

The Demolition of the Former Caersalem Chapel and the Erection of 4no. Detached Dwellings and Associated Infrastructure at:

Caersalem Chapel, The Rise, Pant, Merthyr Tydfil,
CF48 2BN

Green infrastructure Statement



Proposed Erection of a Single Dwelling at: Land at Bryn Heulog, Westville, Abertysswg, Rhymney, NP22 5BD

Contents:

- 1.0 - Overview
- 2.0 - Introduction
- 3.0 - Development GI Process
- 4.0 - Summary of Effects, Mitigation and Enhancement
- 5.0 - Conclusion



1.0 Overview

As part of the development process, the existing Green Infrastructure (GI) asset has been assessed in the context of the site, in its wider GI network, and within the policy framework updated Chapter 6 of Planning Policy Wales 12, (Feb 2024).

The following statement reports on the process and how it has influenced the design approach based on national and local policy, focusing on the appropriate and proportionate multi-functional GI benefits that development of the site can contribute, with regard to, and taking all reasonable steps, to enhance the most valuable GI assets.

Chapter 6 of PPW states at that 'all reasonable steps must be taken to maintain and enhance biodiversity and promote the resilience of ecosystems and these should be balanced with the wider economic and social needs of business and local communities'



2.0 Introduction

Definition of Green Infrastructure.

The term 'Green Infrastructure' first came to prominence in the early 2000's most notably in the Landscape Institute Position Statement 'Green Infrastructure An integrated approach to landuse' (2009). This document defined Green Infrastructure as;

'The network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities. It is a natural, service-providing infrastructure that is often more cost effective, more resilient and more capable of meeting social, environmental and economic objectives than 'grey' infrastructure.'

GI Functions are described as the:

'roles that assets can play if planned, designed and managed in a way that is sensitive to, and includes provision for, natural features and ecosystems services. They may have obvious primary functions, but each asset can perform different functions simultaneously – 'multifunctionality.'

The natural environment between and within towns and cities, including greenspace, vegetation and water. Provision of GI offers a multitude of ecosystem services (i.e. the benefits that people derive from nature) and forms part of a sustainable approach to the management of natural resources. New infrastructure should seek to strengthen and reinforce existing assets within a site and it should be planned and designed to be beneficially multi-functional.

2.0 Introduction

Principal Targets of GI.

The principal multifunctional targeted benefits of GI are to:

1. Protect and enhance biodiversity and the resilience of ecosystems and their connectivity;
2. Consider Opportunities for habitat protection, restoration, creation and management in the provision of GI;
3. Contribute to improved mental health with more direct contact with nature, the seasons and natural processes;
4. Identify opportunities where existing and potential green infrastructure could be improved and enhanced as part of placemaking;
5. Provide opportunities for improved physical health and wellbeing through recreational access, community permeability and connectivity;
6. Enhance place-making, identity and sense of community ownership;
7. Improve townscape and landscape quality and visual amenity;
8. Integrate play and recreation in GI networks;
9. Improve micro-climate (summer cooling/winter shelter);
10. Mitigate and adapt to the impacts of climate changes improving of;

- Oxygen production.
- Carbon sequestration (locking carbon in vegetation and soils).
- Water sequestration (vegetation evapotranspiration and formal attenuations).
- Improve air and water quality.
- Reduce flood risk.
- Provide alternative transportation opportunities (cycling/walking/public transport links).

2.0 Introduction

Policy & Guidance

PlanningPolicyWales 2024(12th Edition)

6.2 Green Infrastructure

“Green infrastructure plays a fundamental role in shaping places and our sense of well-being, and are intrinsic to the quality of the spaces we live, work and play in. The planning system should protect and enhance green infrastructure assets and networks because of these multi-functional roles. The protection and enhancement of biodiversity must be carefully considered as part of green infrastructure provision alongside the need to meet society’s wider social and economic objectives and the needs of local communities. The multiple benefits that resilient ecosystems and green infrastructure offer to society, including the economic and social contribution they make to local areas, should be taken into account when balancing and improving these needs.”

“The quality of the built environment should be enhanced by integrating green infrastructure into development through appropriate site selection and use of creative design. With careful planning and design, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, helping to overcome the potential for conflicting objectives, and contributing towards health and well-being outcomes.”

Future Wales: The National Plan 2040

Policy 9 – Resilient Ecological Networks and Green Infrastructure

“To ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, the Welsh Government will work with key partners to:

- identify areas which should be safeguarded and created as ecological networks for their importance for adaptation to climate change, for habitat protection, restoration or creation, to protect species, or which provide key ecosystems services, to ensure they are not unduly compromised by future development; and*
- identify opportunities where existing and potential green infrastructure could be maximised as part of placemaking, requiring the use of nature-based solutions as a key mechanism for securing sustainable growth, ecological connectivity, social equality and well-being.*

Planning authorities should include these areas and/or opportunities in their development plan strategies and policies in order to promote and safeguard the functions and opportunities they provide. In all cases, action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature-based approaches to site planning and the design of the built environment.”

