Gleeson Land Limited – November 2025

REPORT
Savills Earth

Land at Newlands Farm, Arborfield Sustainability Statement for Outline Planning Application

savills earth

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Contents

01. Executive summary

Overview of the project and results

Savills Earth has been appointed by Gleeson Land Limited to prepare a Sustainability Statement to support the outline planning application for the proposed development of Land at Newlands Farm, Arborfield, Loddon Valley Garden Village (LVGV).

This outline planning application seeks permission for the development of Arborfield. The proposal includes up to 430 dwellings, a corridor for vehicles, buses, cycles, and pedestrians linking Mole Road to the northern site boundary and connecting to the proposed spine road, as well as a new pedestrian and cycle link between Byway ARB03 and ARB08. The scheme incorporates strategic landscaping, green and blue infrastructure, biodiversity enhancements achieving at least a 10% net gain, and associated utilities and engineering works. All matters are reserved except for the principal vehicular access from Mole Road.

This report provides detail on the sustainable design features of the development and demonstrates how they relate to relevant planning policy guidance as listed below:

- National Planning Policy Framework (2024)
- Wokingham Borough Council Development Plan (2014)
- Arborfield and Barkham Neighbourhood Plan (2019)
- Wokingham Borough Council emerging Local Plan (2023-2040)

A comprehensive sustainability framework has been developed for Arborfield to guide the design process and ensure the delivery of a future-ready, environmentally responsible community. The proposals demonstrate a strong commitment to sustainable development, meeting and, where appropriate, exceeding national and local policy requirements.

The Land at Newlands Farm, Arborfield and the Loddon Garden Village Sustainability Framework

Sustainability, placemaking and inclusive development are the foundation for creating communities that thrive. To bring these principles to life, a comprehensive sustainability framework has been designed to ensure the project is thoughtfully planned, responsibly built and future-ready.

The framework developed for the Loddon Garden Village (LGV) masterplan was crucial in securing the overall site's allocation and provides the foundation for the design process, guiding each stage of the journey, from initial concepts and planning through to construction and occupation. Built on a set of measurable and ambitious sustainability targets, this approach ensures that each phase not only meets but exceeds the standards needed to drive real benefits to local communities.

Energy
The project aspires to achieve net zero emissions through a 'fabric first' approach in addition to implementing energy-efficient systems. The scheme will utilise fossil fuel-free heating and hot water solutions and renewable energy generation technologies will generate clean energy on-site, offsetting the site's energy consumption.

Whole Life Carbon
The scheme will also assess and minimise whole life carbon, comprising regulated, unregulated and embodied carbon emissions. Resource efficiency and circular economy principles will be prioritised.

Resources
Waste management and water conservation strategies will be implemented. The scheme is delivered as part of the LGV vision, which also focusses on protecting green spaces, preventing soil erosion and promoting sustainable transportation to reduce environmental impact.

Human-centric Design
The residents' wellbeing will be prioritised with a human-centric approach. Accessibility and safety will be promoted. As part of the LGV vision, sustainable food production and green infrastructure to improve air quality will also be encouraged. The plan will include a range of housing options supporting diverse socio-economic backgrounds and multigenerational living.

Landscape & Ecology
Sustainable drainage and flood risk has been accounted for, including an allowance for climate related changes to rainfall patterns.
A biodiversity strategy will promote biodiversity net gain, enhance ecosystems by creating diverse habitats and use drought-resistant plants. Native species will be prioritised to support local wildlife.

Sustainable Transport
The plan aims to enhance active travel by ensuring amenities are within walking or cycling distance. The scheme will promote electric vehicle (EV) ownership through strategically located charging stations and integrated charging infrastructure. Public transport hubs and a cycling network delivered as part of the LGV masterplan will decrease reliance on private cars.

02. Introduction

Short introduction and objectives of the report

Savills Earth has been appointed by Gleeson Land Limited to prepare a Sustainability Statement report to support the outline planning application for the proposed development of Land at Newlands Farm, Loddon Vallery Garden Village (LVGV) in Wokingham.

Site location

LVGV will deliver a thriving new community within the proposed development site, which currently is comprised of farmland with semi-natural and amenity grassland, copses and woodland, and associated buildings.

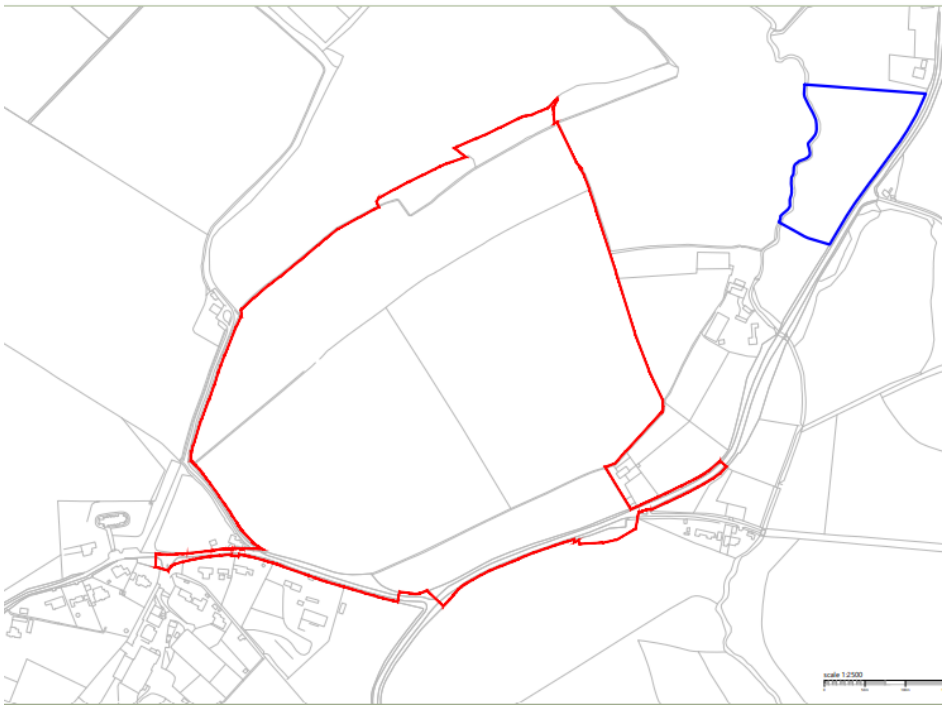
The site is located in the southeastern corner of the overall Arborfield site, which is situated north of Arborfield and west of Wokingham, with Shinfield bordering it to the west. The Thames Valley Science Park is located northwest, and it is close to employment hubs like Reading International Business Park and Green Park Business Park. The M4 motorway to the south provides excellent connections, along with nearby roads such as Shinfield Eastern Relief Road, Arborfield Relief Road, and Winnersh Relief Road. The nearest rail station is Winnersh, about 3km northeast, with Reading station approximately 7km north and Green Park station 6km west. Access is available from the A327 Reading Road to the south and Mole Road to the east. The surrounding area is mostly rural or suburban, except for the Thames Valley Science Park with its larger buildings.

