

Design and Access Statement

Including Green Infrastructure Statement

4575 - Replacement Dwelling

Long Nursery Coppice, New Radnor, LD8 2RE

Version 1.0 - February 2024 (RJB)



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Introduction and Contents



This statement has been prepared by RRA Architects in support of the proposals for a replacement dwelling at Long Nursery Coppice, New Radnor, LD8 2RE.

The document outlines the scope of the proposals, in addition to explaining how impact on Long Nursery Coppice and its wider surroundings has been minimised. It is proposed to replace the existing dwelling, which is in poor condition, with a single storey new build property purposely designed for modern family living, in a sought after location.

This statement should be read in conjunction with the submitted RRA drawing set and other supporting documentation submitted as part of this application.

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Version 1.0 - 19/02/2024 (RJB)

Section 1 - Site and Context

Site Location, Access and History



Overall view, looking over the external terrace.

1.0 Site and Context



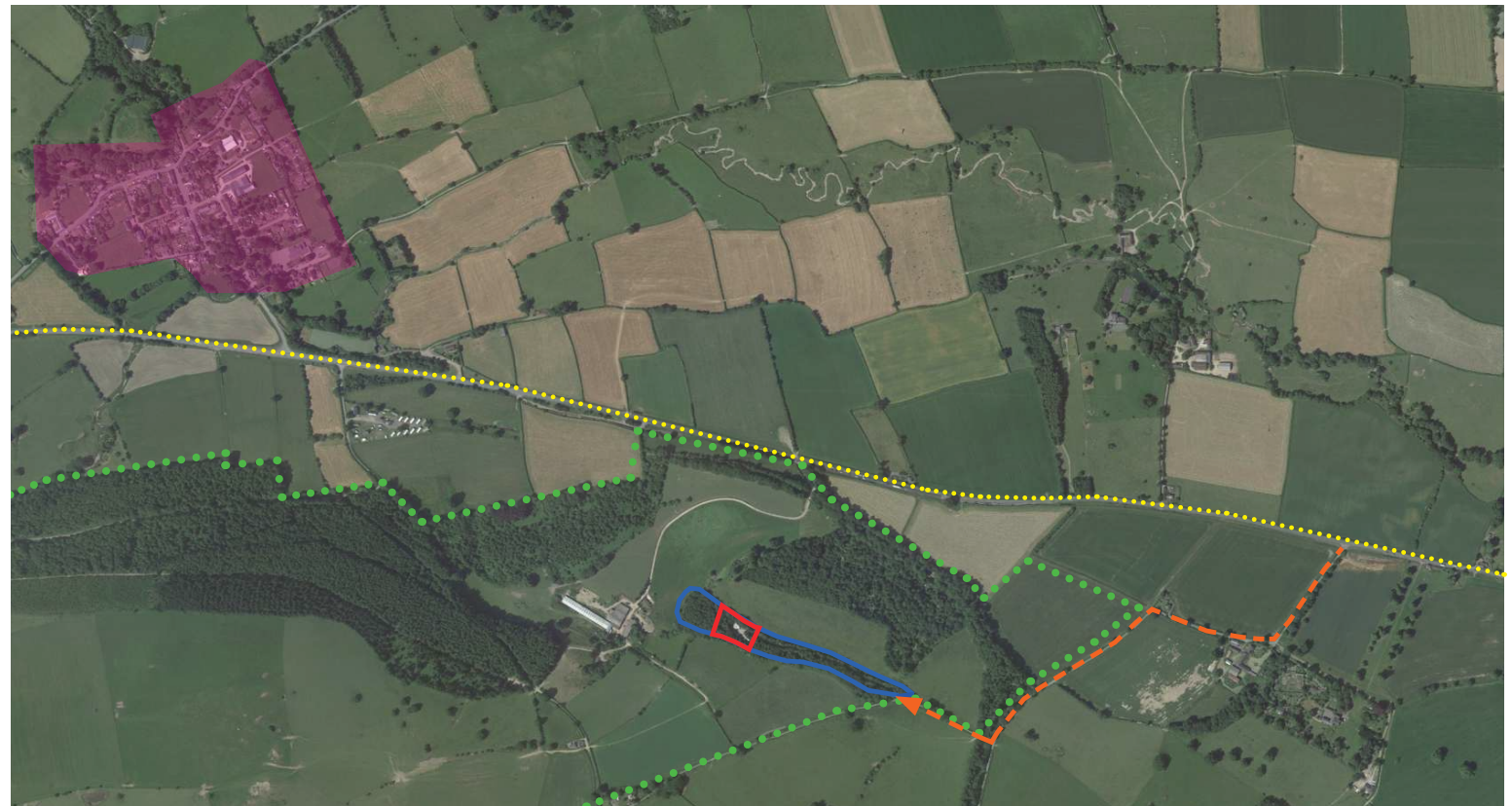
1.1 Site Location

Long Nursery Coppice is located within 1 mile of the Village of New Radnor.

