



BLENHEIM ESTATE

HOMES

Land East of
Park View
Woodstock

Sustainability Statement





RIDGE

**LAND EAST OF PARK VIEW,
WOODSTOCK SUSTAINABILITY
STATEMENT**

December 2024

SUSTAINABILITY STATEMENT: LAND EAST OF PARK VIEW

December 2024

Prepared for

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CONTENTS

1. EXECUTIVE SUMMARY	2
2. INTRODUCTION	9
2.1. Site Location	9
3. SUMMARY POLICY REQUIREMENTS	10
3.1. International Policy	10
3.1.1. United Nations 2030 Agenda for Sustainable Development	10
3.2. National Policy	10
3.2.1. National Planning Policy Framework (NPPF), July 2021	10
3.3. Regional and Local Policy	12
3.3.1. 2020 Climate Action Framework – Transforming Cherwell	12
3.4. Cherwell Local Plan 2011-2031	13
3.4.1. Policy ESD 1: Mitigating and Adapting to Climate Change	13
3.4.2. Policy ESD 2: Energy Hierarchy and Allowable Solutions	14
3.4.3. Policy ESD 3: Sustainable Construction	14
3.4.4. Policy ESD 5: Renewable Energy	15
3.4.5. Policy ESD 6: Sustainable Flood Risk Management	15
3.4.6. Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment	16
3.4.7. Policy ESD 17: Green Infrastructure	17
3.4.8. Policy SLE 4: Improved Transport and Connections	17
4. SUSTAINABILITY APPROACH	19
4.1. Aligning with Net-Zero Carbon	19
4.2. Step 1 – Reduce Operational Energy Use	20
4.3. Step 2 – Increase Renewable Energy Supply	21
4.4. Green and Active Travel	22
4.5. Biodiversity	23
4.6. Sustainable Construction Materials and Waste	25
4.6.1. Sustainable Construction	25
4.6.2. Water use and Flood Risk	27
4.6.3. Flood Risk and Surface Water Runoff	27
4.7. Voluntary Standards for Sustainability.	27
5. CONCLUSION	28
6. APPENDICES	29
6.1. Appendix a Land East of Park View Housing Development Energy Statement	29

1. EXECUTIVE SUMMARY

This Sustainability Statement has been prepared for Blenheim Estate Homes (BEH) to support the outline planning application at land east of Park View, Oxford Road, Woodstock for up to 500 dwellings, open space, and associated works. This report provides an assessment of the sustainability initiatives that are being undertaken on the project, in line with and often exceeding the standards set out in both national and local planning requirements.

BEH recognise that as long-term landowners, they have a responsibility to their local communities. Delivering a sustainable development is fundamental to meeting that social, moral and economic responsibility. BEH are committed to upholding these high standards through focus on design, community, wellbeing, materials sourcing and environmental impact. Sustainability is at the heart of BEH's ten-year goals, including becoming a net generator of green energy.

BEH's vision for the Land east of Park View project is to create an exemplar project at the heart of Blenheim and its surrounding communities. As part of the legacy, BEH looks at the importance of understanding and managing sustainability via its carbon impact, material choices, impacts on biodiversity and opportunities to promote and develop green and active travel.

Through the Land east of Park View Development, BEH are committed to achieving an exemplary development in terms of sustainability, with focus on environmental, social and economic measures to deliver this. The development will be designed to Passivhaus standards and will achieve large reductions in operational carbon down to zero through onsite energy generation.

The sustainability strategy for the development is aimed at exceeding the national and local policy requirements and will look to achieve a consistent approach to best practice and aspirational targets across all areas of sustainability. Developed in tandem with the national and local policy guidance on sustainability, the approach undertaken is to identify areas that go beyond compliance and where possible undertake a best practice approach to sustainability. The sustainable approach of the Land east of Park View Development will:

- Promote inclusive, healthy and safe communities
- Focus on improving ecology and biodiversity of the site.
- Help reduce causes and adverse impacts of climate change – flood risk
- Promote widespread use of renewables and create a Passivhaus development

Through ensuring that sustainability is at the heart of the development, a broad focus on all sustainability themes and metrics has been undertaken. The structure of the statement follows Cherwell District Council's Sustainability Standards Checklist for Planning: Major Applications, to provide clarity on where the development is compliant and providing additional detail on where the project is exceeding these standards.

