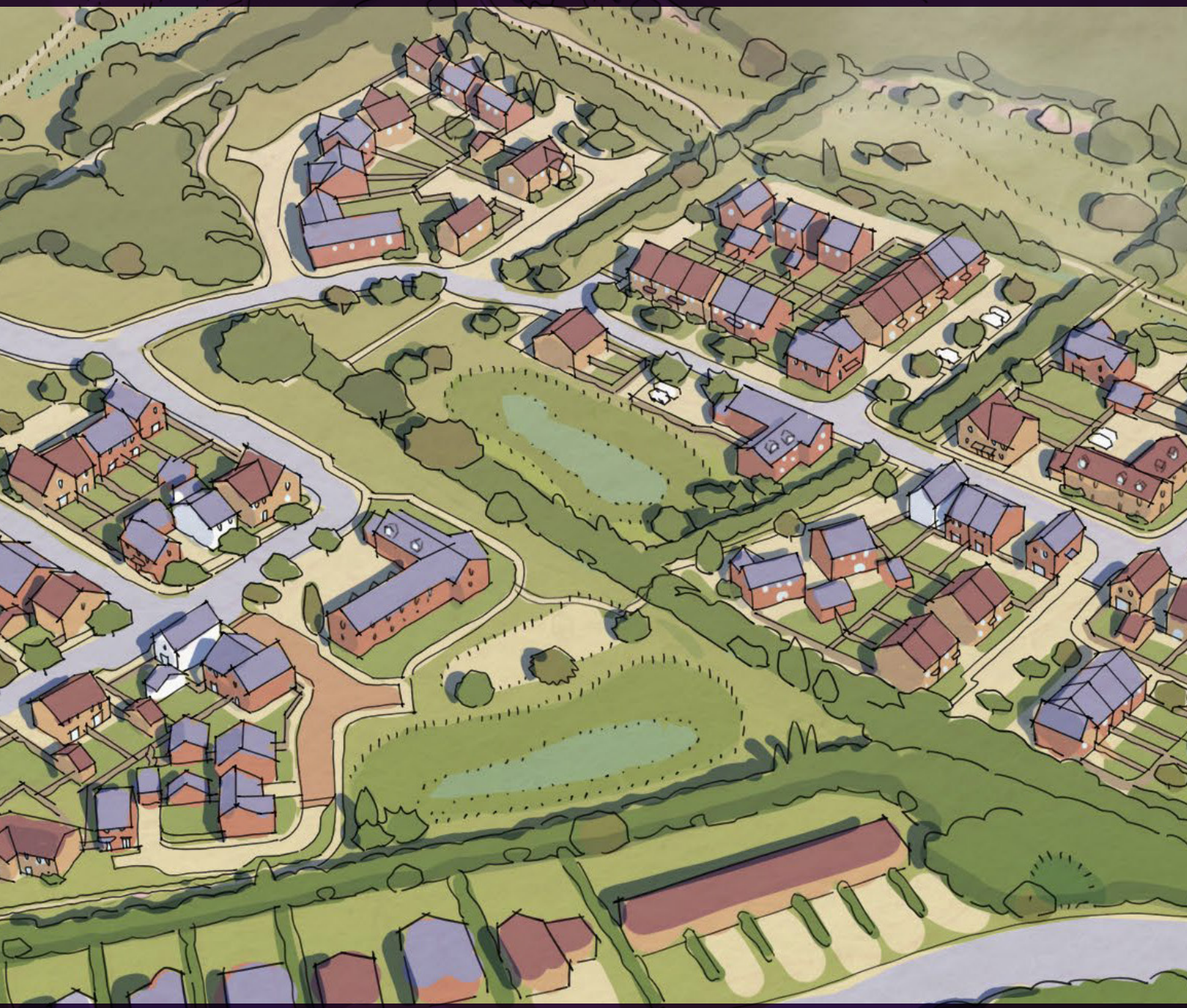
Land South of Green Road

WIVELSFIELD GREEN

Sustainability Statement



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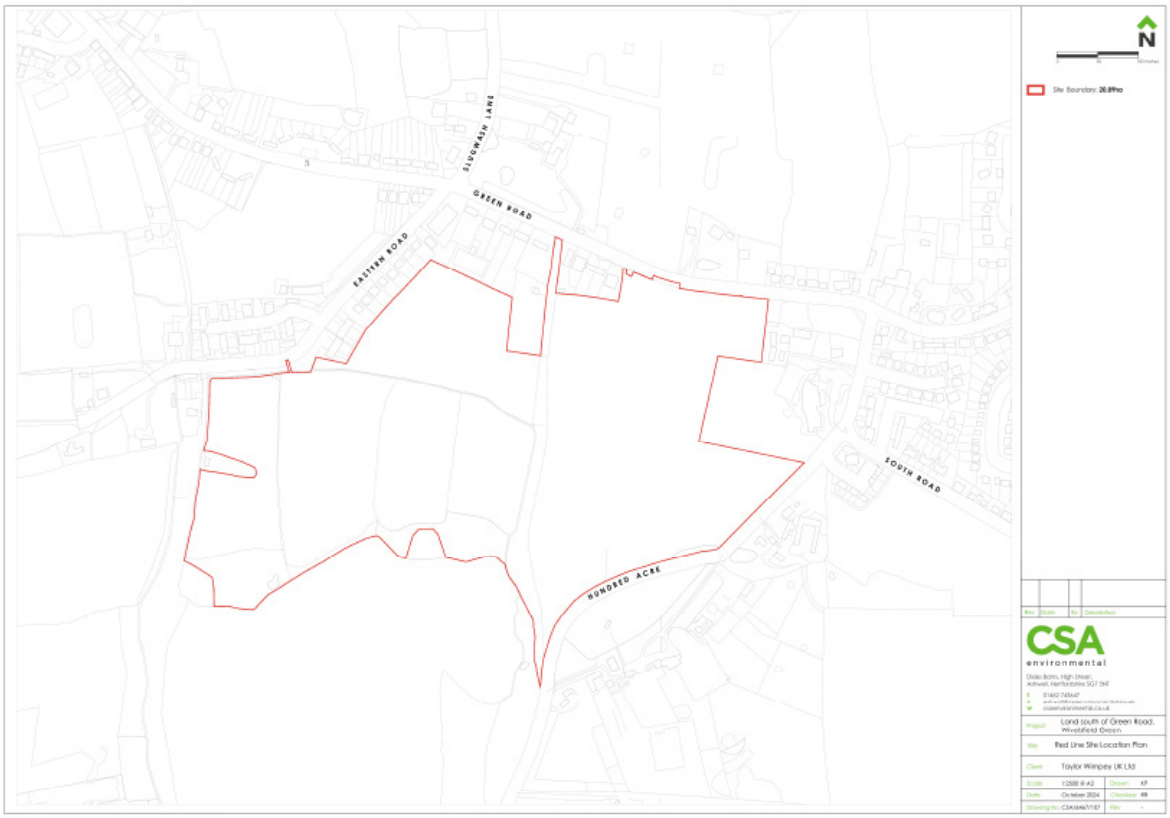
Introduction

This Sustainability Statement (the Statement) outlines how the Proposed Development ('the Development') at Land South of Green Road aligns with national planning policy and guidance, and the Lewes District Local Plan (LDLP). This Statement has been prepared in support of an outline application for the Development, which would include the delivery of up to 150 dwellings, along with associated works, parking, landscaping, publicly accessible open space, and land for education or community use, with access from Green Road and Eastern Road.

Located south of Green Road in Wivelsfield Green, the Development will be designed with key sustainability aspects central to the design. These aspects include energy and carbon reduction, climate change mitigation, adaptation and resilience, water efficiency, biodiversity, sustainable transport, and waste management. The Statement also summarises key features for health and wellbeing.