LANDMAP's Visual and Sensory Evaluation defines the wider area surrounding the site as *'a good example of wild, open, spacious, natural, diverse, tranquil upland moorland which is generally upland moorland which is generally well managed with attractive views'*.

The site itself, however, is a narrow stretch of designated ancient woodland located on the lower slopes of this area. As a result, the surrounding trees shield the site from the surrounding moorland.

-  Long Nursery Coppice
-  Proposed Site
(Within wider Long Nursery Coppice Boundary)
-  New Radnor
-  Site Access from A44
-  A44
-  LANDMAP Area Designation



1.2 Site Access

Access is currently provided to Long Nursery Coppice from the C1341 by a private drive through the woodland. It is proposed to make improvements to this access to satisfy current highways requirements - please see the separate highways information for further details.

1.0 Site and Context



1.3 Nearby Listed Buildings

Two listed buildings are located within 250m of the development site, both located on a nearby farm, which are outlined below. Given the densely wooded nature of the site, these proposals will have no impact on the character or setting of the listed buildings.

1 - Bryn

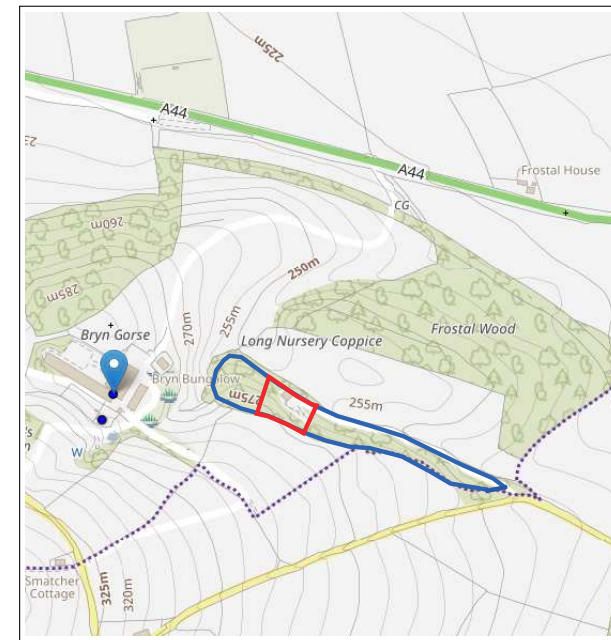
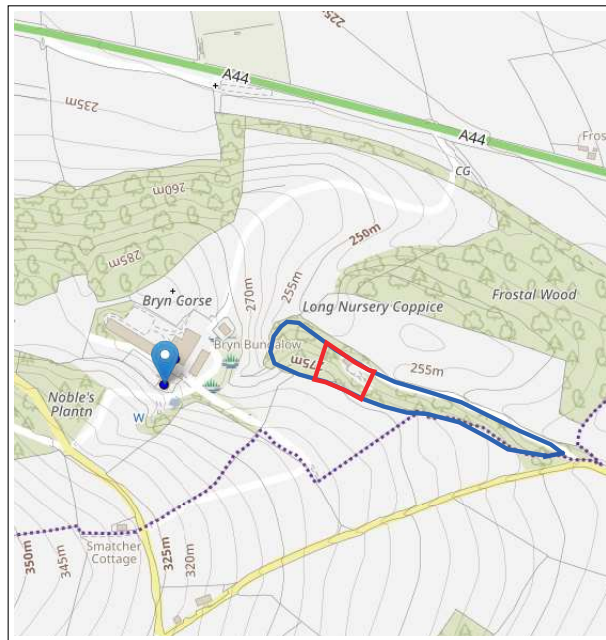
Cadw Reference no. 9264

