

Langarth Garden Village



Development Name: Langarth Garden Village

BwN Award: Design

Applicant: Cornwall Council

Location: Cornwall

Type of Project: New Garden Village, Mixed Use

BwN Assessor: Natasha Collings-Costello and Jenny Stuart, Cornwall Environmental Consultants

Key Stakeholders: Truro City Council, Kenwyn Parish Council, Langarth landowners, Truro and Kenwyn Neighbourhood Plan group, Langarth Stakeholder Panel and the Cornwall and Isles of Scilly Local Enterprise Partnership

The proposals for Langarth Garden Village see a vibrant, connected and sustainable community providing homes to people of different ages and lifestyles in a mix of housing sizes, types and tenures to meet local needs. Facilities will include new schools, health, cultural, leisure and community spaces, and innovative and flexible work areas, set within open landscapes and walkable green corridors and cycle paths.

Cornwall Council is committed to delivering on ambitious targets for new housing whilst providing a consistent and effective response to the climate and ecological emergencies, retaining Cornish distinctiveness and enabling healthy living in an emerging community. The design approach at Langarth provides a demonstration of the Council's strategic approach to placemaking and biodiversity gains for local stakeholders as defined in the Cornwall Design Guide.

The design promotes better placemaking for people and wildlife by: protecting and enhancing the historic and natural heritage that Cornwall is valued for, promoting climate resilience, providing sustainable water management, supporting resilient biodiversity, providing a healthy environment to support community wellbeing, and guarantees these benefits in the long-term through the creation of a stewardship organisation.

The BwN Design Award for the masterplan places future phases in a strong position to achieve a BwN Full Award.

A Building with Nature Design Award externally certifies that a design meets the BwN Standards and delivers high-quality green infrastructure. This award is used at an early stage of design i.e. an outline planning application in larger schemes.

Introducing Building with Nature

At Building with Nature our mission is to put high-quality green infrastructure at the heart of placemaking in the UK, maximising benefits for people and wildlife. By bringing people closer to nature and building great places for us to live, work and play, development can make a major contribution towards better health and wellbeing in our communities and tackling the climate and ecological emergencies.

Building with Nature is the first evidence-based benchmark for high-quality green infrastructure in the UK. The BwN Standards Framework has been created in partnership with planners, developers, and other key stakeholders, providing a shared understanding of ‘what good looks like’ throughout the whole lifecycle of green infrastructure – from the policy framework and early-stage design, through to implementation, and long-term management and maintenance. The BwN Standards are free to use and can be downloaded from the BwN website. Building with Nature also provide a voluntary accreditation process, helping developers and other stakeholders move through the planning process more effectively, and providing an independent verification of quality when it comes to green infrastructure assets.

This case study demonstrates how this scheme’s proposed green infrastructure meets the BwN Standards, illustrated through the BwN themes of Core, Wellbeing, Water and Wildlife.



Image 1: The proposed designs for Langarth utilise the multi-functionality of green infrastructure to deliver quality placemaking that supports people and wildlife

AHR Architects on behalf of Cornwall Council and Arcadis

Scheme Green Infrastructure Objectives

In alignment with design guidance in the Cornwall Council Design Guide, the Council has applied the BwN Standards Framework to the outline design of Langarth Garden Village. Utilising the BwN Standards and gaining a **BwN Design Award for the masterplan** provided the Council with assurance that the scheme will provide local green infrastructure solutions that support the Council’s strategic approach to placemaking, and practicably and sustainably respond to the Council’s declarations of a climate emergency, and a **commitment to deliver biodiversity net gain**, to address the ecological crisis through nature recovery.

By leading the development framework and masterplanning at Langarth Garden Village, Cornwall Council is able to provide a **practical demonstration to local stakeholders** of how high-quality green infrastructure can be designed, delivered, and maintained in new development, supporting the Council’s approach to requiring high-quality placemaking.

Langarth’s green infrastructure approach shows a strong vision for an interconnected and **multifunctional green infrastructure network**; adaptive, local, nature-based solutions to address the climate emergency; an exemplar for biodiversity gains; an integrated Sustainable Drainage Systems (SuDS) strategy that will manage surface water and maximise benefits for people and wildlife; and a dynamic strategy to deliver community health and wellbeing benefits.



Image 2: BwN Assessor Jenny Stuart, Cornwall Environmental Consultants (CEC) and Birgit Höntzsch, Senior Project Lead, Sustainable Development and Innovation, Cornwall Council. The Council worked closely with CEC to ensure the masterplan for Langarth Garden Village met the BwN Standards

CORE Standards

- Standard 1** Optimises Multifunctionality and Connectivity
- Standard 2** Positively responds to the Climate Emergency
- Standard 3** Maximises Environmental Net Gains
- Standard 4** Champions a Context Driven Approach
- Standard 5** Creates Distinctive Places
- Standard 6** Secures Effective Place-keeping

Nature sits at the heart of decision-making for Langarth. **Nature positive and climate resilient design** plays a central role in setting out a vision for development in Cornwall across key policy and guidance documents, such as the Council Strategy, Business Plan and Cornwall Design Guide, and the holistic qualitative approach to green infrastructure is embedded within the masterplanning process. Langarth is committed to delivering more multi-functionality and greater connectivity, both within the scheme and with the wider environment.