Red Line Boundary Plan

The Applicant

The Applicant, Taylor Wimpey Strategic Land, is one of the UK's leading national housebuilders, and recognise that climate change is one of the biggest challenges of our age. As part of their commitment to sustainability, Taylor Wimpey launched their Science-Based Net Zero goal in early 2023, accompanied by a detailed transition plan. Key commitments included within the Taylor Wimpey Net Zero Transition Plan are:

Delivering net zero carbon ready homes by 2025

Achieving operational net zero carbon by 2035 using carbon offsetting

Achieving Science Based Targets Initiative (SBTi) Net Zero by 2045, including a 90% absolute reduction in scope 1, 2 and 3 emissions

Commitment to innovative low and zero carbon technology, with a trial underway in real homes on a live site including enhanced fabric specification and roof mounted air source heat pumps

Increase in timber frame and offsite construction

Hybrid generators and alternative low carbon fuels used during construction

Wildlife enhancements on all new sites

Development Key Facts

The Development takes a holistic approach towards sustainability. This approach includes:

Inclusion of green spaces and landscape features to provide amenity space and play areas, opportunities for social interaction, active lifestyles, inclusivity, and wellbeing. Habitats for flora and fauna will be retained and enhanced, along with a community orchard, and provision of a 30-meter (minimum) buffer next to West Wood and Purchase Wood. Additionally, the Development will achieve a 11.54% biodiversity net gain, and ensure ongoing management.

Water consumption will be limited to 110 liters or less per person per day, with low flow fittings, and assessment of the feasibility of water recycling systems, such as rainwater harvesting.

The Development will reduce energy demand through fabric efficiency measures, lowering associated carbon emissions. Energy will be supplied using low and zero carbon technologies, with a heat-pump led strategy. Additionally, measures will be implemented to promote active travel and reduce reliance on private cars, minimizing transport-related emissions.

Dwellings will be equipped with a 7-kW electric vehicle charging point. The design of landscape features, travel routes, and open spaces will encourage active and healthy lifestyles. Accessible open spaces will be provided, including extensive play areas, informal spaces, and amenity areas. Light pollution will be minimised through thoughtful design, and high-quality materials with low embodied carbon will be prioritized throughout the development.

Water management features will be implemented through the Flood Risk and Drainage Strategy to handle increased and varied rainfall. Green infrastructure, including Sustainable Drainage Systems (SuDS) and landscape features, will be used to manage rainfall, runoff, and extreme temperatures.

Wivelsfield Green Development Framework

Legislation and Planning Policy Context

National Policy Context

National Context

The UK Government has acknowledged that climate change is a threat to our way of life and the natural world Quantitative targets have been set for reducing greenhouse gas (GHG) emissions in primary legislation, which is summarised below.

Climate Change Act 2008 and 2019 Amendment (Net Zero)

The Climate Change Act (2008) sets a legally binding target for reducing GHG emissions, in particular carbon dioxide (CO_2), by at least 80% (on 1990 levels) by the year 2050 in the UK, and a requirement that domestic emissions are reduced by no less than 3% each year.

In setting these targets, the Act established the Committee for Climate Change (CCC), which is responsible for setting binding interim targets for the Government over five-year periods. In May 2019, the CCC recommend a new emissions target for the UK: a 100% reduction ('net zero') in greenhouse gases by 2050. This change in legislation mandating a 100% reduction in CO_2 emissions by 2050 was approved by the House of Commons on 24th June 2019 and the House of Lords on 26th June 2019.

National Planning Policy Framework and Planning Practice Guidance

The NPPF which was updated in December 2024 requires developments to "take a proactive approach to mitigating and adapting to climate change." Section 14 of the NPPF 'Meeting the challenge of climate change, flooding and coastal change' emphasises the planning system's pivotal role in sustainable development through "minimising vulnerability and improve resilience to the impacts of climate change".

Paragraph 162 of the NPPF states:

> *"Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating and drought from rising temperatures. Policies should support appropriate measures to ensure the future health and resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure"*

National Planning Practice Guidance (PPG) was published in June 2014 and recognises that the planning system can "increase resilience to climate change impact through the location, mix and design of development". The guidance advises how to identify suitable mitigation and adaptation measures in the planning process to address the impacts of climate change.

