Hedges allow wildlife to move about between gardens and other spaces, and provide feeding and breeding opportunities. If hedges exist but are patchy (defunct) hedgerow restoration is an option including some fencing as protection.

Choosing the Right Species

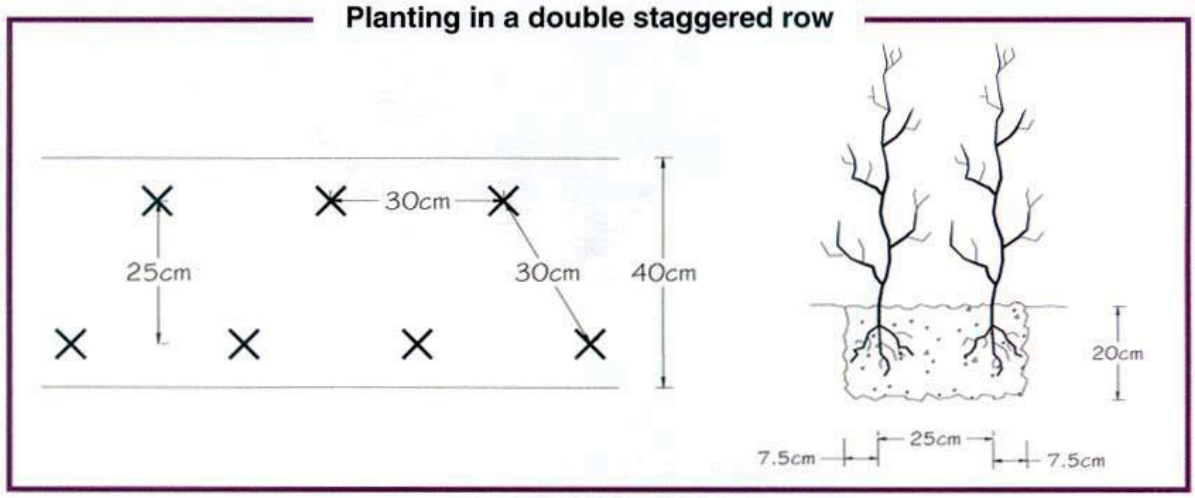
- Take a look at other hedgerows in the local area and choose species that you can see to retain local distinctiveness.
- Use a minimum of 5 species.
- Blackthorn (*Prunus spinose)* combined with Hawthorn (*Crataegus monogyna)* should make up 80-85% of your species, these can be integrated with any three from:
- 5-15% Hazel (*Corylus avellana)* and/or Field Maple *(Acer campestre);* and
- 0-5% of Holly (*Ilex aquifolium),* Field Rose *(Rosa arvensis),* Gooseberry (*Ribes uva-crispa),* Bird Cherry *(Prunus padus)* and Dog Rose *(Rosa canina).*
- Choose 60cm+ bare-rooted transplants or pot grown for some species such as Holly

Preparation

- The best time for planting is late autumn, after mid-November, although anytime between October and March is acceptable, provided the ground is not frozen or flooded.
- Create a 1m wide, weed free strip either by ploughing, digging or in limited cases, treating with a systemic herbicide.
- Ensure the bare roots of the plants do not dry out before planting.

Planting

- Plants should be supplied in accordance with the Horticultural Trade Association's National Plant specification and be sourced from a nursery that is a Member of the Horticultural Trades Association Nursery Certification Scheme.
- Plant in trenches large enough to take full spread of roots (20cm depth x 40cm width). Back fill with a previously prepared mixture of topsoil excavated from the pit, together with suitable compost and additional topsoil as required.
- Plant in a double staggered row approximately 30cm apart.
- Set out plants evenly using the plan below as a guide, 6 plants per m.
- The base of the hedge should be mulched with a 50-75mm layer of composted bark to stop weed growth and retain moisture in the soil.
- Where necessary, protect plants from damage and grazing by using protective tubes or spiral guards.



Maintenance

- Water the hedge for the first summer or any dry period in the 1st 12 months.
- Maintain weed control for at least 2 seasons.
- Replace any stock that dies within the first year.
- To encourage wildlife, trim the hedgerow no more than every 2nd year. This allows the shrubs and trees to produce more flowers, nuts and berries.
- Never trim the hedgerow between the beginning of March and the end of August when it would be harmful to invertebrates and nesting birds. The ideal time to trim the hedgerow is between January and February.