This statement provides the outline approach to the sustainable measures that will be implemented on the project and forms the basis of a framework that will ensure that this is an exemplar project. This report should be read in tandem the energy statement for the project

	Theme	Relevant Policy	Land east of Park View proposal
1	<p>Aligning with Net Zero Carbon</p>	<p>Policy ESD 2: Energy Hierarchy and Allowable Solutions</p> <p>In seeking to achieve carbon emissions reductions, we will promote an 'energy hierarchy' as follows:</p> <ul style="list-style-type: none"> ▪ Reducing energy use using sustainable design and construction measures ▪ Supplying energy efficiently and giving priority to decentralised energy supply ▪ Making use of renewable energy ▪ Making use of allowable solutions. <p>Policy ESD 4: Decentralised Energy Systems</p> <p>The use of decentralised energy systems, providing either heating (District Heating (DH)) or heating and power (Combined Heat and Power (CHP)) will be encouraged in all new developments. A feasibility assessment for DH/CHP, including consideration of biomass fuelled CHP, will be required for:</p> <ul style="list-style-type: none"> ▪ All residential developments for 100 dwellings or more <p>Policy ESD 5: Renewable Energy</p> <p>A feasibility assessment of the potential for significant on-site renewable energy provision (above any provision required to meet national building standards) will be required.</p> <p>Where feasibility assessments demonstrate that on site renewable energy provision is deliverable and viable, this will be required as part of the development unless an alternative solution would deliver the same or increased benefit. This may include consideration of 'allowable solutions' as Government Policy evolves</p>	<p>The ambition of the site is to achieve a Net Zero Carbon site</p> <ul style="list-style-type: none"> ▪ Improved thermal fabric performance to Passivhaus Design Standards. This involves improved fabric U-values through increased insulation thickness and improved dwelling air permeability rate through enhanced building sealing. ▪ Improved buildings systems efficiencies. This involves improving the heating and ventilation efficiencies to aspirational levels that align to Passivhaus Design Standards. ▪ Air Source Heat Pump used for dwelling heating and hot water. This involves reducing the operational energy demand for the Dwellings using a highly efficient and low carbon energy source of air source heat pumps. ▪ Photovoltaics, used to generate zero carbon electrical energy onsite. This involves an option study of different PV solutions to generate onsite zero carbon electrical energy. ▪ Ground to water/water or air to water heat pumps (Electric) <p>As is demonstrated in the Energy Statement, the load has been reduced through the incorporated design solutions and the zero-carbon generation has been calculated. As the results demonstrate, the site can provide 103.25% of required energy load served through onsite zero carbon energy</p> <p>Therefore, with the current design initiatives and onsite zero carbon energy generation, Park View can achieve net zero carbon in operation.</p>

2	<p>Green and Active Travel</p>	<p>Policy SLE 4: Improved Transport and Connections</p> <p>New development in the District will be required to provide financial and/or in-kind contributions to mitigate the transport impacts of development.</p> <p>All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport, walking and cycling. Encouragement will be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. Development which is not suitable for the roads that serve the development, and which have a severe traffic impact will not be supported.</p> <p>Policy ESD 1: Mitigating and Adapting to Climate Change</p> <p>Measures will be taken to mitigate the impact of development within the District on climate change. At a strategic level, this will include delivering development that seeks to reduce the need to travel and which encourages sustainable travel options including walking, cycling and public transport to reduce dependence on private cars.</p>	<p>The proposed scheme will deliver a highly sustainable site in terms of transport:</p> <ul style="list-style-type: none"> ▪ The site is well located to encourage end occupiers of the proposed development to travel sustainably to and from the site. ▪ The site has good access to key employment locations in Woodstock, creating opportunities to maximise walking, cycling and bus trips ▪ Hanborough station and Oxford Parkway Station are located close by and provide direct rail services to Worcester (1 hour) to the northwest and London Marylebone and Paddington (1 hour) to the southeast. The project will utilise footways and cycle paths to ensure connectivity to the stations. ▪ The site is well served by road access, with A-road links connecting the surrounding settlements and facilities, including Oxford Parkway Park and Ride (10 minutes away) and Oxford International Airport, the Thames Valley area’s primary regional and business aviation airport, directly to the east ▪ The A44 is situated along the boundary of the site and is serviced by several bus routes. ▪ Safe, direct access for vehicular traffic can be delivered onto the A44, and cycle access from the site to the wider National Cycle Network. ▪ A new park and ride service will be located off the A4095 next to the airport. ▪ A network of pedestrian and cycle routes will be created on the development that reach out towards the surrounding landscape, providing sustainable routes to Park View to the west and to Oxford Road in the south, connecting to existing bus routes and to the proposed park and ride on the A4095. ▪ Secure cycle parking facilities will be provided within the masterplan at key public spaces including the focal green space in the centre of the masterplan, and next to areas of open space. The parking should integrate with the surrounding public realm. ▪ Cycle parking for residents will be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building or garage/shed. If external residents/visitor cycle parking is used it should be covered and located close to building entrances.
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			<ul style="list-style-type: none"> ▪ Charging points and secure parking facilities will be provided communally for electric bicycles to encourage greater use of these forms of personal transport. ▪ Where cars are used, the intention is to provide car parking spaces with electric charging points, and infrastructure will be installed from the outset to allow for this ▪ The application will consider supporting a car club scheme during the operation of the development, for example car clubs (e.g. Zipcar), web-based ride-sharing (e.g. Liftshare), ride-pooling (e.g. UberPool), car-pooling and demand responsive transport (e.g. dial-a-ride).
3	Biodiversity	<p>Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment.</p> <p>Protection and enhancement of biodiversity and the natural environment will be achieved by the following:</p> <ul style="list-style-type: none"> ▪ In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources ▪ The protection of trees will be encouraged, with an aim to increase the number of trees in the District ▪ Development proposals will be expected to incorporate features to encourage biodiversity and retain and where possible enhance existing features of nature conservation value within the site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity ▪ Relevant habitat and species surveys and associated reports will be required to accompany planning applications which may affect a site, habitat or species of known or potential ecological value 	<p>The Land east of Park View site gives opportunity for high quality landscaping, with significant Green Infrastructure provision within the proposal, to assimilate the development into the landscape. An evaluation of the biodiversity of the site has been undertaken, with a mitigation hierarchy applied for the species that are appropriate for the site. The existing sensitive features within the site will be protected and retained wherever possible and enhanced with new features that are characteristic of the landscape.</p> <ul style="list-style-type: none"> ▪ Protect and enhance the existing landscape, heritage, and ecology assets ▪ Create an attractive and verdant landscape setting for the new homes ▪ Create a strong network of well-connected green spaces ▪ Provide an intrinsic green infrastructure creating a series of varied and attractive amenity spaces alongside important enhanced habitat areas and corridors to increase overall biodiversity on site ▪ Ensure that drainage solutions are positively integrated into the green network whilst delivering biodiversity benefits ▪ Retain and enhance the public right of way with new footpaths and cycle links creating accessible open space and connectivity through the site, to Land east of Park View and the wider countryside. ▪ An overall increase in the area of habitats of conservation value within the site, including hedgerows, attenuation ponds, lines of trees, woodland and scattered scrub.

