



Land adjacent to Bay
View and Lletty Harri

PONTYPRIDD ORGANIC GROWTH
LIMITED

**GREEN
INFRASTRUCTURE
STATEMENT
APRIL 2024**

Green Infrastructure Statement

Introduction

This document has been produced in reference to the recently published updated Chapter 6 of Planning Policy Wales which sets out the policies to support 'Distinctive and Natural Places'. 6.0.1 The Distinctive and Natural Places theme of planning policy topics covers historic environment, landscape, biodiversity and habitats, coastal characteristics, air quality, soundscape, water services, flooding and other environmental (surface and sub-surface) risks.

The proposed scheme provides a number of Green Infrastructure enhancement opportunities as described in the following sections on Planning Policy, Existing Site, Green Infrastructure Strategy.

The report will provide a brief summary of the design proposals.

NATIONAL PLANNING POLICY

FUTURE WALES - THE NATIONAL PLAN 2040 (WELSH GOVERNMENT 2021)

Policy 9 Resilient Ecological Networks and Green Infrastructure of the Future Wales - The National Plan 2040 states the following with regard to 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 Policy Wales sets out a range of policies to maintain and enhance biodiversity, promote the resilience of ecosystems, including the stepwise approach, and to maximise the provision of green infrastructure. The strategic focus of Future Wales on urban growth requires an increased emphasis on biodiversity enhancement (net benefit) in order to ensure that growth is sustainable.

As the population of Wales becomes increasingly urban, the opportunity to optimise well-being benefits from green infrastructure will be greatest in and around these areas. Innovative use of nature-based solutions and integrating green infrastructure in and around urban areas can help restore natural features and processes into cities and landscapes. Providing locally accessible, high quality green spaces and corridors helps to maintain and enhance the strategic functioning of our natural resources and ecological networks and address physical and mental well-being. Local green infrastructure assets such as public rights of way, common land, parks, village greens and allotments can all make a cumulative contribution towards wider national scale ecological connectivity. The real-life importance of urban green spaces was demonstrated when people were restricted to taking exercise in immediately local green spaces during the COVID-19 lockdown.”

PLANNING POLICY WALES - EDITION 11 (WELSH GOVERNMENT 2021)

Planning Policy Wales - Edition 11 states the following with regard to green infrastructure

“Integrating Green Infrastructure and Development: “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. There are multiple ways of incorporating green infrastructure, dependent on the needs and opportunities a site presents.

Landscaping, green roofs, grass verges, sustainable urban drainage and gardens are examples of individual measures that can have wider cumulative benefits, particularly in relation to biodiversity and the resilience of ecosystems as well as in securing the other desired environmental qualities of places.”

BUILDING BETTER PLACES, THE PLANNING SYSTEM DELIVERING RESILIENT AND BRIGHTER FUTURES PLACEMAKING AND THE COVID-19 RECOVERY (WELSH GOVERNMENT 2020)

Within the above document under 'Green infrastructure, health and well-being and ecological resilience' it states the following regarding green infrastructure

“Resilient ecological networks, whilst vital for nature recovery, are also integral to our health and well-being and form part of our response to climate change. The crisis has highlighted the importance of access to green spaces and opportunities to connect with the natural and historic environment. It has highlighted that easy access and proximity to quality greenspace is severely lacking in some areas and to some sections of our communities and actions to reduce such inequalities should be prioritised as part of wider regeneration and improvement activities as a matter of social and environmental justice. At the same time it is notable how, with the advent of fewer unnecessary journeys and increased walking and cycling, biodiversity has the opportunity to thrive.

We must reverse biodiversity decline and enhance the resilience of ecosystems, as well as enable opportunities for social and economic activity based on valuing and enabling access to the natural and historic environment. The planning system has a key responsibility in securing green infrastructure, which plays a fundamental role in shaping places and our sense of well-being and is intrinsic to the quality of spaces in which we live, work and play”

Active Travel (Wales) Act (2015)

The Active Travel (Wales) Act (2015) set out that Welsh ministers must publish annual reports on the amount of active travel journeys made in Wales.

There is also a requirement for Local Authorities to identify and plan for active travel routes and increase the provision for walking and cycling, and encourage users to rely less on cars. Local highway authorities are required to give greater consideration to the requirements of walkers and cyclists and provide greater infrastructure provision to them. The act also highlights the need to build connections between key sites such as workplaces, hospitals, schools and shopping areas with active travel routes.