The scheme will deliver for wildlife e.g. **retaining the majority of existing green infrastructure assets** – around 40% of the development site is proposed as green infrastructure, including:

- Using the existing network of hedges and lands to provide a framework for connected and high value green infrastructure assets
- Embedding existing assets such as the river valley and the Governors Round Scheduled Monument into the network
- Providing strategic green infrastructure assets early and as a framework around development parcels
- Providing attractive green travel routes across the site, creating linkages into surrounding settlements, transport routes and facilities

Figure 1: Langarth Garden Village Illustrative Masterplan showing the extent of significant Green Infrastructure



These benefits will be safeguarded through **effective place-keeping and monitoring**. Plans to set up a Langarth Stewardship Organisation are informed by TCPA guidance.

Positive responses to climate change include reducing car reliance by encouraging active travel, landscape design that delivers shading, evaporative cooling, flood resilience, carbon storage and shelter from strong winds, and tree/hedge planting aligned with the Forest of Cornwall Initiative. The importance of **considering soils in the development** process has been acknowledged in the proposals through inclusion of a high-level soil strategy in the documents submitted for outline planning approval.

WELLBEING Standards

- Standard 7** Brings Nature Closer to People
- Standard 8** Supports Equitable and Inclusive Places

The scheme will create a distinctive new place to live, work, play and learn, across generations and in the ethos of developing a true new community. The design principles for the scheme were developed in **collaboration with a range of stakeholders**, and in reference to specific national guidance relating to Garden Community Standards. They **support healthy and active lifestyles** and a sense of wellbeing, at the individual and community level, encouraging people to connect with nature, and creating a productive and functional landscape, e.g. through education, growing food, improving access to heritage assets.

Langarth actively promotes **inclusivity**, through delivery of 35% affordable housing (for local people), as well as homes for key workers such as nurses and teachers, and extra care housing for older people and people with disabilities. The Landscape Strategy sets out a range of types of green infrastructure features with the aim of providing opportunities for all ages, different social groups, with different needs, and changing needs over



Image 3: Aerial View of the Langarth Garden Village site with the proposed Governs Park in the foreground. The Park will fulfil the function of a Suitable Alternative Natural Green Space and will be managed for biodiversity and recreational objectives

time. Disability Cornwall were consulted in order to integrate the needs of people with differing access needs into designs and the new community will be compliant with accessibility regulations.



Image 4: Designs encourage people to connect with nature to support healthy and active lifestyles and a sense of wellbeing

Cornwall Council / Arcadis

AHR Architects on behalf of Cornwall Council and Arcadis

WATER Standards

- Standard 9** Delivers Climate Resilient Water Management
- Standard 10** Brings Water Closer to People

The Langarth masterplan defines a SuDS Strategy that will manage surface water and **maximise benefits for people and wildlife**. The approach to SuDS includes a combination of measures from source control to swales to areas of standing water e.g. ponds. A new wetland landscape will be formed along the existing river corridor providing a water management, biodiversity and recreational resource, and buffering the existing corridor to prevent adverse effects. SuDS features will add interest and enhancement throughout the development.

The SuDS Strategy includes provision for **wet meadow and species rich grassland planting** which will be managed for wildlife, for example by removing woody growth which could choke the ponds, monitoring for invasive species, thinning of aquatic plants, and by removal of excessive silt.

Native tree species will be planted wherever feasible, including new woodland areas. This will contribute a cooling effect for the surrounding built environment, as well as



Image 5: Features such as permeable paving will be integrated within the built environment and contribute to the wider SuDS management approach.

bringing benefits for biodiversity, health and wellbeing. Trees will help to manage water across the site.

Throughout the site SuDS will be integral to the green infrastructure network. The proposed scheme includes a comprehensive and interconnected network of swales, infiltration features, a wetland corridor and ponds to control the flow of surface water run-off into the wider landscape catchment to not exceed greenfield run off rates. The proposed scheme utilises existing (historic) field patterns, topography and water courses, to inform the design of the SuDS Strategy, and will be constructed as early as possible to enable the successful establishment of landscaping, recognising the role SuDS can play in **drought and flood resilience**.