	<ul style="list-style-type: none"> ▪ A monitoring and management plan will be required for biodiversity features on site to ensure their long-term suitable management. <p>Policy ESD 17: Green Infrastructure</p> <p>The District's green infrastructure network will be maintained and enhanced through the following measures:</p> <ul style="list-style-type: none"> ▪ Pursuing opportunities for joint working to maintain and improve the green infrastructure network, whilst protecting sites of importance for nature conservation ▪ Ensuring that green infrastructure network considerations are integral to the planning of new development. Proposals should maximise the opportunity to maintain and extend green infrastructure links to form a multi-functional network of open space, providing opportunities for walking and cycling, and connecting the towns to the urban fringe and the wider countryside beyond ▪ All strategic development sites (Section C: 'Policies for Cherwell's Places') will be required to incorporate green infrastructure provision and proposals should include details for future management and maintenance. 	<ul style="list-style-type: none"> ▪ Improved functional ecological corridors throughout the site for commuting, foraging and dispersal by a range of species, including bats, birds, small mammals, amphibians, reptiles and invertebrates. ▪ The proposal is targeting at least 20% biodiversity net gain.
<p>4 Sustainable Construction Materials and Waste</p>	<p>Policy ESD 3: Sustainable Construction</p> <p>All new residential development will be expected to incorporate sustainable design and construction technology to achieve zero carbon development through a combination of fabric energy efficiency, carbon compliance and allowable solutions in line with Government policy.</p> <p>All development proposals will be encouraged to reflect high quality design and high environmental standards, demonstrating sustainable construction methods including but not limited to:</p>	<ul style="list-style-type: none"> ▪ Careful selection of materials including sourcing local materials where possible as well as materials from sustainable sources. The material choice depends upon what is readily available from the surrounding areas. The materials at land east of Park View have been chosen to respect the existing local character of Woodstock. The palette of materials comprises of yellow limestone, reconstituted stone and random coursed limestone for the walls. The roofscape includes natural slate and clay tiled pitched roofs and brick chimneys providing roofscape interest. Homes front the street with both gable ends and side gables.