Paragraph 005 of the PPG puts forwards recommendations for Local Planning Authorities to consider:

- Identifying no or low-cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity, and amenity
- Building in flexibility to allow future adaptation if it is needed, such as setting back new development from rivers so that it does not make it harder to improve flood defences in the future
- The potential vulnerability of a development to climate change risk over its whole lifetime

Local Policy Context

Lewes District Local Plan Part 1: Joint Core Strategy (2010-2030)

- The Plan Part 1 sets out the long-term spatial vision for the district, guiding development and change up to 2030. It includes several core policies aimed at ensuring sustainable development, with a strong emphasis on affordable housing and environmental responsibility.
- The Plan includes several key policies that include, affordable housing, housing type and density, infrastructure, green infrastructure, air quality, natural environment and landscape, built and historic environment, flood risk and drainage, sustainable travel, and renewable and low carbon energy.

Lewes District Local Plan Part 2: Site Allocations and Development Management Policies (2010-2030)

- The Plan Part 2 focuses on allocating land for housing and employment and sets out detailed development management policies to guide sustainable growth.
- The Plan includes several key policies which include policies on planning boundaries, rural exception sites, green infrastructure, outdoor and children's play spaces, protection of agricultural land, pollution management, land contamination, water resources and quality, noise control, biodiversity and geodiversity protection, design standards, and provisions for refuse and recycling.

Energy Demand and Supply

Overview

This section presents the Energy Strategy included in the outline planning application for the Development. It demonstrates how the development will comply with Lewes District Council (LDC) policies on energy efficiency, energy consumption, and sustainable design, as well as relevant Building Regulations and planning policies. The strategy addresses each aspect of energy efficiency and outlines how national and local policies will be followed, organised according to the requirements set by the LDC.

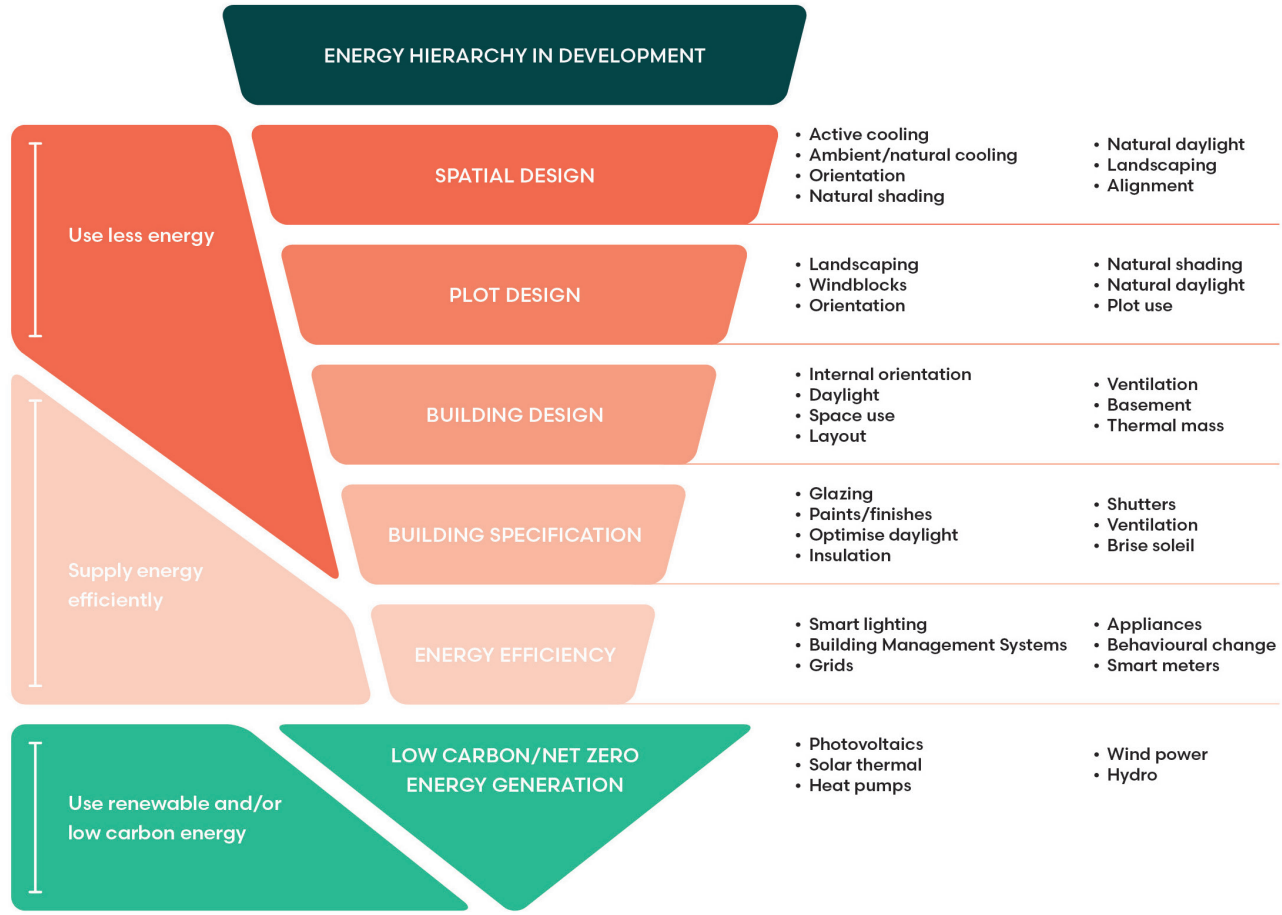
Design approaches that prioritise different energy aspects are outlined below.