6) Pollinator shrub planting

In urban areas provision of trees may be difficult. In these situations carefully chosen flower/shrub species which are used by insects are appropriate. IMPORTANT these non-native horticultural or

ornamental plants can be good sources or nectar or pollen but should not be used in semi-natural habitats or farmlands.
There is a preference for perennial plants which are a better source of pollen than annuals and are more cost and resource effective.

Ground preparation – soil should be well drained not compacted, a slow release fertiliser and organic (peat free) compost can be added. March and April are the best months for planting and all newly planted shrubs must be watered during dry periods.

Suitable species can be found at the following web link: Wales Biodiversity Partnership - Guides to help (biodiversitywales.org.uk)

7) Wildlife Ponds

Wrexham County Borough is classed as an important pond landscape due the soils and geology providing excellent conditions. Previous farming techniques have resulted in field systems with a pond density far greater than the national average.

As part of an application it may be possible to restore an old pond, enhance an existing pond or provide a new wildlife pond.

Guidance on the above can be found at - Ponds - Freshwater Habitats TrustFreshwater Habitats Trust

8) Pollinator Shrub Planting

In urban areas provision of trees may be difficult. In these situations carefully chosen flower/shrub species which are used by insects are appropriate. IMPORTANT these non-native horticultural or ornamental plants can be good sources or nectar or pollen but should not be used in semi-natural habitats, farmlands or rural fringe.

There is a preference for perennial plants which are a better source of pollen than annuals and are more cost and resource effective.

Ground preparation – soil should be well drained not compacted, a slow release fertiliser and organic (peat free) compost can be added. March and April are the best months for planting and all newly planted shrubs must be watered during dry periods.

Suitable species can be found at the following web link:

Wales Biodiversity Partnership - Guides to help (biodiversitywales.org.uk)

9) Green Roofs, Green Walls, Rain Gardens.

Redevelopment of the city centre provides opportunities for both economic growth and environmental enhancement through supporting objectives on air quality, climate resilience and biodiversity. Projects where green or blue infrastructure are added to urban buildings or streets are sometimes complex but can have enormous benefits. There is guidance available on-line, with the

Green Roof Organisation producing a Code of Best Practice available with supporting documents at Green Roof Organisation | Not for profit trade association.

Biodiverse green roofs are designed to provide a particular native vegetation type or bespoke habitat for particular species of wildlife. These green roofs typically have deeper soils than sedum roofs, may or may not be irrigated and tend to have wider variety of plant types. Information on more biodiverse projects Living Roof Projects - Buglife

10) Reptile or Amphibian Hibernacula

Hibernacula are underground chambers that amphibians and reptiles use throughout the winter to protect themselves from the cold. They can be installed in relatively small spaces, but should only be used in close association with existing ponds or reptile populations.

Hibernation FAQs | Amphibian and Reptile Conservation (arc-trust.org)

11) Butterfly Banks or Scrapes

There are areas around Wrexham (particularly Wrexham Industrial Estate) which are exceptionally important for rare species of butterfly namely dingy skipper and grizzled skipper. The creation of a bank approximately 60cm high in the correct location can provide a sunny sheltered strip in which the butterfly's food plants can be added. A combination of plugs and seed from some of the following species Common Bird's-foot-trefoil (*Lotus corniculatus*), Agrimony (*Agrimonia eupatoria*), Creeping Cinquefoil (*Potentilla reptans*), Wild Strawberry (*Fragaria vesca*), Barren Strawberry *(P. sterilis),* Tormentil *(P. erecta*) and Salad Burnet (*Sanguisorba minor*) should be added to subsoil for optimal results.

Habitat Creation | Butterfly Conservation (butterfly-conservation.org)

Appendix 1: Green Infrastructure Statement and Net Biodiversity Benefit

Form completed by:	**Stephen Shields**
Date:	**5th June 2025**
Address of site:	**Tall Timbers, Pistyll Hill, Marford**
Grid reference:	**336188 355298**
Description of Proposal:	**Re-development of existing dwelling**

1. Details of all existing green infrastructure on site and approximate size:

Boundary 1:	*Beech Hedgerow 25m Leylandii Hedgerow 19m*
Boundary 2:	*Leylandii Hedgerow 30 with 5 specimen trees, 1 Beech, 3 Norway Maple, 1 Ash*
Boundary 3:	*Cherry Laurel Hedgerow 30m Lawson Cypress Hedgerow 15m*
Boundary 4:	*Lawson Cypress Hedgerow 22m 1 shrub Hazel*
Front Garden:	*Grass lawn 240m^2*
Rear Garden:	*Grass lawn (poor condition) 500m^2*
Other:	

2. What green infrastructure features (trees, hedges, hedgebanks) have already been removed from site and/or require removal to facilitate the development (add lengths or areas)?