Application

The outline application for the development of Land at Newlands Farm as part of Loddon Valley Garden Village, Arborfield , comprises of:

- up to 430 dwellings
- Vehicular, bus, cycle and pedestrian corridor between Mole Road and the northern boundary of the site,

Location of the site (marked in red)



connecting to the proposed Loddon Garden Village spine road;

- New pedestrian and cycle link between Byway ARB03 (Carter's Hill Lane) and Byway ARB08 (Ellis's Hill);
- Comprehensive strategic landscaping and network of multi-functional green and blue infrastructure,
- Biodiversity enhancements to achieve at least a net gain of 10%.
- Associated utilities, infrastructure, and engineering works.

All matters reserved other than details for the approval of the principal vehicular access from Mole Road.

Report Objectives

- Demonstrate how the proposed development will exceed the sustainability standards set by the existing Wokingham Borough Development Plan, emerging Wokingham Borough Local Plan and the National Planning Policy Framework (NPPF);
- Identify areas for consideration at the early stages of this project to facilitate the incorporation of the principles of sustainable design and construction into the design of the proposed development;
- Draw on technical arrangements and conclusions of the project consultancy team, where these are relevant to the issues of sustainability to enable this complex issue to be adopted fully; and
- Develop the Sustainability Statement in line with the NPPF and alongside the suite of documents submitted as part of this application to demonstrate how the proposal fulfils the planning requirements.

Illustrative masterplan of the proposed development

03. Planning context

Outlining planning context and requirements

National Planning Policy Framework (December 2024)

The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. At the heart of the NPPF is a presumption in favour of sustainable development. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives).

An economic objective

To help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.

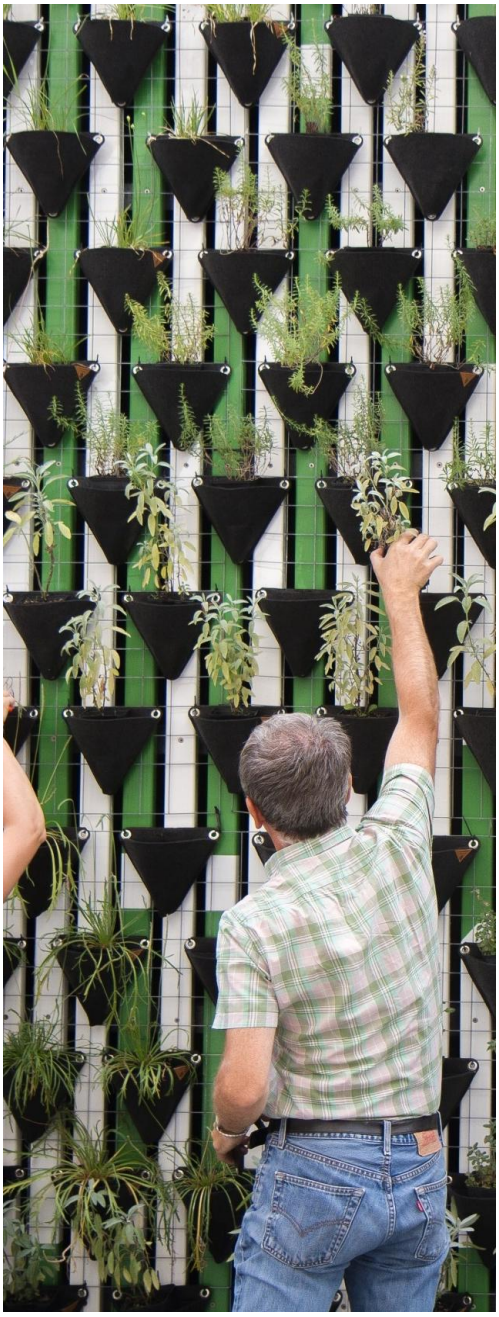
A social objective

To support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.

An environmental objective

To contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating adapting to climate change, including moving to a low carbon economy.

This sustainability statement has been developed in line with the NPPF and alongside the suite of documents submitted as part of this application fulfils the requirements.



Wokingham Borough Development Plan (2014)

Policy CC04: Sustainable Design and Construction

The policy states that planning permission will only be granted for proposals that demonstrate high-quality, sustainable design and construction. New homes must target Code for Sustainable Homes Level 4 with a water use limit of 105 litres per person per day, non-residential developments over 100 sqm must meet BREEAM standards and statutory water requirements, and all developments must include appropriate on-site waste and recycling facilities.

Policy CC05: Renewable Energy

Support for local renewable energy is encouraged, with a minimum 10% reduction in carbon emissions required for projects over 10 dwellings or 1,000 sqm.

Policy CC06: Noise

The policy states that proposals must evaluate noise impacts and conduct assessments to protect sensitive areas.

Policy CC09: Development and Flood Risk

Flood risk must be considered at all planning stages to avoid unsuitable developments. Projects in Flood Zones 2 or 3 need to assess flood vulnerability, employing a sequential approach to minimise risk.

Policy CC10: Sustainable Drainage

All developments should manage surface water sustainably, incorporating Sustainable Drainage Systems (SuDS) and ensuring no adverse effects on the public sewer system.

Policy TB08: Open Space Standards

Development that reduces open space must comply with the National Planning Policy Framework, providing on-site recreational areas. Residential standards include specific green space and facility requirements per population.

Policy TB23: Biodiversity and Development

The Policies Map identifies sites of national or international significance. Development proposals must adhere to policy CP7 – Biodiversity of the Core Strategy and incorporate design features that promote biodiversity.

Right Homes, Right Places – Wokingham Borough emerging Local Plan (2023 - 2040)

Policy SS1: Sustainable development principles

The policy sets out key sustainable development principles to encourage proposals to contribute across economic, social and environmental objectives.

Policy SS13: Loddon Valley Garden Village

The policy includes the allocation at Loddon Valley Garden Village, and sets out development, place shaping and delivery principles.

Policy CE1: Design principles for efficient buildings

The policy lists a sequence of considerations that must be made and demonstrated through an Energy and Sustainability Statement, to ensure developments effectively apply the energy hierarchy. These considerations include in priority order:

- building orientation to optimise solar gain and minimise heat loss; efficient building form to enhance thermal performance;
- use of low-impact, durable materials to reduce both operational and embodied carbon;
- heat supply systems that avoid direct fossil fuel use;
- and on-site renewable energy generation sufficient to meet total annual energy demand

Policy CE3: Environmental standards for residential development

The policy is seeking to secure net zero residential developments through detailing energy and water standards. Residential development is expected to

- generate at least the same amount of renewable electricity on-site as it demands over the course of a year;
- achieve a site average space heating demand of around 15-20kWh/m^2/year;
- achieve a site average total energy demand of 35 kWh/m^2/year, through a 'fabric first' approach to construction. No single dwelling is to have a total energy demand in excess of 60 kWh/m^2/year, irrespective of amount of on-site renewable energy production.
- minimise their impact on the water environment by incorporating practical measures such as greywater recycling, rainwater harvesting, water-saving technologies, permeable surfacing, and, where appropriate, green roofs or walls.

Policy CE4: Supporting a circular economy

The policy states that residential development proposals of 10 dwellings or more, or non-residential development proposals of 1,000m^2 or greater, will be required to submit a circular economy strategy as part of the Energy and Sustainability Statement. Where proposals includes the demolition of existing buildings or structures, the circular economy strategy should include a pre-demolition audit.