		<ul style="list-style-type: none"> ▪ Minimising both energy demands and energy loss ▪ Maximising passive solar lighting and natural ventilation ▪ Maximising resource efficiency Incorporating the use of recycled and energy efficient materials ▪ Incorporating the use of locally sourced building materials ▪ Reducing waste and pollution and making adequate provision for the recycling of waste ▪ Making use of sustainable drainage methods ▪ Reducing the impact on the external environment and maximising opportunities for cooling and shading (by the provision of open space and water, planting, and green roofs, for example); and ▪ Making use of the embodied energy within buildings wherever possible and re-using materials where proposals involve demolition or redevelopment. 	<ul style="list-style-type: none"> ▪ Automated monitoring of energy and water consumption across the development through a management system. ▪ Ensuring protection of landscape features, including important hedgerows and trees, throughout the construction period. – The project commits to protecting hedges and trees during the construction process ▪ Waste minimisation by ‘designing out’ from the project and limiting waste arising during the construction phase. This involves promoting the use of recycled materials, re-using on site where possible, and disposing of any waste in the most sustainable manner. ▪ The project will commit to using local contractors where appropriate ▪ Adherence to a Construction Environmental Management Plan which will set out the project will avoid, minimise or mitigate effects on the environment and surrounding area. This will set out a framework within which the measures to maintain best practice procedures will be implemented throughout the project ▪ Efficient construction techniques and materials selection will prioritise low embodied carbon where appropriate. As the design progresses, the embodied carbon of the products in the specification will be carefully considered to minimise the carbon impact of the material chosen. ▪ As part of the tender process, the contractor will be expected to sign up to the Considerate Constructors Scheme ▪ All properties are provided with adequate external storage space for bins and recycling as well as vehicles and cycles
6	Water Use and Flood Risk	<p>Policy ESD 3: Sustainable Construction</p> <p>Cherwell District is in an area of water stress and as such the Council will seek a higher level of water efficiency than required in the Building Regulations, with developments achieving a limit of 110 litres/person/day.</p> <p>All development proposals will be encouraged to reflect high quality design and high environmental standards, demonstrating sustainable construction methods including but not limited to:</p> <ul style="list-style-type: none"> ▪ Making use of sustainable drainage methods 	<p>The development will be designed to conserve water. The primary aim will be to reduce potable water consumption as much as possible, and then having reduced the demand, to provide the water, where feasible, from non-potable water collected on site.</p> <p>As the design develops, more specific targets will be set on the water rates of the development. As a minimum, the project will aim to specify fittings that use less than 105 litres/person/day in line with HQM level 4. Careful consideration of the design and products chosen will make sure that water efficiency is a priority on this project. Feasibility studies on water recycling</p>

	<p>Policy ESD 6: Sustainable Flood Risk Management</p> <p>Site specific flood risk assessments will be required to accompany development proposals in the following situations:</p> <ul style="list-style-type: none"> ▪ All development proposals located in flood zones 2 or 3 ▪ Development proposals of 1 hectare or more located in flood zone 1 ▪ Development sites located in an area known to have experienced flooding problems ▪ Development sites located within 9m of any watercourses. <p>Flood risk assessments should assess all sources of flood risk and demonstrate that:</p> <ul style="list-style-type: none"> ▪ There will be no increase in surface water discharge rates or volumes during storm events up to and including the 1 in 100 year storm event with an allowance for climate change (the design storm event) ▪ Developments will not flood from surface water up to and including the design storm event or any surface water flooding beyond the 1 in 30 year storm event, up to and including the design storm event will be safely contained on site. <p>Development should be safe and remain operational (where necessary) and proposals should demonstrate that surface water will be managed effectively on site and that the development will not increase flood risk elsewhere, including sewer flooding.</p>	<p>systems will be undertaken as the design progresses. Rainwater butts will be provided</p> <p>A hierarchical approach has been undertaken in consideration of the application of Suds in relation to the development. This is in order to meet the design philosophy of ensuring that surface water run-off is managed as close to its source as possible and the existing situation is replicated as closely as possible. Infiltration techniques such as permeable paving, swales, trenches, soakaways, etc. are suitable to reduce the runoff leaving the site and addressing it at source, particularly to the eastern side of the development. A combination of these features will be used in the eastern side of the scheme, where infiltration is viable</p>
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2. INTRODUCTION

This Sustainability Statement has been prepared by Ridge LLP on behalf of Blenheim Estate Homes in support of the outline planning application for land east of Park View, for up to 500 dwellings comprising of a range of sizes, open space, and associated work. This statement outlines the approach taken by Blenheim Estates in ensuring that sustainability is at the heart of the development.

2.1. Site Location

The site location is situated southeast of Woodstock, Northwest of Oxford and neighbours Oxford Airport to the east and Blenheim Palace to its west. The village is within the Hanborough civil parish which also includes the neighbouring village of Church Hanborough.



Figure 1 - Site Area Map

Blenheim Estate Homes are landowners with a long and varied experience in creating developments that focus on respectful design, high building standards, thriving communities and high standards of sustainability and biodiversity. Blenheim’s approach to sustainability ensures that all their developments are designed to be energy efficient communities, which enhance and restore biodiversity and wildlife habitats. Their approach focusses on allowing people to make informed transport choices with the focus on walking and cycling routes to allow for greener choices.

This statement will provide an outline approach to sustainability and will be the basis of a robust sustainability strategy for the project as the design develops.