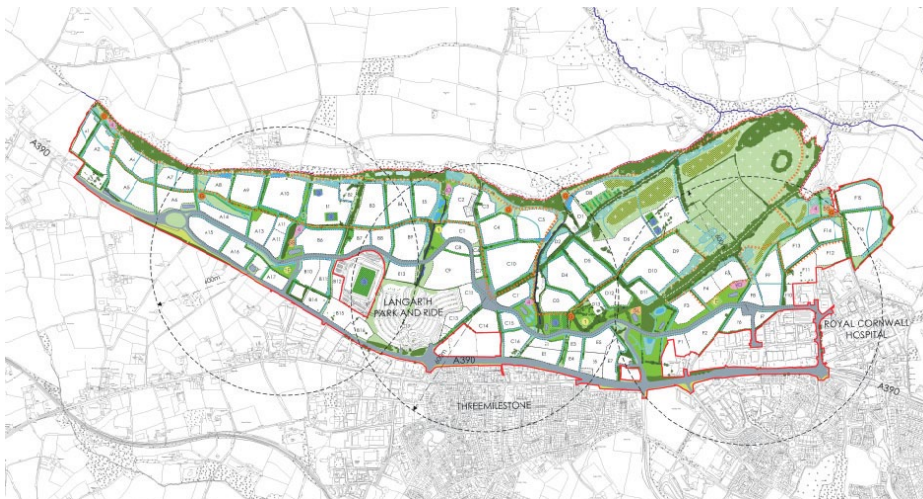


Figure 2: Langarth Garden Village Green Infrastructure Parameters Plan showing the SuDS strategy overlaid with the Green Infrastructure provisions

WILDLIFE Standards

Standard 11 Delivers Wildlife Enhancement

Standard 12 Underpins Nature's Recovery

Langarth will be delivering around **20% biodiversity net gain**, exceeding both the national mandatory requirement and local plan policy targets. The scheme seeks to protect and enhance existing on-site biodiversity, avoid negative impacts and minimise the need for restoration and compensation measures. For example, many of the existing hedges within the site will be retained and have guided the proposed layout.

There is a sensitive treatment of biodiversity gains on site in locations where habitats need to be given greater protection and/or **buffering to safeguard biodiversity net gain outcomes**, and these are included in the green infrastructure design, including trees, hedges and the river corridor.



Image 6: New Cornish hedges will be incorporated into the development to support biodiversity along with the retention of many of the existing hedgerows



Image 7: Many of the mature trees within the site boundary will be retained to support biodiversity

Proposals include for significant Suitable Alternative Natural Greenspace (SANG) to offer recreational and biodiversity benefits to the new residents. The first phase of SANG (just under 30ha) will be delivered at the start of Phase 1 of the development. Biodiversity enhancements also will be integrated into the built environment. For example, **new buildings will have integrated features such as bat, bird and bee bricks, and green roofs**. Hedgehog holes will also be required in fencing.

Green infrastructure features on the site are designed to make contiguous or steppingstone connections with existing or planned for habitats in and around the development area. At the next stage of detailed design, all plans for delivery of biodiversity net gain and nature recovery at Langarth will **reference the Local Nature Recovery Strategy**, including strategies for avoidance of harm or loss of designated or Local Sites.

Policy Applications

Langarth Garden Village Masterplan is a great example of what can be achieved through a joined-up approach supported at policy level. By setting out a clear vision for sustainable, climate-resilient development in their Council Strategy, Local Plan, Business Plan, and articulated in detail in guidance documents such as the Cornwall Design Guide, Cornwall Council have demonstrated how local government-led development frameworks can unlock



Image 8: Birgit Höntzsch and Dr Gemma Jerome FLI, Director of Building with Nature in discussion during a visit to the Langarth Garden Village site August 2021

“ Cornwall Council want Langarth Garden Village to be a vibrant, connected, sustainable and well-planned community and have worked hard to develop a scheme which will protect the environment and wildlife. Working with the Building with Nature Standards, and an Approved Building with Nature Assessor, enabled our design team to work from the landscape upwards, creating a new community that sits within a biodiverse and hard-working landscape. Our masterplan includes around 45% of green space within the site (compared with just 19% in the previous planning applications). The proposed scheme makes the most of the natural

development potential at scale, without compromising on design quality, environmental quality, or sustainable economic and environmental growth.

Summary

By placing high value on the multi-functional role of green infrastructure in delivering on multiple objectives in the Council Strategy and Business Plan, Cornwall Council was able to put nature at the heart of decision-making for the Langarth Garden Village masterplan. The masterplan meets the ambition set out in the Cornwall Design Guide for development to be green infrastructure-led and prioritise nature-based solutions to deliver against the Council's strategic objectives in relation to climate, water management, biodiversity, and public health.

By taking a holistic, qualitative approach to integrating green infrastructure, the Council enabled better overall outcomes for this new community. Alongside this, the Council's commitment to the future retention of high-quality habitats on the site, set out in the Landscape Strategy, will ensure that the approach is sustained in the long-term.

environment; maintaining existing and creating new Cornish hedges, planting trees, creating diverse, natural green space for leisure, sport, play, food growing, wildlife and nature, incorporating elements of 'eco' living and promoting high quality building design for everyone to use and enjoy. The Building with Nature Design Award demonstrates the Council's commitment to find and demonstrate good practice in implementation as well as policy setting, especially in its own schemes such as Langarth Garden Village.

Adam Birchall, Head of Planning and Housing Policy Cornwall Council

Useful Links

Building with Nature: www.buildingwithnature.org.uk

Project website: www.langarth.co.uk

Applicant: www.cornwall.gov.uk

BwN Assessor: www.cecenvironment.co.uk

Download the BwN Standards: www.buildingwithnature.org.uk/standards-form

Referenced documents: Cornwall Design Guide <https://tinyurl.com/mtpxkue2>

Garden Communities toolkit Garden communities toolkit - Guidance www.gov.uk



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