Mid C19 (?) or perhaps refacing of earlier house. Two storeys, coursed rubble, stone slate roof, half-hipped to right, tall brick stack to left end and rear lateral stack. Brick and slate lean-to housing wash-house at right-hand end. Orderly window arrangement, ground-floor openings under cambered voussoir heads, all chamfered, transomed frames with iron-bar glazing and central opening casement. First-floor windows, three-light iron casements with chamfered frames. Panelled front door, hipped slated porch canopy on chamfered posts.

2 - L-Plan Farm Ranges to N of the Bryn

Cadw Reference no. 9265

Outbuildings: L-plan range 25m north of the farmhouse incorporating a four-bay barn and lofted cowhouse. High rubble base walls, stud framework uppers with weatherboarding, slate and corrugated iron roofs. Contemporary with the farmhouse.



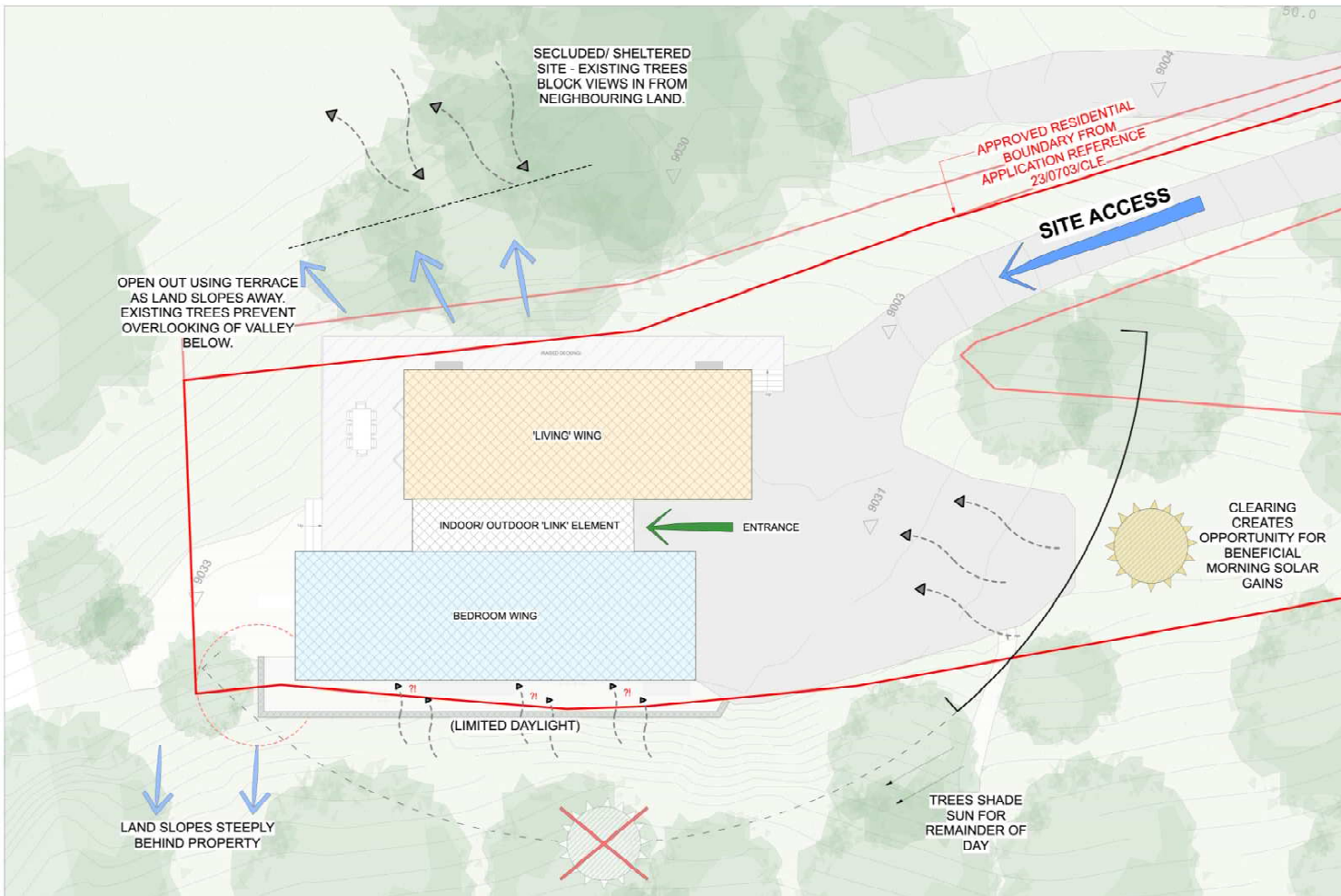
1.0 Site and Context



1.4 Existing Site Character

As previously mentioned, Long Nursery Coppice is densely wooded. The development site consists of a plateau within the woodland on the lower levels of a steeply sloped hillside. The dense vegetation gives this plateau a secluded character. Part of the site currently houses a number of outbuildings which are used for ancillary storage, something the current property fails to provide - these will be removed as part of the proposals, and any required storage incorporated into the main property, to prevent any potential harm to local biodiversity that this may cause.

Site opportunities and Constraints



Site Photographs - Woodland Character



1.0 Site and Context

1.5 Existing Property