3. SUMMARY POLICY REQUIREMENTS

To ensure a holistic sustainable approach to development it is essential that consideration is given to, and clearly relates to relevant policy and guidance. A policy review indicates the relevant international, national, and regional and local policies which should be considered to ensure that the appropriate standards and principles are adopted. The key planning policy and guidance documents that were used to frame and inform this approach are as follows:

- United Nations 2030 Agenda for Sustainable Development
- United Nations 26th Conference of the Parties (COP26)
- National Planning Policy Framework (NPPF) July 2021
- 2020 Climate Action Framework – Transforming Cherwell
- The Cherwell Local Plan 2011 – 2031

3.1. International Policy

3.1.1. United Nations 2030 Agenda for Sustainable Development

The 2030 Agenda for Sustainable Development, set out in 2015 by the United Nations, highlighted 17 Sustainable Development Goals (SDGs) to work towards, each with corresponding targets and indicators. The SDGs are an international urgent call for action and aim to inform the policy and targets of individual nations.

- SDG 3: Good health and Well-being: Ensure healthy lives and promote well-being for all at all ages.
- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy
- SDG 8: Promote inclusive and sustainable economic growth, employment and decent work for all
- SDG 11: Make cities inclusive, safe, resilient and sustainable
- SDG 12: Ensure sustainable consumption and production patterns
- SDG 13: Climate Action: Take urgent action to combat climate change and its impacts.
- SDG 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
- SDG 17: Revitalize the global partnership for sustainable development

3.2. National Policy

3.2.1. National Planning Policy Framework (NPPF), July 2021

The National Planning Policy Framework (NPPF) was revised on 20th July 2021 and indicates government planning policies for England and how these should be applied. The policies in the document, taken as a whole, constitute the Government's view of what sustainable development in England means in practice for the planning system.

Fundamentally for the proposed development, paragraph 8 of the NPPF states that:

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 well-designed, beautiful and safe places, with accessible services and

- open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- an environmental objective – to protect and enhance our natural, built and historic environment, including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy

Paragraph 10 of the NPPF states that:

“So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development.”

Paragraph 11 of the NPPF states that:

“Plans and decisions should apply a presumption in favour of sustainable development.”

For plan-making this means that:

a) all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;

b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless:

i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area;

or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

For decision-taking this means:

c) approving development proposals that accord with an up-to-date development plan without delay;

or d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:

i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed;

or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole

Meeting the challenge of climate change is addressed in section 14 of the NPPF, and paragraph 152 states;

“The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”

Further to the above paragraphs 153, 154 and 155 state:

“153. 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 from rising temperatures⁵³. Policies should support appropriate measures to ensure the future 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.

New development should be planned for in ways that:

a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and

b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.

155. To help increase the use and supply of renewable and low carbon energy and heat, plans should:

a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);

b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and

c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers."

Conserving and enhancing the natural environment is addressed in Chapter 15;

Paragraph 174 states;

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."

3.3. Regional and Local Policy

The Sustainability Statement sets out how the project will meet the requirements as set out in the regional and local policy. It sets out the methods by which the project will address sustainability adhering to the themes and requirements set out below.

3.3.1. 2020 Climate Action Framework – Transforming Cherwell

Theme One: Transport connectivity and planning: Through our Local Planning role and work with partners:

- Prioritise digital infrastructure and co-working facilities over road building: connectivity, enabled by full fibre broadband across Oxfordshire will replace the need for many journeys
- Increase the number of people walking and cycling in conjunction with the healthy place shaping principles: it will be accessible and normal

- Accelerate the rise of electric, shared and autonomous travel Increasingly deprioritise journeys by single occupancy private car
- Promote net zero carbon new developments, with high fabric standards, renewables maximised on site and low embodied carbon
- Continue to spearhead the development of the nationally important true zero carbon Eco-town development

Theme Two: Natural carbon management: Through our planning policies and as a community and regional partner we will ensure Oxfordshire:

- Takes advantage of 'natural capital' assets such as soils, woodlands, hedges and ponds in order to capture and store carbon and are valued by communities
- Protects, conserves and enhances carbon capture and storage through our natural environments
- Support the ambition to double tree cover in Oxfordshire with 'the right tree in the right place', as part of a holistic approach to enhance the county's biodiversity and green infrastructure

Theme Three: Infrastructure business and systems: Through our planning and economic development roles and working as a regional partner we will develop policy, support others, channel our investment and participate in innovation projects for: standards of energy performance and environmental sustainability.

- Smart, flexible, local renewable generation that enhances local resilience identified in strategic planning
- Good design that favours zero carbon connectivity and low impact living from the outset
- Enabling electric charging infrastructure accessible for all residents
- Community ownership of energy generation and storage assets
- Change in the business community, business networks and development of the low carbon supply chain

Theme Four: Waste and consumption: By participating in county-wide partnerships, supporting residents and reviewing our own policies we will:

- Maximise waste reduction and recycling
- Target zero growth in waste per person and an increase in the circular economy
- Work towards assessing whole system carbon impacts in our waste strategy planning and seek to influence national policy

Theme Five: Buildings and housing: By engaging with partners through OP2050, the Oxfordshire Energy Strategy, and Oxfordshire communities we support initiatives that lead to:

- Extensive retrofitting of existing building
- Increase the proportion of work on fuel poverty delivered through improved building standards and the Oxfordshire Affordable Warmth Network

3.4. Cherwell Local Plan 2011-2031

3.4.1. Policy ESD 1: Mitigating and Adapting to Climate Change

Measures will be taken to mitigate the impact of development within the District on climate change. At a strategic level, this will include:

- Distributing growth to the most sustainable locations as defined in this Local Plan
- Delivering development that seeks to reduce the need to travel and which encourages sustainable travel options including walking, cycling and public transport to reduce dependence on private cars

- Designing developments to reduce carbon emissions and use resources more efficiently, including water (see Policy ESD 3 Sustainable Construction)
- Promoting the use of decentralised and renewable or low carbon energy where appropriate (see Policies ESD 4 Decentralised Energy Systems and ESD 5 Renewable Energy).

The incorporation of suitable adaptation measures in new development to ensure that development is more resilient to climate change impacts will include consideration of the following:

- Taking into account the known physical and environmental constraints when identifying locations for development
- Demonstration of design approaches that are resilient to climate change impacts including the use of passive solar design for heating and cooling
- Minimising the risk of flooding and making use of sustainable drainage methods, and
- Reducing the effects of development on the microclimate (through the provision of green infrastructure including open space and water, planting, and green roofs).

Adaptation through design approaches will be considered in more locally specific detail in the Sustainable Buildings in Cherwell Supplementary Planning Document (SPD).

3.4.2. Policy ESD 2: Energy Hierarchy and Allowable Solutions

In seeking to achieve carbon emissions reductions, we will promote an 'energy hierarchy' as follows:

- Reducing energy use, in particular by the use of sustainable design and construction measures
- Supplying energy efficiently and giving priority to decentralised energy supply
- Making use of renewable energy
- Making use of allowable solutions.

3.4.3. Policy ESD 3: Sustainable Construction

All new residential development will be expected to incorporate sustainable design and construction technology to achieve zero carbon development through a combination of fabric energy efficiency, carbon compliance and allowable solutions in line with Government policy.

Cherwell District is in an area of water stress and as such the Council will seek a higher level of water efficiency than required in the Building Regulations, with developments achieving a limit of 110 litres/person/day.

All new non-residential development will be expected to meet at least BREEAM 'Very Good' with immediate effect, subject to review over the plan period to ensure the target remains relevant. The demonstration of the achievement of this standard should be set out in the Energy Statement.

The strategic site allocations identified in this Local Plan are expected to provide contributions to carbon emissions reductions and to wider sustainability.

All development proposals will be encouraged to reflect high quality design and high environmental standards, demonstrating sustainable construction methods including but not limited to:

- Minimising both energy demands and energy loss
- Maximising passive solar lighting and natural ventilation
- Maximising resource efficiency
- Incorporating the use of recycled and energy efficient materials
- Incorporating the use of locally sourced building materials

- Reducing waste and pollution and making adequate provision for the recycling of waste
- Making use of sustainable drainage methods
- Making use of sustainable drainage methods Reducing the impact on the external environment and maximising opportunities for cooling and shading (by the provision of open space and water, planting, and green roofs, for example); and
- Making use of the embodied energy within buildings wherever possible and re-using materials where proposals involve demolition or redevelopment.

Should the promoters of development consider that individual proposals would be unviable with the above requirements, 'open-book' financial analysis of proposed developments will be expected so that an independent economic viability assessment can be undertaken. Where it is agreed that an economic viability assessment is required, the cost shall be met by the promoter.

3.4.4. Policy ESD 5: Renewable Energy

The Council supports renewable and low carbon energy provision wherever any adverse impacts can be addressed satisfactorily. The potential local environmental, economic and community benefits of renewable energy schemes will be a material consideration in determining planning applications.

Planning applications involving renewable energy development will be encouraged provided that there is no unacceptable adverse impact, including cumulative impact, on the following issues, which are considered to be of particular local significance in Cherwell:

- Landscape and biodiversity including designations, protected habitats and species, and Conservation Target Areas
- Visual impacts on local landscapes
- The historic environment including designated and non designated assets and their settings
- The Green Belt, particularly visual impacts on openness
- Aviation activities
- Highways and access issues, and
- Residential amenity.

A feasibility assessment of the potential for significant on site renewable energy provision (above any provision required to meet national building standards) will be required for:

- All residential developments for 100 dwellings or more
- All residential developments in off-gas areas for 50 dwellings or more
- All applications for non-domestic developments above 1000m² floorspace.

Where feasibility assessments demonstrate that on site renewable energy provision is deliverable and viable, this will be required as part of the development unless an alternative solution would deliver the same or increased benefit. This may include consideration of 'allowable solutions' as Government Policy evolves.