The Well-being of Future Generations Act (2015)

The Well-being of Future Generations Act requires public bodies in Wales to consider the long term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

The Planning Act (Wales) 2015 states that Local Planning Authorities must exercise their function in relation to the determination of planning applications “...as part of carrying out sustainable development in accordance with the Well-being of Future Generations (Wales) Act 2015 (annex 2), for the purpose of ensuring that the development and use of land contribute to improving the economic, social, environmental and cultural well-being of Wales.” (PA(W), Sec.2(2)).

EXISTING SITE

SITE CONTEXT AND LOCATION

The site is located in the North of Port Talbot between Ynys-y-Gored and Bay View. Although disused for many years, some of the site was once used as an allotment garden. The site is accessed from a Tarmac Road off Bay View which currently serves two houses below the southern perimeter of the site. An extract from Site Plan AS01 is shown below.



The following surveys have been conducted on the existing site

- Preliminary Ecological Appraisal by Acer Ecology
- Arboriculture Survey by ArbTS - Arboricultural Technician Services Ltd
- Transport Statement by DW Transportation

This statement should be read in conjunction with the following documents and drawings:

- Site Plan AS01 - SITE PLAN (appended on page 16 of this document)
- 990-HH-00-20-206 - ROOF PLAN
- 990-HH-00-20-401 - FRONT ELEVATION
- 990-HH-00-20-402 - SIDE ELEVATION
- 990-HH-00-20-403 - SIDE ELEVATION 01
- 990-HH-00-20-404 - SIDE ELEVATION 02
- 990-HH-00-20-501 - GARAGE DRAWINGS

ECOLOGICAL SURVEY FINDINGS

The survey report had these principal aims:

- To provide an initial assessment of the ecological value of the site in local context.
- To provide details supporting further surveys that may be required.
- To identify potential ecological constraints relating to the development, and recommend measures to avoid, reduce or manage negative effects, and to provide a net ecological gain.

The survey concluded that no plant species, which individually are considered to be of either of national, regional or local significance and that '*At this stage, the site's ecological value is not considered to represent a fundamental in-principal constraint*' (ref ecological survey para 4.7 page 45)

ARBORICULTURAL SURVEY

An arboriculture report was commissioned in preparation for the planning application.

A key consideration identified in the arboriculture survey related to the value of the trees located within red line boundary of the site (ref arboriculture report map on page 10 of the report).

A significant number of the trees within the current site are planned to be retained in the proposed development. Tree's of high value including T11, T12 and T16 Sessile Oak, and T1 through T10 - Swedish Whitebeam and mixed woodland G6 are to be retained within the scheme.

Trees which would be lost due to the scheme have been carefully considered, these include species considered to be of low arboriculture value including T13 and T14 (Goat willow) and group G3 (Goat willow). Within the scheme there is expected to be significant re-planting resulting in the net tree count being above the original levels on the site.

Green Infrastructure Strategy

'Green infrastructure is the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. Component elements of green infrastructure can function at different scales.... at a local scale, it might comprise parks, fields, public rights of way, allotments, cemeteries and gardens. At smaller scales, individual urban interventions such as street trees, hedgerows, roadside verges, and green roofs/walls can all contribute to green infrastructure networks'. - Planning Policy Wales - Chapter 6

Central principles to a successful development advocate a design strategy which integrates and prioritises the natural environment, as the enhancement of biodiversity and green infrastructure have direct benefits and impact on the residents. Including helping to enhance health and wellbeing, building a sense of community through improved amenity spaces and preparing for the impacts of climate change.

This approach addresses the key goals identified in The Well-being of Future Generations Act and goals for Wales and have informed the design development of the proposal.

LANDSCAPE PROPOSAL

With positive connections to nearby existing wildlife corridors the site is well positioned to support the local ecosystem through considered design decisions. The site landscape plan describes how the existing and proposed green infrastructure is integrated into the layout of the built form.

Within the scope of our design, we will include permeable paving to all hard surface areas which will look to minimise water run off to other areas of the site and surrounding area at the lower levels.

In addition, the retained trees and new planting will help with soaking up excessive rainwater and reinforcing/creating wildlife habitats. Whilst some trees will need to be lost to the proposed development, our arboricultural report identifies these trees as low value. Replacement planting will ensure that the tree count post development will be higher than the current number of trees on the site.