The existing property is a large, sprawling two bedroom dwelling, which is in poor condition. Despite this, the property was the permanent residence of the previous owner until at least March 2023. Given the lightweight construction and poor condition of the property, repairs to the existing to facilitate its continued use are not deemed appropriate, and a replacement dwelling is instead proposed.

1.6 Planning History

The property was previously subject to a certificate of lawful development application, reference 23/0703/CLE, approved 27 June 2023. The application description for this dwelling is as follows:

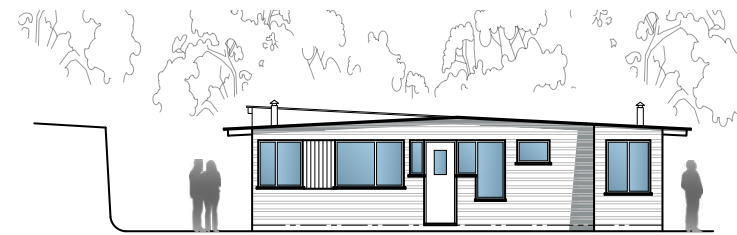
'Lawful Development Certificate under Section 191 for the retention of an existing dwelling and outbuilding, and use of land for residential purposes'

This established the present residential use of the site within the boundary defined as part of the application, with the rest of the site remaining as designated woodland. This boundary is shown on the previous page and is present on all site plans shown.



Existing Dwelling in Context

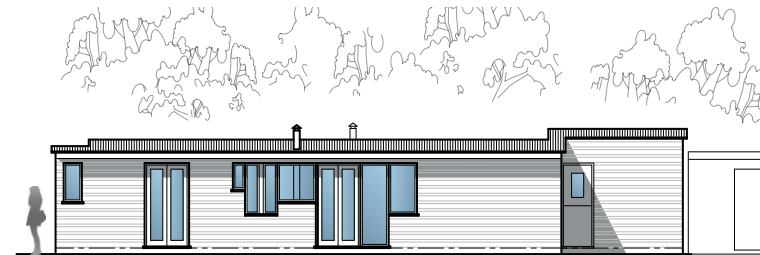
Existing Dwelling - Elevations



Front (south-east)



Rear (north-west)



Side (north-east)



Side (south-west)

Section 2 - The Proposals

Scheme Rationale, Layout and Form



View from the living room looking onto the terrace.

2.0 The Proposals

2.1 Scheme Rationale

It is proposed to construct a replacement family dwelling. Given that the existing property is of lightweight construction and is in poor condition, there is little value in upgrading the existing. Given the significant amount of modification that would be required to bring the building upto current regulations, constructing a replacement dwelling represents a more cost effective and less labour intensive option. In addition, this allows the new dwelling to maximise the site.