Policy CE5: Embodied carbon

The policy states that residential development proposals of 50 dwellings or more, or non-residential development proposals of 5,000m^2 or greater, must demonstrate what measures have been taken to reduce embodied carbon, and major new build schemes should identify steps taken to reduce the development's impact on embodied carbon (for example regarding design and materials), through a whole-life carbon assessment following a nationally recognised Whole Life-Cycle Carbon Assessment methodology.

Policy CE7: Low carbon and renewable energy generation

The policy defines conditions for energy generating schemes, supporting those of appropriate size and scale, with no unacceptable impacts on landscape, biodiversity, agricultural land quality and food production, heritage assets, the character of the area and residential amenity. It also requires a minimum 10% biodiversity net gain and an end-of-life strategy.

Policy C1: Active and Sustainable Transport and Accessibility

Development proposals should promote active and sustainable transport, prioritising walking, cycling, and public transport. They should include inclusive infrastructure and support electric vehicle use. An accessible transport system for all ages and abilities is a priority, optimising connectivity and making active travel the first choice for short trips.

Policy C3: Active Travel

Proposals must encourage active travel, focusing on walking, wheeling and cycling. They should enhance pedestrian routes to ensure safety and accessibility, improve wayfinding and support cycling through better public spaces and facilities.

Policy C5: Parking and Electric Vehicle Charging

Development proposals should provide adequate vehicle and cycle parking, considering accessibility needs.

Electric vehicle charging points must be included, and retrofitting in existing areas is encouraged. Residential developments of 10 or more units must submit an Electric Vehicle Charging Strategy.

Policy FD1: Development and Flood Risk

Proposals must address all flood risks, including historic flooding and climate change, aligning with national policy and the Strategic Flood Risk Assessment. Developments in Flood Zones 2 or 3 must consider vulnerability, and a site-specific Flood Risk Assessment is required for areas with known flooding issues.

Policy FD2: Sustainable drainage

Proposals should manage surface water sustainably and replicate greenfield runoff characteristics. SuDS must be included in residential developments of 10 or more dwellings, unless infeasible.

Policy NE1: Biodiversity and geodiversity

Development must protect and enhance valuable biodiversity and geodiversity features, incorporating ecological surveys and management plans while avoiding habitat fragmentation.

Policy NE4: Trees, woodland, hedges and hedgerows

Proposals must protect existing trees and hedgerows and ensure their integration into the landscape, with sufficient space for growth. Any affected trees must be assessed, and mitigation is required for visual or conservation value losses.

Policy HC4: Open Space, Sports, Recreation, and Play Facilities

Development affecting open space and recreation facilities will only be permitted where existing provision is surplus, suitable alternatives are available, or the proposal supports the site's primary use, with new developments encouraged to support shared community use. Residential schemes must provide or contribute to open space and recreation in line with policy standards, with off-site financial contributions and long-term maintenance arrangements agreed with the council where on-site provision is not feasible.

Policy HC1: Promoting Healthy Communities:

This policy focuses on fostering vibrant and safe communities through quality environments and local services that enhance health and wellbeing. Development proposals must assess their impact on residents' health and include strategies to promote healthier communities. A Health Impact Assessment (HIA) is necessary for residential developments with 10 or more units and non-residential projects exceeding 1,000 m^2.

Building Regulations Approved document Part G (2015)

Part G of the Building Regulations provides guidance on the supply of water to a property, including water safety, hot water safety, supply, sanitation and water efficiency.

The current version is Part G 2015 (with 2016 amendments) and contains the following key criteria in relation to water efficiency:

- Reasonable provision made by the installation of fittings and fixed appliances that use water efficiently for the prevention of undue consumption of water.

04. Energy

Energy strategy, passive & active design measures

A preliminary energy strategy has been established for the proposed development of Land at Newlands Farm, Arborfield, aligning with Wokingham Borough Council's priorities to minimise carbon dioxide emissions and target a net zero carbon development.

The strategy will focus on adapting to climate change by reducing greenhouse gas emissions through efficient energy use and renewable alternatives. The proposed scheme aims to reduce carbon dioxide emissions as much as feasible, aspiring to achieve the net zero target of the council, with further details to be provided in future reserved matters applications.

The energy strategy will adopt the energy hierarchy approach: first, reducing energy demand through passive and efficient design measures, then, supplying energy in the most efficient and low-carbon way possible and finally, meeting remaining energy needs with renewable sources.

Passive Design Features

The design will aim to include the following passive measures:

- Optimised orientation and massing of the buildings
- Low air permeability and high thermal performance.
- Incorporation of natural ventilation
- Optimised glazing and solar control windows

Energy Efficiency Measures

The goal is to create energy-efficient buildings without relying on complex systems for low carbon output. The selected energy systems equipment will aim to reduce energy consumption.

Active systems will be incorporated to decrease energy demand, which could include:

- All-electric systems such as heat pumps for heating and hot water;
- Mechanical ventilation with heat recovery efficiency;
- LED lighting to lower energy consumption.

The energy hierarchy

Building Regulations baseline

Use less energy and manage demand

Exploit local energy resources and supply energy efficiently and cleanly

Maximise opportunities for renewable energy

Optimisation and Renewables

To support its ambition for a low-carbon, energy-efficient community, Land at Newlands Farm, Arborfield is exploring a range of innovative technologies and strategies that optimise energy use and maximise the benefits of renewable generation. These measures are designed to reduce reliance on the national grid, enhance energy resilience, and support the transition to net zero carbon living. Key proposals include:

- District Heating Network (DHN) Integration: A DHN may be implemented to distribute low-carbon heat from a central energy centre to multiple buildings around the local and district centre. This approach enables efficient heat generation and delivery, particularly when integrated with renewable sources, and supports long-term decarbonisation of heating.
- Smart Microgrid: In parallel, a SmartGrid is being considered to enable the sharing of locally generated electricity, such as from solar PV and battery storage, across the site. Operating behind a central boundary meter, this system would allow for real-time energy balancing, reduce grid dependency, and improve the overall efficiency of renewable energy use.
- Photovoltaic (PV) panels: Solar panels are proposed for installation on suitable roof spaces throughout the site. These will generate clean, zero-carbon electricity to offset grid demand and support the site's energy needs.
- Battery Energy Storage Systems (BESS): Community-scale battery storage will be considered to store excess solar energy and release it when needed. This will help balance supply and demand, reduce peak-time grid reliance, and enhance the effectiveness of the SmartGrid.
- Energy Monitoring: All homes will be equipped with smart meters to allow residents to track and manage their energy use in real time.
- Future-Proofing: The viability and installed capacity of PV and BESS systems will be confirmed at the reserved matters stage, ensuring flexibility to adapt to evolving technologies and energy demands.

Further details, recommendations and performance limits for the proposed residential energy strategy are detailed in the Climate Change Statement in the energy strategy section, accompanying this application. Furthermore, it includes projections of potential carbon dioxide emissions savings.