SOLAR PHOTOVOLTAIC (PV)

The inclusion of solar photovoltaic panels is a key design feature of each of the dwellings in the proposed development. Each dwelling is proposed to have an array of 2 panels on the western roof elevation of the garage units. Each panel is expected to have a power rating of 1 Kilowatt. The electricity generated from each panel is expected to power the domestic electricity required by the dwelling, which is to include, heat pumps, electric immersion heaters, charging of Electric Vehicles (EV), and domestic appliances. Any excess electricity generated will be exported to the National Grid.

The location of these panels can be seen on drawing ref 990-HH-XX-20-501

AIR SOURCE HEAT PUMPS

The proposed scheme features the use of Air Sourced Heat Pumps (ASHP) which extract heat from the ambient air, making them a renewable energy technology. By using heat from the air, we will reduce reliance on fossil fuels, contributing to sustainability goals and reducing carbon emissions. The ASHP in the proposed development will be highly energy efficient, typically delivering more energy than they consume. This efficiency can lead to reduced energy bills for occupants and lower operating costs over the long term.

We will look to the provision of the ASHP to provide both heating and cooling functions, offering year-round comfort in buildings. Against the backdrop of an ever changing climate, this versatility can be particularly advantageous.

Compared to traditional heating systems such as oil or gas boilers, ASHPs have a lower environmental impact. They produce fewer greenhouse gas emissions and help mitigate climate change.

The scheme is expected to use ASHPs operate quietly, minimizing noise disturbance to occupants and neighbouring properties..

In terms of operational energy use, the source of energy used to heat and power the dwelling or premises is a critical factor in determining the ongoing carbon footprint. Developments powered by electricity generated from renewable sources generated on-site, such as solar, have a lower carbon footprint compared to homes powered by the national grid using fossil fuels, such as natural gas¹.

The ASHP are expected to have an electrical rating between 0.8 Kilowatt and 6.9 Kilowatts of power, depending on the weather and other factors. We expect the heat pumps to be used in combination with underfloor heating as this maximises the thermal efficiency of the system. At the lower end of the power scale it is possible that the power requirement may be covered entirely by the proposed solar PV panels.

¹ According to the Business, Energy and Industrial Strategy (BEIS), space and water heating in buildings can account for up to 66% of the total energy consumption.

SUDS, RAINWATER HARVEST AND BIO-RETENTION SYSTEMS

A full SUDS application will be to be made after planning approval, within this application we will submit a full design to illustrate the attenuation tank to serve the site in addition to any rain water harvesting for 'grey water' for re-use.

Due to the low density of this development, there is significant scope to address any run-off issues. It is proposed that each dwelling will be equipped with a rainwater harvest tank, to minimise the impact of any runoff into the drainage network.

By implementing a successful rainwater harvest we would look to reduce the environmental impact of these dwellings as well as to promote biodiversity by reducing habitat disturbance caused by excessive water extraction from natural sources.

PROVISION OF CHARGING FOR ELECTRIC VEHICLES

The proposed development will include provision of a single charging point for an Electric Vehicle. When engineered at the design stage the provision of EV charging can more easily can be integrated into this small development. In this way the installation home EV charging infrastructure will increase the accessibility of electric vehicles to residents, encouraging more adoption EVs as their primary mode of transportation. In addition, home charging reduces dependence on Public Infrastructure: By providing home charging options, there's less strain on public charging infrastructure, reducing congestion and ensuring that public charging stations are available for those who truly need them. Charging EVs at home can contribute to reducing greenhouse gas emissions, especially if the electricity comes from renewable sources.

Finally, home charging for EV works well with provision of solar PV panels proposed as part of this scheme, in particular in the summer months when the solar gain is maximised.

Conclusion

We understand the importance of integrating green infrastructure and biodiversity enhancement into our proposals from the earliest design stages.

This statement has set out the benefits of the proposed scheme for both residents and the natural environment. The considered landscape proposal has identified and utilised existing features of the site, ensuring their preservation and enhancement in the new plans. The scheme incorporates landscape elements that not only mitigate environmental impacts but elevate biodiversity and enhance the overall amenity value of the site.

It is considered that the proposed scheme complies with the updated Chapter 6 of Planning Policy Wales which sets out the policy for biodiversity and nature.



Client:	Pontypridd Organic Growth Ltd
Project Title:	Proposed Residential Development adjacent to Bay View, Port Talbot.
Dwg Title:	Proposed Site Plan
Kerny Davies, Chartered Architect	
SCALE:	1:500 of A1
DATE:	March 2024
Issue:	Planning
Orgna:	rev.
A.S.01.	