2.2 Scale

A 4 bedroom replacement dwelling is proposed. Whilst it is accepted that this likely represents the limit of acceptable development on the site, the aim of these proposals is to create a property that allows a small family to live comfortably with scope for a home office and guest accommodation - both essential elements of modern living. Given the rural location and lack of local amenities, the dwelling must be self-sufficient and provide these facilities on-site. It is therefore considered better to construct a single cohesive entity that provides these facilities from the outset rather than leaving the current site vulnerable to further future development. This will prevent unnecessary harm to the historic woodland through repeated construction works.

In addition, the layout of the existing dwelling is inefficient. A significant amount of floor space is used for circulation, resulting in wasted floor space that could be better used elsewhere. Therefore, despite the extra bedrooms, the proposed floor area represents an increase of just 14% over the existing. As highlighted below, the floor area has also been reduced following pre-application advice - please see the consultation section of this document for further details.

Existing Floor Plan



Key:

 Circulation space, a significant proportion of the floor plan.

 Underutilised floor space, numbered as follows:

- 1 - Long, thin lounge - likely results in wasted space at either end of the room, assuming seating is arranged around the fireplace.
- 2 - Bay window - location at the corner of the room makes it difficult for this floor area to be used.
- 3 - Long, thin store is underutilised
- 4 - Generator building is underutilised

Existing Built Area	GIFA - Preapp	GIFA - Full Planning
162sqm	195sqm (+20%)	185sqm (+14%)

Finally, the walls of the existing property are very thin. To meet current building regulations, the external walls of the proposals will need to more than double in thickness. This further accounts for the increased footprint of the proposals compared to the existing.

2.0 The Proposals

2.3 Use

The proposed use will remain unchanged, as a single family dwelling.

2.4 Layout

This layout has been designed to efficiently use the space available and minimise additional floor area. The proposal is formed of two wings placed parallel to each other, with entry through a central link element.

The northern wing houses open-plan living accommodation, whilst an external terrace maximises use of views over the valley to the north through the trees.

The southern wing houses bedrooms and a utility. To reduce the mass of the proposals, this wing is partially dug into the steeply sloping site.

Given the densely wooded and sloping nature of the site, use of rooflights and vaulted ceilings has been maximised throughout, to improve natural daylighting and enhance connection to the exterior.

2.5 Landscaping

The proposals have been carefully considered to minimise impact on the surrounding woodland and individual trees, and enhance the local habitat where possible. For further information, please see the green infrastructure statement which is included as part of this document.

Proposed Floor Plan



2.0 The Proposals

2.6 Materials

The material palette is intended to give a contemporary feel whilst also referencing and complementing the surroundings. Timber cladding is used on the extension, whilst the roof will be standing seam metal in a matte finish. Fenestration will consist of powder-coated aluminum.

The link will be glazed with a green roof, helping to bed the property into the site.

The raised terrace will also be finished in a combination of stone and powder coated aluminium. Given the dense existing tree planting in front of the terrace, which the proposals will not affect, this terrace will have little visual impact on the character of the surroundings.

2.7 Access

As previously mentioned, the existing site access to the C1341 will be used to serve the proposals. This will be upgraded to provide improved visibility in both directions. In addition, the gate will be set back by more than 5.5m from the edge of the highway, with the surface between the highway edge and gate being of 450mm standard construction.

Three off-street parking spaces are provided, in accordance with CSS Wales Parking Standards, whilst 4 passing bays have also been provided on the access lane to the property.

Please see RRA drawing numbers 4575 P(0) 210 and 4575 P(0) 211 for further details.



North East Elevation



South West Elevation



North West Elevation



South East Elevation

2.0 The Proposals

2.8 Sustainable Design

Extensive consideration has been given throughout the design process to minimise the scheme's impact on the sensitive site. Hence, passive design strategies are integral to the proposals to improve the scheme's energy efficiency. The strategies proposed are outlined below.