Boundary 1:	
Boundary 2:	
Boundary 3:	
Boundary 4:	
Front Garden:	
Rear Garden:	
Other:	

3. How are the retained features being protected during development (BS5837:2012)?

Boundary 1:	*BS 5837 fencing (see Tree Protection Plan)*
Boundary 2:	*BS 5837 fencing (see Tree Protection Plan)*
Boundary 3:	*BS 5837 fencing (see Tree Protection Plan)*
Boundary 4:	*BS 5837 fencing (see Tree Protection Plan)*
Front Garden:	*None, will be re-instated*
Rear Garden:	*None, will be re-instated*
Other:	

4. What Green Infrastructure is being planted as mitigation for losses?

Boundary 1:	
Boundary 2:	
Boundary 3:	
Boundary 4:	
Front Garden:	*Re-instatement of grass lawn*
Rear Garden:	*Re-instatement of grass lawn*
Other:	

5. Biodiversity enhancements

The enhancements do not need to be directly attached to the proposed new construction; they can be attached to the host dwelling or placed within the garden, but they do need to be on land within the red or blue line. The principle is that the enhancements should lead to a 'net benefit' for biodiversity. The following biodiversity enhancements have also been added:

√	**Measure**	**Plan**	**Details**
	Boxes. (state type and number) Please make sure they are currently available to buy.	Submit a plan of location and photos of elevation if available.	Height or aspect
	1 Sparrow Terrace Nest Box	See BNG Plan	North Aspect @ 4 M approx
	Hedgerow. Total new or restored length.	Submit plan of location.	Calculate number of each species using information in the guidance above. Ensure that you can easily purchase the species proposed.
	Tree/orchard planting. Number of trees.	Submit planting plan.	Size of tree (at time of planting), species (full latin name) and any proposed protection measures.
	1 amenity tree	See BNG Plan	See BNG report
	Wild flower grassland (area in m2).	Submit plan of location.	Species mix and site preparation details. Confirm that appropriate management is achievable.
	Pollinator shrub planting. Area in m2.	Submit plan of location.	Species proposed (latin names)

	Wildlife ponds. Number of.	Submit plan to scale including cross-section.	Details on lining or any proposed planting.
	Hibernacula. Number of.	Submit plan of location.	Brief description of materials proposed.
	Any other measures.		

6. Management and maintenance.

Any information on the long term management and maintenance of the enhancements.

See BNG Report

7. Conclusion

Based on the information provided above, this development will result in a **Green Infrastructure and Net Biodiversity Benefits** upon completion.