3.4.5. Policy ESD 6: Sustainable Flood Risk Management

The Council will manage and reduce flood risk in the District through using a sequential approach to development; locating vulnerable developments in areas at lower risk of flooding. Development proposals will be assessed according to the sequential approach and where necessary the exceptions test as set out in the NPPF and NPPG. Development will only be permitted in areas of flood risk when there are no reasonably available sites in areas of lower flood risk and the benefits of the development outweigh the risks from flooding.

In addition to safeguarding floodplains from development, opportunities will be sought to restore natural river flows and floodplains, increasing their amenity and biodiversity value. Building over or culverting of watercourses should be avoided and the removal of existing culverts will be encouraged.

Existing flood defences will be protected from damaging development and where development is considered appropriate in areas protected by such defences it must allow for the maintenance and management of the defences and be designed to be resilient to flooding.

Site specific flood risk assessments will be required to accompany development proposals in the following situations:

- All development proposals located in flood zones 2 or 3
- Development proposals of 1 hectare or more located in flood zone 1
- Development sites located in an area known to have experienced flooding problems
- Development sites located within 9m of any watercourses.

Development should be safe and remain operational (where necessary) and proposals should demonstrate that surface water will be managed effectively on site and that the development will not increase flood risk elsewhere, including sewer flooding.

3.4.6. Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment

Protection and enhancement of biodiversity and the natural environment will be achieved by the following:

- In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources
- The protection of trees will be encouraged, with an aim to increase the number of trees in the District
- The reuse of soils will be sought
- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then development will not be permitted.
- Development which would result in damage to or loss of a site of international value will be subject to the Habitats Regulations Assessment process and will not be permitted unless it can be demonstrated that there will be no likely significant effects on the international site or that effects can be mitigated
- Development which would result in damage to or loss of a site of biodiversity or geological value of national importance will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site and the wider national network of SSSIs, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity
- Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principal importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity

- Development proposals will be expected to incorporate features to encourage biodiversity, and retain and where possible enhance existing features of nature conservation value within the site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity
- Relevant habitat and species surveys and associated reports will be required to accompany planning applications which may affect a site, habitat or species of known or potential ecological value
- Air quality assessments will also be required for development proposals that would be likely to have a significantly adverse impact on biodiversity by generating an increase in air pollution
- Planning conditions/obligations will be used to secure net gains in biodiversity by helping to deliver Biodiversity Action Plan targets and/or meeting the aims of Conservation Target Areas. Developments for which these are the principal aims will be viewed favourably
- A monitoring and management plan will be required for biodiversity features on site to ensure their long term suitable management.

3.4.7. Policy ESD 17: Green Infrastructure

The District's green infrastructure network will be maintained and enhanced through the following measures:

- Pursuing opportunities for joint working to maintain and improve the green infrastructure network, whilst protecting sites of importance for nature conservation
- Protecting and enhancing existing sites and features forming part of the green infrastructure network and improving sustainable connectivity between sites in accordance with policies on supporting a modal shift in transport (Policy SLE 4: Improved Transport and Connections), open space, sport and recreation (Policy BSC 10: Open Space, Outdoor Sport and Recreation Provision), adapting to climate change (Policy ESD 1: Mitigating and Adapting to Climate Change), SuDS (Policy ESD 7: Sustainable Drainage Systems (SuDS)), biodiversity and the natural environment (Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment), Conservation Target Areas (Policy ESD 11: Conservation Target Areas), heritage assets (Policy ESD 15) and the Oxford Canal (Policy ESD 16)
- Ensuring that green infrastructure network considerations are integral to the planning of new development. Proposals should maximise the opportunity to maintain and extend green infrastructure links to form a multi-functional network of open space, providing opportunities for walking and cycling, and connecting the towns to the urban fringe and the wider countryside beyond
- All strategic development sites (Section C: 'Policies for Cherwell's Places') will be required to incorporate green infrastructure provision and proposals should include details for future management and maintenance.

3.4.8. Policy SLE 4: Improved Transport and Connections

The Council will support the implementation of the proposals in the Movement Strategies and the Local Transport Plan to deliver key connections, to support modal shift and to support more sustainable locations for employment and housing growth.

We will support key transport proposals including:

- Transport Improvements at Banbury, Bicester and at the Former RAF Upper Heyford in accordance with the County Council's Local Transport Plan and Movement Strategies
- Projects associated with East-West rail including new stations at Bicester Town and Water Eaton
- Rail freight associated development at Graven Hill, Bicester
- Improvements to M40 junctions.

Consultation on options for new link and relief roads at Bicester and Banbury will be undertaken through the Local Transport Plan (LTP) review process. Routes identified following strategic options appraisal work for LTP4 will be confirmed by the County Council and will be incorporated in Local Plan Part 2.

New development in the District will be required to provide financial and/or in-kind contributions to mitigate the transport impacts of development.

All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport, walking and cycling. Encouragement will be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. Development which is not suitable for the roads that serve the development and which have a severe traffic impact will not be supported.