- 1 Given the densely wooded nature of the site with considerable slopes to the south, the opportunity for beneficial solar gains is considered low. Hence, an approach of minimising heat losses through high levels of insulation is instead proposed.

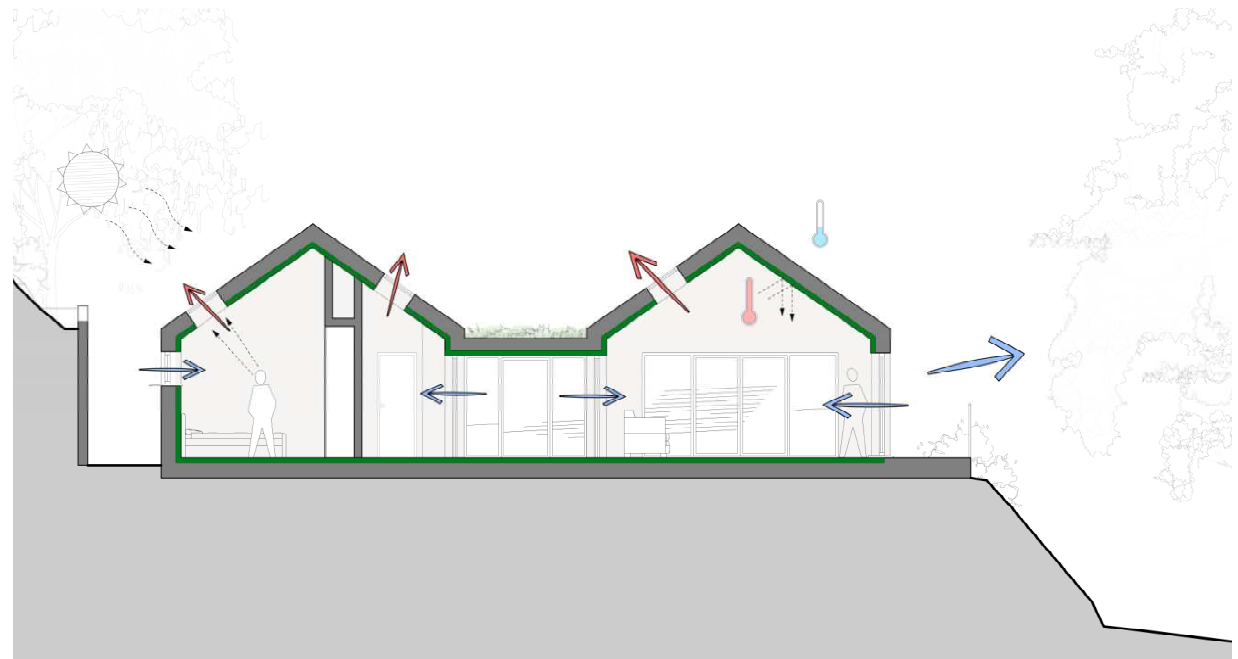
As a new build, high levels of insulation and airtightness, including use of high performance glazing, will be specified. This will meet or exceed targets set by Part L of the Building regulations. Hence, heat losses will be minimised. In addition, thermal performance and embodied energy content will be balanced through careful selection of materials where possible that both meet the high performance standards required and have minimal environmental impact during their production.

- 2 Natural Ventilation, using opening windows, provides a simple yet efficient passive ventilation solution. Either stack or cross ventilation will be used depending on location within the property. Recent research has suggested that mechanical ventilation systems, when combined with high levels of insulation and airtightness, may further reduce a building's energy use¹. At detail design, the opportunity for mechanical ventilation with heat recovery may therefore be explored as an alternative.

- 3 Natural shading provided by the surrounding woodland will work with the high performance envelope to prevent the property from overheating.

Efficient services will be specified throughout the property. This includes use of an Air Source Heat Pump to provide clean heating. Although this will require a small amount of energy to run, this still poses a far more efficient solution when compared to a traditional boiler. Furthermore, despite the densely wooded site limiting the amount of sun the property will receive, the potential provision of solar panels will be explored at detail design using cost-benefit analysis to determine their viability.

Proposed measures to improve site biodiversity are detailed further in the Green Infrastructure Statement enclosed within this document.