05. Whole life carbon

Understanding the whole life carbon of the scheme, circular economy principles

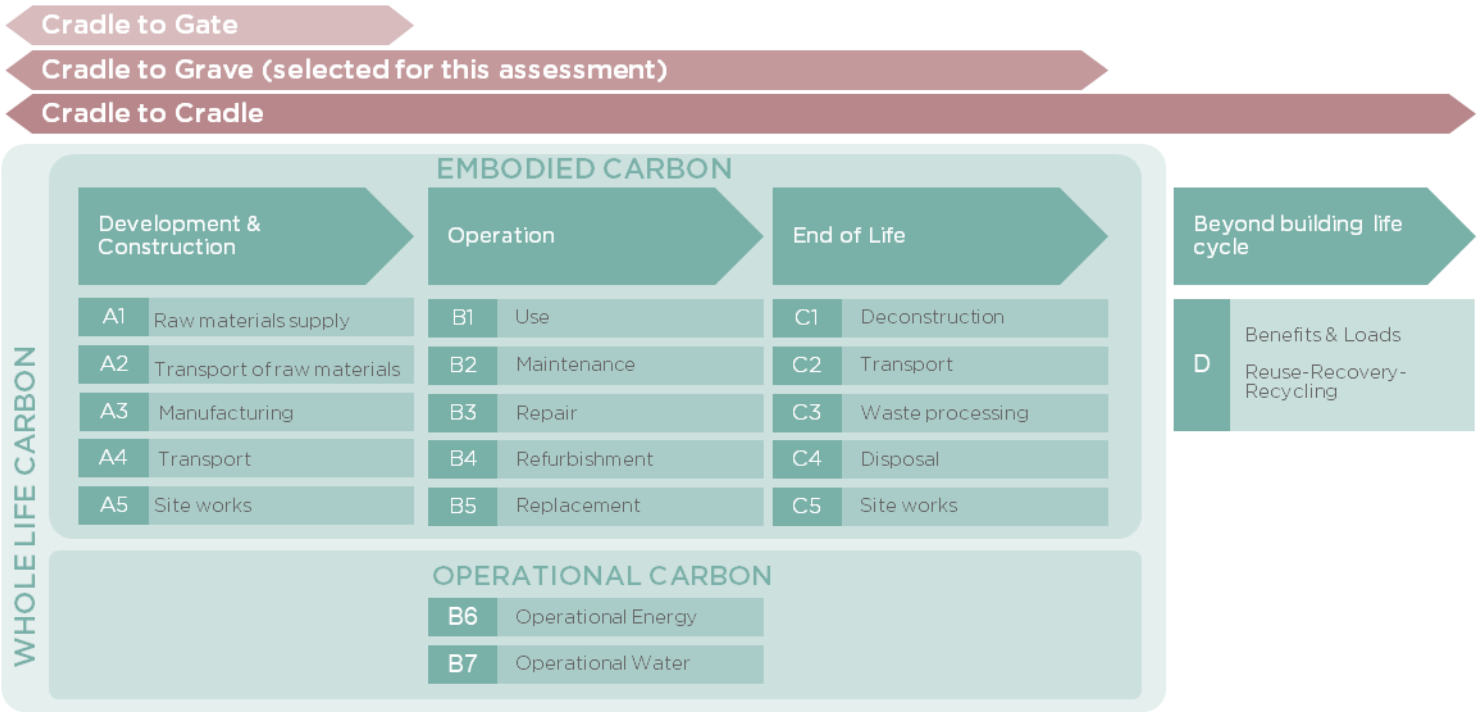
In line with best practice, a whole life carbon design approach will be considered to minimise the carbon footprint associated with the construction and materials of the buildings throughout the building's lifetime.

Whole life carbon comprises operational carbon and embodied carbon. While the previous section presents the measures to reduce operational carbon, this section provides a description of the holistic thinking, and the sustainable and circular economy practices and design options that can be implemented to reduce the whole life carbon of the development.

There are four life cycle models which account for each stage in the life of a typical project outlined in the diagram below. These include:

- Module A1-A5: Product sourcing and construction phase
- Module B1-B7: Use stage
- Module C1- C4: End of life stage
- Module D: Benefit and loads beyond the system boundary

The different stages of the building assessment (LETI Embodied Carbon Primer)



Land at Newlands Farm, Arborfield is proposed to follow the below Whole Life Carbon reduction principles:

- building in layers – ensuring that different parts of the buildings are accessible and can be maintained and replaced where necessary;
- designing out waste – ensuring that waste reduction is planned in from project inception to completion, including consideration of standardised components, modular build, and reuse of secondary products and materials;
- designing for longevity;
- designing for adaptability or flexibility;
- designing for disassembly;
- using systems, elements or materials that can be reused and recycled.

Building design, form, layout, orientation and construction should help to reduce resource requirements and create long-lasting high-quality homes that are efficient and resilient.

In addition to that, the layout should be designed with adaptation and changing local and national policy and Building Regulations requirements in mind to ensure longevity.

Buildings and homes should be constructed from high quality durable materials, while allowing for adaptation and flexibility, with the ability for interior layouts to be adapted and changed over time.

The scheme will aim to limit their total embodied carbon to <625 kg of $kgCO_2$ /m^2 for the residential areas, in line with the RIBA 2030 Climate Challenge, 2030 design target. To ensure this target is met, a monitoring framework will be implemented throughout the design and construction phases. This will include the use of Whole Life Carbon assessments at key project stages (RIBA Stages 2, 4, and post-completion), supported by recognised tools such as One Click LCA or equivalent. The design team will maintain a materials database aligned with material passports and Environmental Product Declarations (EPDs), enabling transparent reporting and verification. Regular reviews will be conducted to track progress against the RIBA 2025 target, and findings will be documented in the Sustainability Statement and post-construction evaluation.

06. Resources

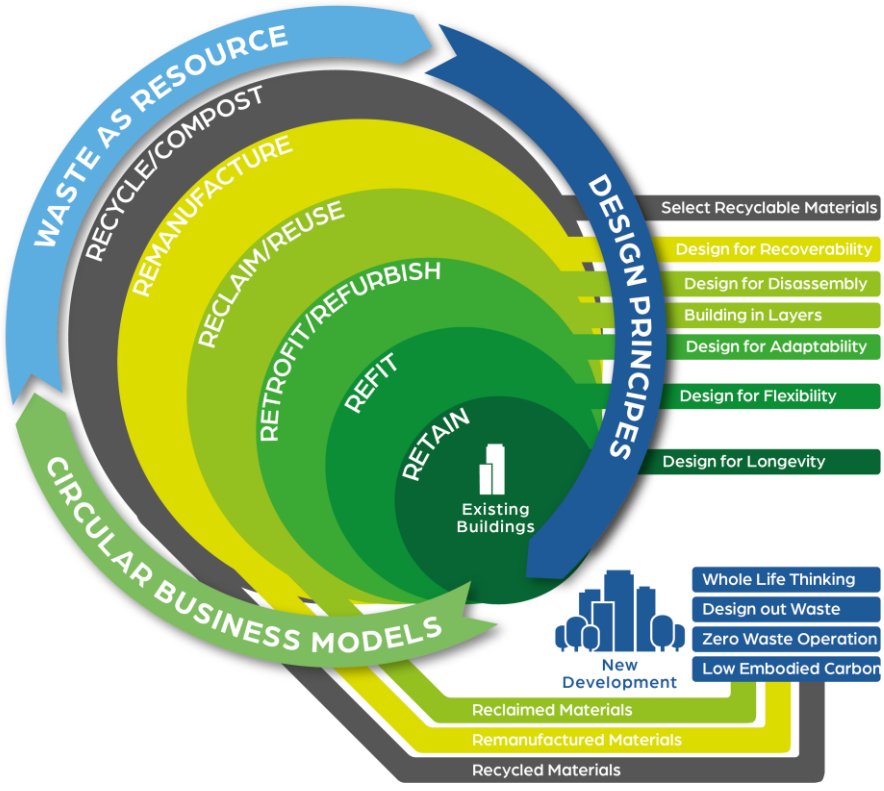
Understanding construction material choices, waste reduction and reduce water stress

The proposed development at LVGV embraces circular economy principles to minimise waste, reduce embodied carbon, and promote long-term resource efficiency. Circular thinking involves retaining materials in use at their highest value for as long as possible, and this approach will inform both the design and construction phases of the scheme.