Energy Aspects

Energy Demand Reduction

Reducing energy demand is often more cost-effective for saving carbon than using low or zero carbon technologies, especially with passive measures like architecture, which are simpler and last longer than active systems like building services. The Development will prioritise energy demand reduction and use a “fabric first” approach, aligning with Taylor Wimpey’s commitments and Core Policy 14. This approach focuses on making the building itself as energy-efficient as possible before adding any additional technology. Key strategies include optimising building orientation, natural ventilation, solar control, high-efficiency LED lighting, wastewater heat recovery systems, thermally enhanced lintels, ventilation control, and high thermal efficiency insulation.

Taylor Wimpey trial specification for the 2025 Future Homes Standard



Energy Hierarchy in Development

Renewable Energy and Low Carbon Technology

The Development aims to be fossil fuel-free by using only electric-based heating and hot water systems. The plan includes using Air Source Heat Pumps (ASHPs) in all houses, which take heat from the outside air to warm the inside of the building. These pumps can work with low-temperature radiators or underfloor heating and often have an electric backup for colder months. Additionally, Mechanical Ventilation with Heat Recovery (MVHR) will be used to provide fresh air while retaining most of the heat inside, reducing the overall heating demand. Renewable technologies will also be incorporated, with solar panels installed on all suitable south-facing roofs. The development will use low carbon and renewable technologies, including a heat pump-led energy strategy for heating and hot water, heat recovery systems for wastewater and ventilation, and solar panels on residential roofs.

Summary of Performance

The decision to use ASHPs has considered the likely implementation of the Future Homes Standard. The Future Homes Standard anticipates that heat pumps will become a primary heating technology for new homes, providing a route to net zero homes once the electricity grid is decarbonised.

The Development incorporates energy consumption reduction measures including the following:

- Highly insulated building fabric with external walls, floors and roofs of low U-Values to reduce heat loss
- Strong continuity of insulation at building junctions to reduce thermal bridging heat loss
- Efficient double-glazed windows
- Use of wastewater and ventilation heat recovery
- Where feasible dwellings have been designed to allow for cross-ventilation to reduce the risk of overheating and help them stay cool in warmer conditions
- Low energy lighting
- Fossil fuel free heating systems using ASHPs
- Renewable generation using PV on all appropriate roof spaces across the dwellings

The Development incorporates low carbon and renewable technology including the following:

- Heat pump-led energy strategy, providing all heating and hot water demand by low carbon technology
- Heat recovery technology to the domestic wastewater and ventilation systems
- Provision of PV panels to residential roof spaces

Biodiversity, Water and Climate Resilience

Biodiversity

The Development focuses on improving biodiversity and ecology by enhancing habitats and species. Although there are no special ecological areas within the Site, it is next to the Ancient Woodland 'West Wood'. The plan includes keeping and planting new trees and hedgerows to provide shade and reduce the need for air conditioning, making the area more comfortable. Existing trees and hedgerows will be preserved where possible, with additional planting to enhance West Wood and a 30m buffer for protection. Post-development, new habitats and hedgerows will be created, including a community orchard and diverse grassland areas, with relaxed landscape management to support wildlife.