“As part of a green infrastructure assessment, broad opportunities for habitat protection, restoration or creation and the provision of green infrastructure may be specified as part of identifying areas to be safeguarded or may take the form of more specific allocations. This may be achieved, for example, through the provision of buffer areas around protected sites or stepping stones connecting habitats or through the identification of green infrastructure in and around urban areas.”

3.0 Development GI Process

As part of the development process, the existing Green Infrastructure (GI) asset has been considered in the context of the existing situation on site.

The stepwise approach (PPW 12, Feb 2024, page 148 figure 12) has been implemented. A summary of the stepwise approach;

1.Avoid

To avoid damage to biodiversity and ecosystem functioning.

2.Minimise

Alternative sites that would result in less harm, no harm or gain are to be fully considered to minimise the any harmful environment effects.

3.Mitigate/Restore

'...ensure that features and elements of biodiversity or green infrastructure value are retained on site, and enhanced or created where ever possible.'

4.Compensate on site

Onsite compensation must be sought when all other options have been exhausted.

5.Compensate off site

Offsite compensation must be sought when all other options have been exhausted.

6.Long Term Management

Long Term Management of retained and new GI assets to secure enhancement.

4.0 Summary of Effects, Mitigation and Enhancement

The site's ecological value is considered to be Low, reflecting its dense urban setting and the predominance of hardstanding, amenity grassland, and introduced planting of limited botanical diversity. The existing building offers Low bat roost potential, with a small number of crevice-type PRFs identified but no evidence of occupation recorded during the survey. The boundary hedge, introduced shrub planting, and boundary walls provide limited value for commuting and foraging bats, small mammals, and nesting birds, while offering negligible intrinsic botanical interest.

The wider landscape context, including Pant Cemetery, upland habitat within Bannau Brycheiniog (Brecon Beacons) National Park, and the Nant Morlais corridor, is of greater ecological significance and supports the desktop study's notable bat, amphibian, and invertebrate records, though these features are not directly connected to the site by continuous vegetation.

While no protected or priority species were recorded on site during the survey, their potential presence, particularly of crevice-dwelling bat species, cannot be entirely discounted given the habitat types present and the inherent limitations of a preliminary, single-visit assessment.

Without the implementation of appropriate mitigation, several potential ecological impacts could arise from the proposed development:

Bats: Demolition of Building A without a prior dusk emergence survey could result in the direct impact, injury, or mortality of any roosting bats present within the identified crevice-type PRFs, particularly given the Low roost potential and the potential for hibernating pipistrelle species. Construction activities, including noise, vibration, and lighting, could also disturb bats using the boundary vegetation for commuting and foraging.

Nesting Birds: There is potential for disturbance to, or destruction of, active nests if vegetation clearance or demolition works are undertaken during the bird breeding season (typically March to August inclusive).

Amphibians, Reptiles, and Small Mammals: Site clearance works could result in injury or mortality to amphibians, reptiles, or small mammals sheltering within boundary vegetation.

Trees and Green Infrastructure: Loss of boundary hedgerow, shrub planting, or other vegetated features without adequate replacement could reduce local habitat connectivity and green infrastructure value.



4.0 Summary of Effects, Mitigation and Enhancement

Step 1: Avoid

Trees recorded on and adjacent to the site represent an important component of the local green infrastructure network, providing ecological, amenity, and environmental functions including canopy cover, carbon sequestration, and habitat connectivity.

Step 2: Minimise

To mitigate the low risk of encountering amphibians, reptiles, and small mammals, a fingertip search must be conducted by a suitably experienced and licensed ecologist prior to any further site clearance. This is essential to prevent the potential for accidental injury or mortality of these animals during works. To prevent any adverse impact on the potential commuting and foraging habitats for bats post-development, the provision of any permanent lighting on-site will require a sensitive lighting scheme. A lighting plan for the site must be functional and directional only, kept to a minimum, and service only the public areas of the proposed development (as required for safety and security). It must be achieved using baffles and screens, if necessary, to ensure no light spill on any retained or planted vegetation (including offsite vegetation, where there is potential to impact animals using nearby habitat features).

Step 3: Mitigate/Restore

To prevent local habitat fragmentation and maintain connectivity for hedgehogs, access holes of a suitable size to allow passage should be incorporated into the base of each new garden fence. Furthermore, enhancement in the form of integrated bat boxes, integrated bird boxes, native hedge planting along the boundary of the site, native shrub planting

Step 4: Compensate (On site)

All compensation opportunities have been considered. This potential increase in the multifunctional diversity of the GI components is considered to be a positive result of the proposed development.

Step 5: Compensate (off-site)

Not applicable in this case due to the scale of the proposals.

Step 6: Long Term Management

The owners will be responsible for the implementation of these enhancements and the ongoing maintenance of the enhancement features in perpetuity. Should any feature fail or become damaged, it will be promptly replaced.

5.0 Conclusion

The above stepwise GI process and assessment demonstrates that any negative impacts have been avoided and minimised wherever possible. Opportunities for enhancement have also been identified in the form of tree planting and the provision of hedgehog openings and bird boxes which will be managed long term by the applicant which, in turn, will provide long term enhancement to the GI corridors in line with the requirements of local and national planning policy.