Key strategies include reducing the quantity of materials required through techniques such as Design for Manufacture and Assembly (DfMA), and prioritising materials that are responsibly sourced, locally available, and have Environmental Product Declarations (EPDs). Cement replacement products, such as fly ash and ground granulated blast furnace slag (GGBS), will be specified where possible to reduce the embodied carbon of concrete, with admixtures used to optimise performance. All timber will be FSC (or equivalent) certified, and materials will be selected to support reuse, recycling, and recovery at the end of the building's life.

In line with Wokingham Borough Council's emerging Local Plan policies, sustainable procurement and waste management will be prioritised. Municipal waste facilities will be provided for future residents, and construction waste will be minimised through best practice measures. The design will also consider longevity and low maintenance, with materials chosen for durability and compatibility with reclaimed or salvaged elements where appropriate.

Together, these measures support a circular economy approach that reduces environmental impact, enhances material efficiency, and contributes to the overall sustainability of the development.



Circular economy hierarchy

Waste strategy

A site waste management plan, will be prepared at future detailed stages of the development and will demonstrate the need to lessen the overall impact of waste generation through prevention, minimisation, reuse and recycling of materials from the construction phase of the development.

Waste from the construction phase

The Developer or Principal Contractor(s) are advised to enrol the construction site with the Considerate Constructors Scheme (CCS), a nationally recognised initiative that promotes best practice beyond statutory requirements. Participation in the CCS demonstrates a commitment to minimising the impact of construction on the local community, environment, and workforce. It encourages responsible site management, improved communication with neighbours, and enhanced safety and welfare standards. For Loddon Valley Garden Village, CCS registration would support the project's sustainability and social value goals, helping to foster positive relationships with stakeholders and uphold a high standard of professionalism throughout the construction phase.

Waste generated during the construction phase of the proposed development will be sorted into various waste categories, with designated areas provided on-site for recycling materials such as timber, metals, packaging, and hardcore. Recognising space constraints on construction sites, full segregation may be impractical onsite and may be carried out off-site by a suitable waste contractor if necessary.

Contractors will be required to agree on waste recovery rate targets as a condition of the contract, which will be discussed during the initial contract meeting. Regular monitoring reports will track progress towards diverting waste materials from landfill in accordance with the agreed targets.

Waste from the operational phase

Each dwelling will include adequate internal waste storage containers to encourage the separation of recyclable and compostable materials at the point of disposal.

Externally, adequate space will be allocated to accommodate waste containers in accordance with the local policy requirements and refuse and recycling collection procedures.

Water Consumption

In the UK, water use has increased by over 50% in the last 25 years, straining natural resources like reservoirs and rivers, impacting wetland habitats.

The proposed development aims to achieve a target of under 105 litres per person per day, in line with Wokingham Borough Council's policies. Strategies include low-flow fixtures, such as dual flush toilets that save over 33% compared to standard cisterns and flow restrictors that reduce water flow while maintaining pressure.

Wokingham Borough Council encourages a goal of 85 litres per person per day, achievable with efficient fittings. Additionally, rainwater collection systems could be installed in each house, allowing the use of collected rainwater for gardening and internal use for the WC.

Indicative fittings flow rates to achieve the 105 l/p/d water consumption target can be found within the Climate Change Statement, submitted with this outline planning application.

07. A human-centric design

Environmental quality and comfort, health and wellbeing, sustainable lifestyles and sustainable mobility

Environmental quality and comfort

Healthy living environments impact residents' physical, mental, and social well-being while also fostering economic growth and reducing healthcare costs. The development will seek to provide a comfortable and sustainable environment that enhances occupant satisfaction.

Thermal comfort

Adequate thermal comfort will be achieved through operable windows and appropriate thermal zoning and use of thermostats.

Further detail on overheating mitigation strategy for the proposed homes can be found within the Climate Change Statement, submitted as part of this outline application.

In future reserved matters applications, an overheating assessment will be carried out for a representative sample of units using the CIBSE TM59 design methodology for the assessment of overheating risk in homes.

Noise and vibration

The noise and vibration assessment for LVGV evaluates the potential impacts during both the construction and operational phases of the project. The assessment was carried out in accordance with national standards and best practice guidance, including BS 5228 for construction noise and vibration, BS 4142 for industrial and commercial sound, and the Design Manual for Roads and Bridges (DMRB) LA 111 for road traffic noise. Baseline noise conditions were established through a detailed unattended noise survey conducted at multiple locations across the site.

During the construction phase, noise and vibration are expected to vary depending on the type and location of activities. The most significant impacts are anticipated during the early stages of site clearance and earthworks. However, with the implementation of a robust Construction Environmental Management Plan (CEMP), which includes best practice measures such as the use of low-noise equipment, restricted working hours, and real-time monitoring, these impacts can be effectively managed. With these measures in place, construction noise and vibration effects will range from negligible to minor adverse and are therefore not considered significant.

In the operational phase, the development includes residential uses only, and no significant noise sources are anticipated beyond traffic. Predicted changes in road traffic noise due to the development are minimal, with worst-case increases assessed as negligible under DMRB LA 111 criteria. Consequently, operational noise effects are considered not significant.

The assessment also reviewed cumulative impacts from nearby developments and concluded that, provided mitigation measures are implemented, and construction activities are coordinated, cumulative noise effects are unlikely to be significant.

Climate change implications were considered, particularly the potential for residents to open windows more frequently for ventilation in warmer conditions. However, the development will incorporate passive and active overheating mitigation strategies to reduce reliance on open windows, thereby minimising acoustic discomfort. Overall, the approach ensures compliance with planning policy and supports a healthy acoustic environment, contributing positively to resident wellbeing.

Air quality

The air quality assessment for LVGV evaluates the potential impacts of the scheme during both the construction and operational phases. The assessment was carried out in accordance with national legislation, planning policy, and best practice guidance, including those from Defra, the Institute of Air Quality Management (IAQM), and Environmental Protection UK (EPUK). It considers the effects of dust and particulate matter during construction, as well as emissions from traffic during the operational phase.