Indicative Conceptual Section

1. S. Natarajan, R. Mitchell, 'UK Passivhaus and the Energy Performance Gap', *Energy and Buildings*, 224 (2020).

2.9 Green Infrastructure Statement

Overview

This statement outlines the measures taken to enhance site biodiversity and minimise impact on the surrounding historic woodland. It is to be read in conjunction with the separate ecology survey provided as part of this application, which provides further detail.

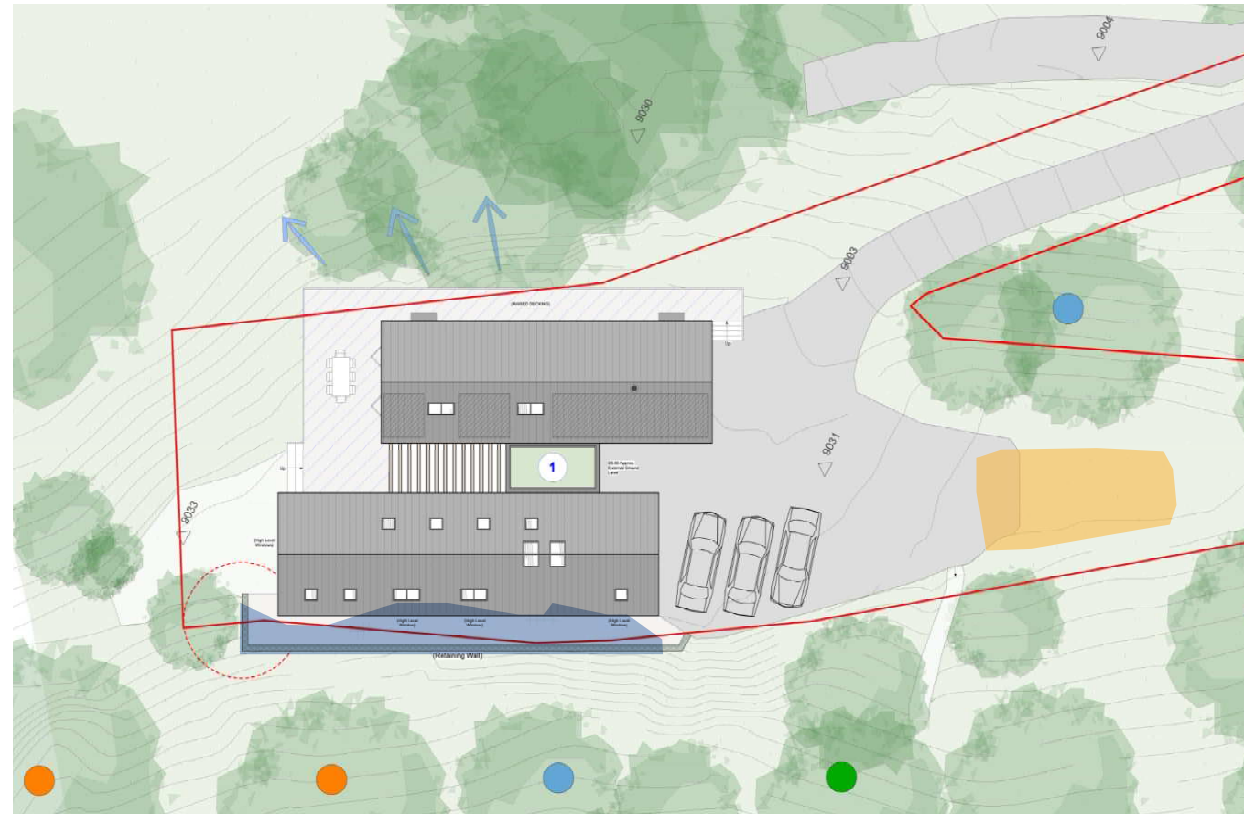
The proposals have been located on the site to minimise impact on the historic woodland. Resultantly, only two young trees will need to be removed as a result of the proposals, both of which fall within the residential boundary established by the previous lawful development certificate application. These trees will be offset by supplementary planting elsewhere on the site.