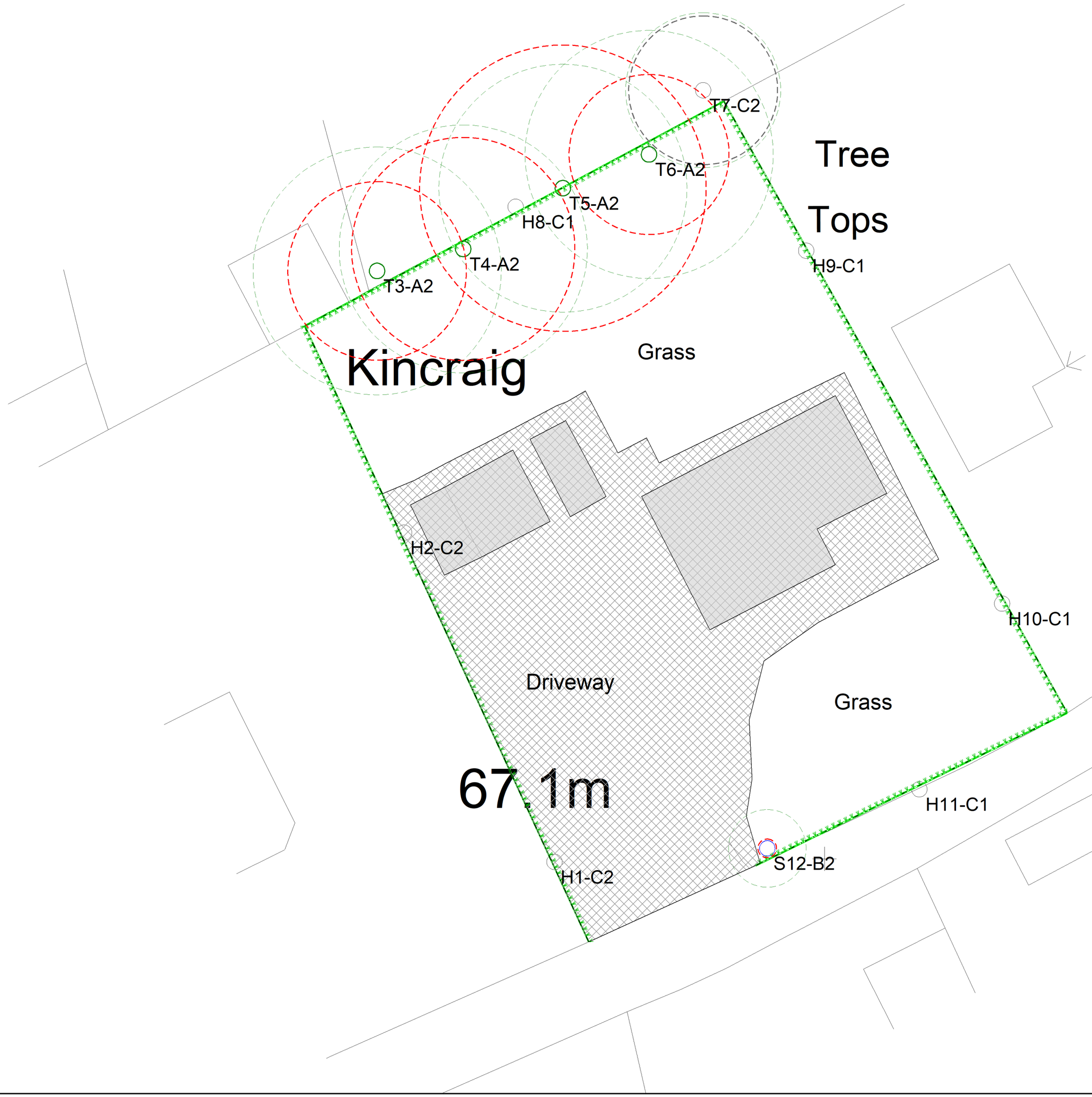
8. Sketch plan (Insert plan showing the features of the development site):

See BNG Report

9. Site photos (as required)

See BNG Report

North



Shields Arboricultural Consultancy

Tree & Woodland Management Solutions

Site Constraints Plan

Tall Timbers
Pistyll Hill
Marford
Wrexham

Key

- Cat A Tree
- Cat B Tree
- Cat C Tree
- Cat U Tree
- Hedgerow
- Canopy Spread Trees & Groups
- RPA
- RPA Cat C

Drawing No: TTM/SCP/06/25

Drawn By: S. Shields

Scale: 1:200 @ A2

Date: 4th June 2025

Revision:

Do not scale from this drawing all dimensions to be checked on site
Drawing is colour coded and a monochrome copy should not be relied upon

© Shields Arboricultural Consultancy
© Crow n copyright and database rights 2025

North

T7-C2
T6-A2
T5-A2
H8-C1
T4-A2
T3-A2
H9-C1
Garden
Grass
Bird nesting box on north elevation
H2-C2
H10-C1
New Tree
Driveway
Grass
Garden
Driveway
H11-C1
S12-B2
H1-C2

Shields Arboricultural Consultancy

Tree & Woodland Management Solutions

BNG Site Plan

Tall Timbers
Pistyll Hill
Marford
Wrexham

Key

- Cat A Tree
- Cat B Tree
- Cat C Tree
- Cat U Tree
- Hedgerow
- Canopy Spread Trees & Groups
- CEZ
- Temp. Tree Protection Fencing

Drawing No: TTM/BNG/06/25

Drawn By: S. Shields

Scale: 1:200 @ A2

Date: 4th June 2025

Revision:

Do not scale from this drawing all dimensions to be checked on site
Drawing is colour coded and a monochrome copy should not be relied upon

© Shields Arboricultural Consultancy
© Crow n copyright and database rights 2025