During the construction phase, activities such as demolition, earthworks, construction, and vehicle movements have the potential to generate dust and particulate matter (PM10 and PM2.5). A risk-based assessment following IAQM guidance concluded that, without mitigation, the site presents a high risk of dust impacts due to the scale of the works and proximity of sensitive receptors. However, with the implementation of a comprehensive Dust Management Plan (DMP) as part of a CEMP, including best practice measures such as dust suppression, site layout planning, and regular monitoring, the residual effects are expected to be negligible and not significant. These measures will also help to minimise any cumulative effects from nearby developments under construction.

The operational phase assessment focussed on traffic-related emissions of nitrogen dioxide (NO_2), PM_{10}, and $PM_{2.5}$. Dispersion modelling using ADMS-Roads predicted pollutant concentrations at existing and proposed receptors for peak construction (2032) and full operation (2040). Results show:

- Annual mean NO_2 concentrations at all receptors are well below the objective of 40 $\mu g/m^3$.
- PM_{10} and $PM_{2.5}$ concentrations are significantly below their respective objectives.

- Short-term objectives for NO_2 and PM_{10} are also expected to be met.

The change in pollutant concentrations at existing receptors is categorised as **negligible**, and predicted concentrations at proposed receptors confirm the site is suitable for residential use. Overall, operational air quality effects are considered **not significant**.

The assessment also considered cumulative impacts from nearby developments and concluded that, with effective implementation of mitigation measures across all sites, cumulative effects during construction will be minimal and **not significant**. During operation, traffic from the wider Loddon Valley Garden Village and other committed developments was included in the modelling, and impacts remain negligible. Climate change implications were reviewed, and future improvements in vehicle technology and emissions standards are expected to further reduce pollutant levels over time. The approach ensures compliance with planning policy and supports a healthy living environment for future residents.

Visual comfort and natural light

While detailed daylight and sunlight performance values have not yet been calculated at this stage, the design intent prioritises high levels of visual comfort through thoughtful building orientation, massing, and window placement. Generously sized windows will be incorporated into the façades of homes to maximise the availability of natural daylight throughout the day, reduce reliance on artificial lighting, and enhance occupant well-being.

Particular attention will be paid to ensuring living areas and primary bedrooms receive adequate daylight, with consideration given to glare control and privacy.

The overarching approach will also consider factors such as solar gain, shading devices, and the use of light-coloured finishes internally to further enhance daylight penetration and visual comfort in a balanced and sustainable way.

Accessible, inclusive and adaptable design

Homes will be designed to provide a high standard of internal and external space that supports a range of household needs over time. This includes layouts that enable ease of movement, adaptability for changing mobility needs, and consideration for step-free access where possible. The design approach will promote inclusivity and support long-term independent living for all residents, including those with limited mobility or additional access needs.

Community consultation

At least two structured rounds of consultation will be undertaken with residents, local groups, and stakeholders during key stages of the project's evolution. These sessions will take place in accessible locations and formats to ensure inclusive participation. A minimum of three organisations - such as schools, local charities, community centres, or business forums - located within 1.5 miles of at least two project sites will be specifically engaged to provide targeted insights into local issues and opportunities.

The consultation will include a variety of engagement methods, such as:

- Public exhibitions and drop-in events
- Online surveys and digital engagement tools
- Stakeholder workshops or focus groups
- Targeted outreach to under-represented communities

The goal is to ensure a broad cross-section of the community is heard, including young people, older residents, and those with limited access to traditional consultation methods.

Feedback mechanisms

To support a two-way dialogue, feedback mechanisms will be embedded throughout the consultation process. These may include comment forms, interactive mapping tools, facilitated discussion sessions, and online platforms that allow community members to respond to emerging proposals. All feedback will be collated, reviewed, and - where feasible - influenced design decisions.

A clear and transparent audit trail will be maintained, summarising how community input has informed the development process. Where appropriate, longer-term mechanisms such as Community Liaison Groups or Design Review Panels may be established to provide continuity of input throughout planning, construction, and early occupation phases.

Secured by design

The development incorporates the principles of Secured by Design (SBD) from the earliest stages of the design process to help create safe, resilient, and inclusive environments. While formal certification may not be sought in all cases, the design approach reflects SBD guidance to ensure that physical security and crime prevention are considered holistically and proportionately.

Key considerations include:

- Natural surveillance: Building layouts, streets, and public spaces are designed to encourage passive surveillance from homes, improving visibility and reducing opportunities for anti-social behaviour.
- Clear definition of public and private space: Boundaries and access points are clearly defined through landscaping, lighting, and built form to promote a sense of ownership and territoriality.
- Secure access: Entrances to buildings, communal areas, and parking are designed to be visible, well-lit, and, where appropriate, controlled or overlooked.
- Material and specification choices: Doors, windows, lighting, and boundary treatments are selected to meet a reasonable standard of robustness and durability, contributing to the physical security of individual homes and shared facilities.
- Landscape and lighting strategy: External spaces are designed to feel safe and well-maintained, with consistent lighting and unobstructed sightlines to reduce concealment and promote confidence in the public realm.

The overall objective is to create a built environment that not only deters crime and anti-social behaviour but also supports community cohesion, legibility, and long-term stewardship.

Local amenities

The project benefits from a well-connected location with convenient access to a range of everyday services and facilities. Within walking distance, typically considered a 10- to 20-minute walk, residents will be able to reach multiple local amenities, supporting sustainable, more active lifestyles and improving overall quality of life.

Key amenities accessible via safe and direct pedestrian routes include a selection of the following:

- A Post Office
- ATMs or retail-based services, available 24 hours a day.
- A general medical practice or NHS GP surgery, providing accessible primary healthcare services.
- A pharmacy, offering both prescriptions and everyday health needs.
- A supermarket or grocery store, ensuring access to fresh food and essential household goods.

The site's proximity to these services helps to promote walkability, social inclusion, and health and well-being, particularly for families, older adults, and those without access to private transport. The layout and movement strategy for LVGV will support this by integrating safe, legible, and attractive pedestrian and cycle routes that link seamlessly with the existing infrastructure.

Foster a Sense of Community

Social interactions are promoted by the landscape design and masterplan of Loddon Garden Village.

Specifically, the below green spaces will be created as part of the overarching LGV masterplan, in accordance with Policy HC4:

- c.86.1 Ha Natural Green Space
- c.1.1 Ha Community Orchards, Gardens and Allotments
- c.20.6 Ha Amenity Green Space
- c.8.7 Ha Parks and Gardens

In addition to the above Informal play provision will be integrated into the landscape as part of the wider play 'trails' and routes as well as incorporating sculptural elements. Also, a mix of formal and informal play provision will be included, using natural materials and planted features to integrate play areas into the wider landscape and ensure they relate sensitively to the surrounding environment.

Public Space Quality

Public and communal spaces will be designed to be well-connected, clearly visible, and easily accessible to all users. These spaces will also prioritise safety, be easy to maintain, and incorporate appropriate measures to ensure a secure and welcoming environment for the community.

08. Landscape & ecology

Understanding the impact of flooding, SuDs and the ecological value of the site

In line with Wokingham Borough Council's existing and emerging local plan and the NPPF, the proposed development at LVGV has been designed with a holistic approach to managing flood risk, surface water drainage, ecology, and landscape. This integrated strategy ensures that environmental resilience, biodiversity enhancement, and placemaking are embedded from the outset.