Whilst the northern external terrace extends beyond this boundary, it has been designed to cantilever. Similarly, a small element of the existing rear earth bank is proposed to be removed, to shore up the existing retaining wall and prevent any future earth movement whilst also facilitating rear access to the property. Both of these elements do not affect any trees and hence the integrity of the historic woodland is retained.

Additional Biodiversity Measures

To further enhance site biodiversity, a green roof is proposed to the central link element of the property. Multiple habitat boxes will also be placed within the site, as indicated on the plan beside.

Existing planting will be supplemented with native species where possible, hence mitigating any impact from the potential loss of low level planting caused by the proposed retaining wall works at the rear of the property. The intended location of this planting, which is again noted on the site plan beside, is currently hardstanding which was used by the previous owner for external storage. Increasing planting in this location would thus result in a net gain in planted area despite the concessions made elsewhere.



-  Location and spread of trees from Topographical Survey
-  Location of trees to be removed.
-  Area of bank to be removed.
-  Residential boundary defined by application reference 23/0703/CLE
-  Green roof to link element.
-  Proposed low-level planting.
-  Bird Boxes (Tree Mounted)
-  Bat Boxes (Tree Mounted)
-  Hedgehog Boxes

Section 3 - Consultation

Summary of previous pre-application advice



Proposed Outdoor Kitchen and Dining Area

3.0 Consultation

The scheme was submitted for a Pre-application enquiry, reference 23/0160/PRE, dated 8 November 2023.

Feedback from the enquiry was largely positive. The response confirmed that the established approach of constructing a replacement dwelling was appropriate for the site, given the poor condition of the existing building and the site's established residential use.

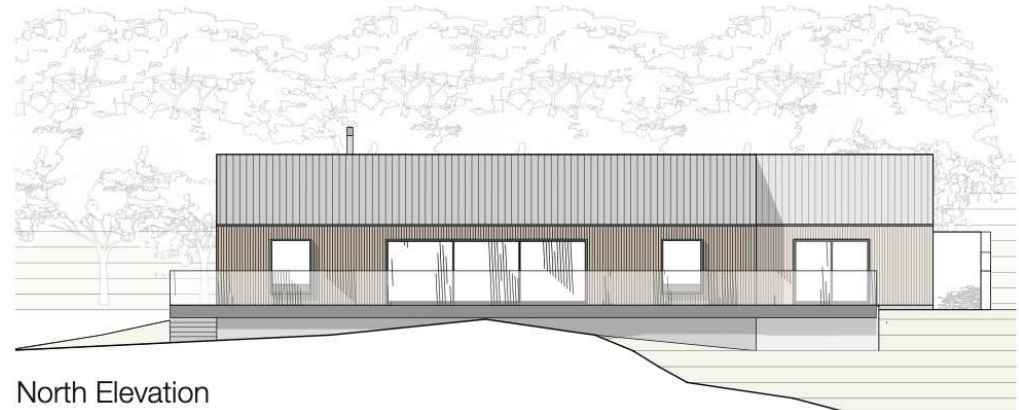
The development form was considered largely appropriate, with the proposed pitched roof considered an improvement over the existing building. Therefore, the proposals presented as part of this application follow a similar form.

However, concerns were raised regarding the increase in floor area over the existing property. As previously mentioned, the current proposed footprint has been reduced compared to the pre-application scheme, and justification for the increase in footprint has been provided, as requested.

The proposed materials were also considered largely appropriate for the woodland setting. Minor concerns were raised regarding the proposed roof material - this will be specified as a matt finish as requested. In addition, the impact of the balcony has been mitigated through the retention of existing trees to act as a buffer from the public footpath.

As demonstrated in this report and other supporting documents, the impact on the surrounding woodland has been minimised. The dwelling itself has been slightly moved so it does not extend beyond the part of the site that has the benefit of residential use, as indicated by the red line area that is taken directly from the previous lawful development certificate application. Whilst the associated landscaping is outside this boundary, the impact of this is considered minimal and has been mitigated elsewhere within the proposals, as outlined in the Green Infrastructure Statement.

Pre-application Elevations:



North Elevation



East Elevation