A biodiversity net gain of 11.54% will be achieved on site.

Climate Resilience

The Development is designed to adapt to future climate changes, such as warmer, wetter winters, hotter, drier summers, and more extreme weather events like flooding. To address these issues, the design includes green infrastructure, water management systems, and water-saving features like rainwater harvesting and efficient taps and toilets. The building design also focuses on reducing overheating and increasing energy efficiency with features like smart glazing and natural ventilation. These measures ensure the development is future-proof and resilient to climate change.

Water Efficiency

- The Development will be designed to use water efficiently and handle climate change impacts.
- A Flood Risk Assessment and Drainage Strategy has shown that the Site is in Flood Risk Zone 1, which means it is at low risk of flooding.
- To prevent surface water flooding, the Development will control runoff to natural levels and include extra measures for climate change.
- Dwellings will be designed to limit water consumption to 110 litres or less per person per day.

Sustainable Travel

Sustainable Travel

The Site is well-connected to public transport, with nearby train stations at Wivelsfield and Burgess Hill offering direct services to London and Brighton. Multiple bus stops around the Site provide connections to local towns. The area has good pedestrian and cycle routes, making it easy to access local amenities. To reduce single-person car journeys, the development will promote car sharing and provide public transport information. There will be new access points for cyclists and pedestrians on Green Road and Eastern Road, connecting to a wider network within the development. A Travel Plan will be implemented, including Welcome Packs and Community Noticeboards with information on sustainable transport options. Secure cycle parking and a Bicycle User Group will encourage cycling. Additional measures like improved street lighting and pedestrian routes will be added as the design progresses.

A 7kW electric charging point will be fitted to dwellings.

Waste and Materials

Resource Efficiency

The Development will focus on using materials efficiently to reduce carbon emissions and waste. Materials that cannot be reused or recycled become waste, so the development will include measures to conserve resources and manage waste effectively as per the Waste Hierarchy. The process of extracting, making, and transporting materials adds to carbon emissions, so choosing materials carefully is important.

The development will follow waste regulations to minimise waste and manage it properly. This includes using materials with recycled content, low carbon concrete, and sourcing materials locally to reduce transport impacts. The design will allow for easy replacement of parts and reuse of materials. Timber will be sourced sustainably, and the design will focus on durability and flexibility. Occupants will be encouraged to manage waste sustainably with features that help minimize waste.