Flood Risk Assessment

A flood risk assessment and drainage strategy has been prepared by Abley Letchford Partnership Limited to provide an overview of the modelled flooding impacts for the development of Land at Newlands Farm as part of LVGV.

The site lies entirely within Flood Zone 1, indicating a low probability of flooding from rivers or the sea. The Environment Agency's mapping confirms that the site is not at risk from fluvial, reservoir, or sewer flooding, and only localised areas are susceptible to surface water flooding, primarily along existing ditches and low-lying areas. These risks have been fully accounted for in the masterplanning process.

Thus, a sequential approach can be taken to masterplanning for the Loddon Garden Village with development focussed in areas of Flood Zone 1 and with less vulnerable and water compatible uses in areas of potential flooding. Within the floodplain areas the development strategy will embrace the opportunities for enhancing biodiversity, amenity value and access routes along the river corridor.

Overall, the FRA demonstrates compliance with the National Planning Policy Framework, Wokingham Borough Council's Local Plan policies, and CIRIA SuDS Manual guidance.

Surface Water Drainage Strategy

Sustainable Drainage Systems (SuDS) are an essential tool for managing surface water in a sustainable and resilient manner. The following SuDS features have been integrated into the masterplan:

- Attenuation Basins;
- Permeable Paving;
- Swales;
- Filter Drains;
- Bioretention Systems;
- Sub-surface Storage;
- Use of Existing Natural Ditches and Watercourses.

These measures will work together to manage runoff effectively, enhance biodiversity, and provide amenity benefits. Given the site's underlying London Clay, infiltration is limited; therefore, the strategy focuses on attenuation and controlled discharge to existing watercourses. Surface water runoff will be restricted to greenfield rates, ensuring no increase in flood risk either on or off-site.

The drainage system will be designed to accommodate a 1 in 100-year storm event plus a 40% climate change allowance, in line with Environment Agency guidance.

This ensures resilience under future climate scenarios. Exceedance flows during events beyond this design standard will be routed safely along streets and into landscaped corridors, avoiding property flooding. Water quality will be addressed through a SuDS treatment train following the CIRIA C753 Simple Index Approach, providing multiple stages of filtration before discharge to the existing ditch network.

Long-term maintenance and adoption will be secured through appropriate arrangements at the detailed design stage.

Further information can be found in the Climate Change Statement submitted as part of this application.

Ecology

The site at LVGV supports a wide range of important ecological features, including habitats and species that present constraints to the delivery of the proposed development.

Importance Ecological Features with the potential to be affected (either positively or negatively) by the Proposed Development have been identified through a comprehensive desktop study and field survey work undertaken by EPR between 2022 and 2025. This work informed the evaluation of baseline conditions in relation to biodiversity, as well as the iterative design process for the Proposed Development.

The Importance Ecological Features scoped in for detailed impact assessment include: off-Site areas designated for nature conservation; onsite woodlands; veteran trees; hedgerows and bats.

An assessment of the likely significant effects of the Proposed Development on Important Ecological Features has been undertaken, taking into consideration inherent mitigation measures to be delivered as part of the Proposed Development. Likely significant effects in the construction phase include direct harm to species and loss/fragmentation of habitats. During the operational phase, likely significant effects include disturbance.

Key mitigation measures to be delivered include the implementation of a CEMP, lighting strategy, buffer zones, contribution to the wider Loddon Garden Village SANG strategy and implementation of habitat creation and management plans.

Residual positive effects remain in respect of improving retained and created habitats for biodiversity and provision of additional roosting opportunities for bats during the operational phase of the Proposed Development. These effects will act cumulatively with other committed schemes and will result in a long-term positive effect at the Local level

In line with draft policy NE1 and SS13 of the Wokingham Borough Council Update Local Plan, and the Biodiversity Net Gain Regulations an assessment has been made of the potential for the Proposed Development to deliver biodiversity net gain. This has been measured using the statutory metric, indicating that the Proposed Development is predicted to result in a net gain of at least 11.19 area habitat units (20.81%), and 8.59 hedgerow units (45.19%).

Further gains of up to 18.91 area habitat units (35.17%) and 11.73 hedgerow units (61.73%) can be achieved if amenity planting is implemented.

Landscape Strategy

The Landscape Strategy for LVGV builds upon the site's existing natural features and responds to the findings of the Landscape and Visual Impact Assessment. It adopts a landscape-led approach, integrating green infrastructure and enhancing the rural character of the Arborfield and Barkham Settled and Farmed Clay area.

Key elements include:

- Retention and protection of key features, including all ancient woodland and mature trees, with a minimum 15 m buffer to safeguard root systems and canopies.
- Retention of existing hedgerows wherever possible, with limited removal for access and new planting to reinforce the landscape structure and improve connectivity.
- A network of green corridors that connect and frame development parcels, supporting pedestrian, cycle, and wildlife movement, and incorporating SuDS features for sustainable drainage.
- Multi-functional open spaces, including natural greenspace, play areas, and areas for food growing, integrated with biodiversity enhancements and species-rich grassland.
- Street tree planting along the spine road and within residential streets, creating a strong landscape structure and improving visual amenity.
- SuDS basins designed as positive landscape features, providing visual interest, biodiversity benefits, and opportunities for natural play.
- Strategic planting of native and drought-tolerant species, contributing to climate resilience and carbon sequestration.

Illustrative Masterplan

- Green corridors and connected habitats to improve ecological permeability and support species adaptation to future climate conditions.

The site benefits from strong visual containment provided by mature vegetation and surrounding landform, which limits wider views of the development. Strategic planting within green corridors and open spaces will further soften views over time, ensuring the scheme integrates sensitively into its setting.

Overall, the strategy aims to create a resilient, connected, and biodiverse landscape that supports sustainable transport, ecological health, and community wellbeing.

09. Sustainable transport

Sustainable transport, Electrical Vehicles and active transport infrastructure

The proposed development has been designed to promote sustainable transport in line with Wokingham's Borough Council's emerging local plan. The NPPF also encourages local authorities to support "a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport" and "gives priority to pedestrian and cycle movements with access to high quality public transport facilities".

Active Travel

The development adopts a Healthy Streets and LTN 1/20 compliant approach, ensuring safe, direct, and attractive routes for walking and cycling. A Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) was undertaken to audit existing routes and identify gaps in connectivity to local destinations. The findings informed the masterplan design and the wider LVGV Active Travel Strategy.

Key features include:

- Direct walking and cycling links to key facilities within the wider LVGV, including primary and secondary schools, local centres, employment areas, and open spaces.
- North–south pedestrian/cycle route along the spine road, providing a continuous link to the proposed primary school, district centre, and supermarket.
- East–west pedestrian/cycle route connecting across the site, linking to PRoW ARBO3 and the proposed secondary school to the west, and open space to the east.
- Additional connections on the northern boundary, providing access to PRoW ARBO3 and adjoining green spaces.
- Integration of WBC's Greenway Route A, delivering a 3m wide shared-use path between Mole Road and Church Lane, with an equestrian-friendly section and a controlled crossing at Ellis' Hill to link to wider Greenway and PRoW networks.
- Pedestrian and cycle infrastructure within the Gleeson parcel, designed to connect seamlessly with the LVGV network.
- Cycle parking for every dwelling and secure cycle facilities at bus stops to support multimodal journeys.
- Healthy Streets principles embedded in the spine road design, including segregated footways and cycleways, raised side street entrances, and traffic calming to prioritise pedestrian and cycle movement.
- Financial contributions to wider active travel infrastructure, including off-site improvements to Greenway routes and footway widening on Reading Road.

These measures will enable walking and cycling to become the preferred modes for local journeys, reducing car dependency and supporting healthier lifestyles.

Public transport

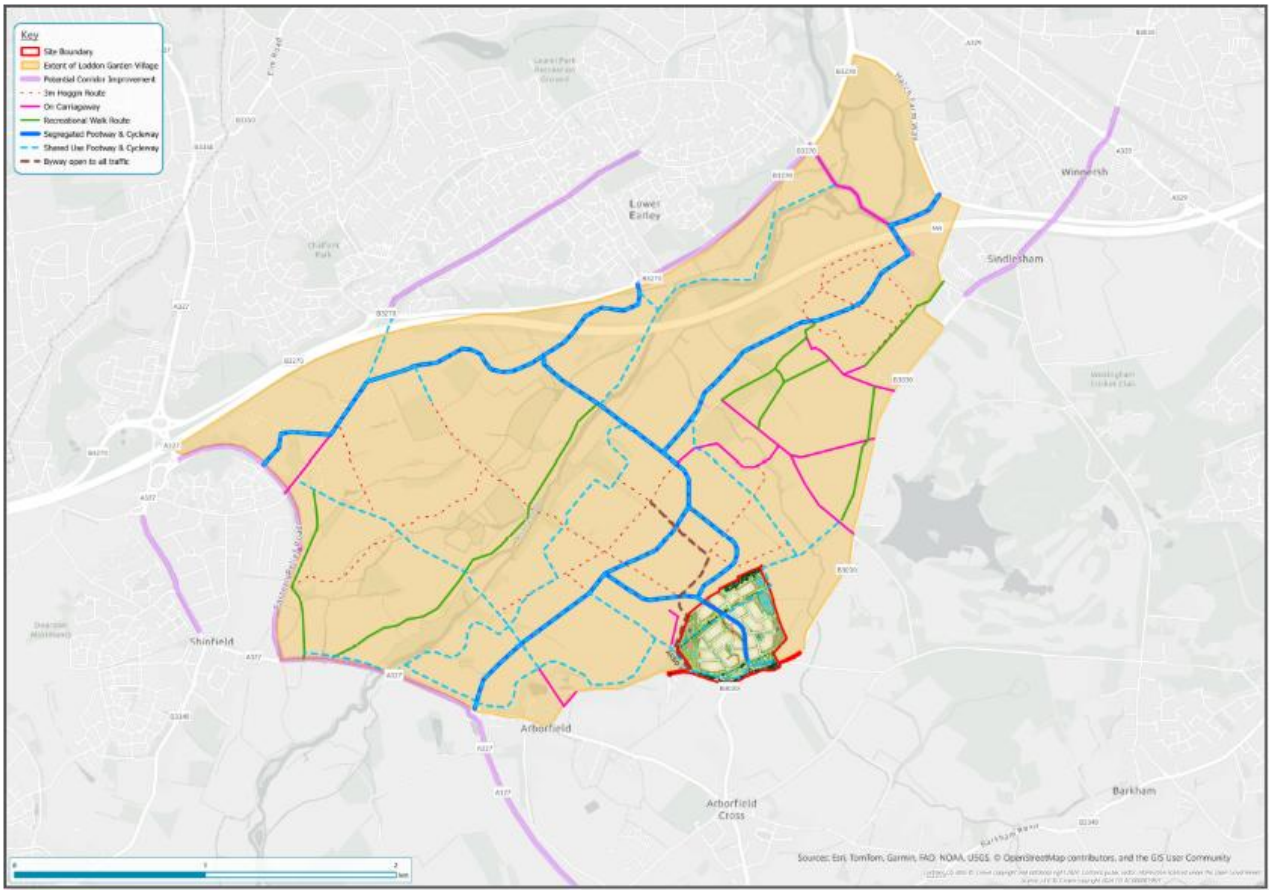
The site will benefit from a phased public transport strategy, ensuring access to frequent bus services from first occupation and integration with the full LGV network as later phases come forward.

Key features include:

- New 30-minute frequency bus service from the outset, connecting the site to Winnersh Station and Wokingham, with potential onward routing to Reading.
- Interim bus stop on Mole Road, within 400m of most dwellings, with cycle parking to support sustainable multimodal travel.
- Future-proofed infrastructure, enabling integration with the LVGV spine road bus route and mobility hub in later phases.
- Bus route through the centre of LVGV, with stops located within 400m of almost all dwellings, providing direct access to Reading and Wokingham.
- Direct access to rail services via bus connections to Winnersh (3.4 km), Wokingham (4.3 km), and Reading (7.7 km), offering frequent services to London, Gatwick, and regional destinations.
- Travel Plan incentives, including bus taster tickets, £100 public transport vouchers for new households, and promotion of apps such as MyJourney Wokingham and Reading Buses.
- Car club provision, with an electric vehicle available from early occupation, reducing the need for second car ownership.
- EV charging points for all homes, supporting the transition to low-emission vehicles.

These measures will ensure reliable, convenient public transport from the outset and strengthen connectivity as LVGV facilities and services come forward, reducing car dependency and supporting WBC's modal shift objectives.

Active Travel Strategy



10. Conclusion

A summary of the holistic sustainable approach

The Land at Newlands Farm, Arborfield at LVGV Outline Sustainability Statement demonstrates a clear and ambitious commitment to delivering a sustainable, resilient, and future-ready community. The proposals align with the National Planning Policy Framework and both the existing and emerging Wokingham Borough Local Plan policies, embedding sustainability principles throughout the design, construction, and operational phases of the development.

This Statement has addressed six key areas of sustainability: energy, whole life carbon, resources, human-centric design, landscape and ecology, and sustainable transport. Together, these themes form a comprehensive framework that supports the creation of a low-carbon, inclusive and environmentally responsible neighbourhood.

The development aspires to achieve net zero carbon through a fabric-first approach, efficient energy systems, and the integration of renewable technologies. Whole life carbon and circular economy principles have been embedded to reduce environmental impact across the building lifecycle. Resource efficiency, sustainable material choices, and water conservation strategies further reinforce the development's environmental credentials.

A strong emphasis has been placed on human wellbeing, with design strategies that promote comfort, accessibility, and community cohesion. The masterplan integrates green infrastructure, biodiversity enhancements, and flood resilience measures, while also supporting active travel and public transport to reduce car dependency.

As the project progresses, these strategies will be refined and expanded through future reserved matters applications. The approach outlined in this Statement provides a robust foundation for delivering a high-quality, sustainable development that responds to local needs and contributes positively to broader environmental and social goals.

Savills Earth

Savills Earth provides a full suite of energy and sustainability services across both the built and natural environments. Savills Earth consolidates our established lines of business and expertise to provide the very best in environmental, social and economic sustainability advice to our clients. With over 100 specialists in the team we provide implementable solutions that respond to the climate emergency.

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