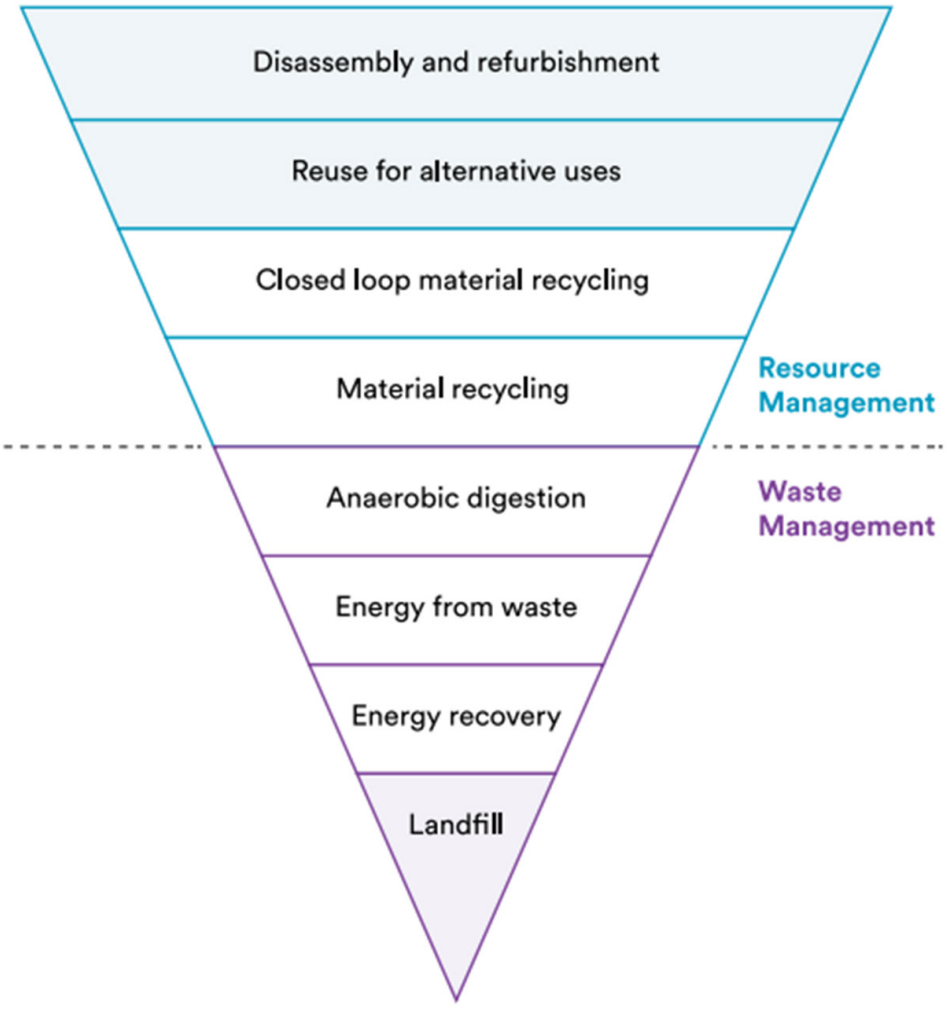


Figure 2: The resource hierarchy (Source: David Greenfield, 2013)

Health and Wellbeing

Overview

The planning application for the Development is accompanied by a Health Impact Assessment (HIA). The HIA seeks to identify and assess the potential health effects of the Development and provide Lewes District Council (LDC) with information on the health implications of the Development as part of the decision-making process.

Assessment

The health effects of the Development have been assessed using best practice guidelines and relevant policies. The assessment focused on key health themes such as housing quality, access to healthcare and social services, open space, air quality, noise, accessibility, crime reduction, healthy food access, work and training opportunities, social cohesion, resource use, and climate change.

Key design measures within the Development relating to health and wellbeing include:

- Provision of enhanced traffic-free pedestrian and cycle routes, including green corridors
- A proposed community orchard
- Provision of a range of open spaces for play and amenity
- Ensuring inclusive and accessible design throughout
- Providing homes rated EPC B through a fabric first approach to energy efficiency
- Meeting Healthy Streets Indicators by providing high quality walking, cycling and travelling routes
- Access via active travel modes to local amenities and facilities
- Access to work and training

The results show that the development is expected to have neutral to positive health effects. To further reduce any potential negative impacts, several measures are proposed, including financial contributions to local public services, promoting green spaces, designing safe lighting and landscaping, implementing a Travel Plan and electric vehicle charging, and following a Landscape Management Plan and Construction Environmental Management Plan (CEMP).

Summary

The Development at Green Road, Wivelsfield Green has taken a holistic approach to sustainable development. The design is based on sustainable design and construction principles and is informed by national and local policy and industry best practice. This Sustainability Statement highlights the credentials of the Development, centred around key sustainability aspects of climate change mitigation, adaptation and resilience, nature and biodiversity, health and wellbeing, travel and transport, resource efficiency and social value. The Development responds to the objectives of the LDLP and will facilitate sustainable, active and healthy lifestyles by providing opportunities for a balanced community, active and sustainable travel as well as delivering efficient homes powered by low carbon energy.

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