4. SUSTAINABILITY APPROACH

Through ensuring that sustainability is at the heart of the development, a broad focus on all sustainability themes and metrics has been undertaken. Developed in tandem with the national and local policy guidance on sustainability, the approach undertaken is to identify areas that go beyond compliance and where possible undertake a best practice approach to sustainability. The structure of the statement follows Cherwell District Council's Sustainability Standards Checklist for Planning: Major Applications, to provide clarity on where the development is compliant and providing additional detail on where the project is exceeding these standards. Blenheim Estate Homes will embed their legacy principles to ensure that sustainability and community are at the heart of the project:

- Respectful Design
- Enduring build standards
- Thriving communities
- Environment and Biodiversity

4.1. Aligning with Net-Zero Carbon

This section is to be read in conjunction with the energy statement for the project

Cherwell District Council has committed to be net carbon neutral from operations and activities by 2030. In 2018, UK's current emissions were reported to be 44% below 1990 levels. To support this target, several multisectoral changes need to be considered including reduction in demand for energy across the economy, lower demand for carbon-intensive activities, extensive electrification, particularly of transport and heating, development of a hydrogen economy, carbon capture and storage.

Objectives and Targets

The development will be constructed to achieve the highest economically viable energy efficiency and be designed to maximise the delivery of decentralised renewable or low-carbon energy generation. A feasibility study of the Low and zero carbon technologies has been undertaken as part of the drive towards achieving carbon neutrality.

The energy statement considers both the operational (regulated and unregulated energy) and embodied carbon impact of the proposed development. Regulated energy refers to energy regulated by the Building Regulations Guidance, unregulated energy refers to energy used by a system not controlled by the Building Regulations, such as white goods, IT and cooking equipment. Embodied carbon refers to the carbon captured within the building materials and building construction process, this typically constitutes 51% of a residential developments' whole life carbon emissions.

BEH take seriously their operational and embodied carbon impact and will strive to reduce their carbon emissions to achieve Net Zero Carbon through responsible design initiatives. Given the client ambition for the site and design, this will be an industry leading site wide Net Zero Carbon Development. As a result of the design process developed and implemented, the following solutions were provided to reduce onsite energy consumption and carbon emissions for the proposed development:

- **Improved thermal fabric performance to Passivhaus Design Standards** - Improved fabric U-values through increased insulation thickness and improved dwelling air permeability rate through enhanced building sealing.
- **Improved buildings systems efficiencies** - Improving the heating and ventilation efficiencies to aspirational levels that align to Passivhaus Design Standards.

- **Air Source Heat Pump used for dwelling heating and hot water.** - Reducing the operational energy demand for the Dwellings using a highly efficient and low carbon energy source of air source heat pumps.
- **Photovoltaics, used to generate zero carbon electrical energy onsite** - Option study of different PV solutions to generate onsite zero carbon electrical energy.

The development will aim to reduce energy use and carbon emissions through using Passivhaus Housing Standards on the dwellings, use of energy efficient equipment and Low and zero carbon technologies. BEH has made a commitment to designing to the standard across the project, knowing that it is the foremost method of reducing energy use and carbon emissions from buildings within the UK, as well as providing high standards of comfort and building health. The Passivhaus approach allows buildings to provide a high level of comfort for the building occupants whilst using the minimum amount of energy for heating. The benefits of a Passivhaus for the residents include:

- A Passivhaus building will have a heating demand of 90% lower than existing buildings and 50% lower compared to new homes. This means that residents will receive much lower utility bills and have increased comfort through the design.
- The buildings will be of a high quality and air tightness, preventing issues of draughts, cold spots, mould and condensation. The internal air temperature and quality will remain at an even level throughout the year. Through the installation of a Mechanical Ventilation Heat Recovery (MVHR) unit will ensure that fresh air is brought into the developments. This prevents pollutants and dust from entering the home and will help reduce allergies such as hay fever and reduce risk of respiratory issues.
- The Passivhaus process requires rigorous monitoring that will reduce the risk of defects, thus leading to a much a higher build quality. By achieving the standards, the development will reduce its building fabric energy demand. This combined with renewable sources of energy as outlined below will help achieve the approach to zero carbon.

In order to achieve the Passivhaus Standard, the following steps will be adopted:

4.2. Step 1 – Reduce Operational Energy Use

The project will commit to the notion that reductions in energy demand and consumption should be prioritised over all other measures. This will be done by following the Be Lean, Be Clean, Be Green energy hierarchy, as developed by the Greater London Authority. Through adopting the Passivhaus Housing Standards the following design initiatives will be undertaken on the dwellings:

Be Lean

- Fabric performance – the project will improve the thermal elements U-values and air tightness of the buildings through the design.
- Orientation – the design will aim to minimise summer solar gain overheating but maximise winter solar heating.
- Glazing percentages – the design will reduce the impact of overheating by minimising glazing in high solar gain areas. As well as reducing winter heat loss through glazing panels.
- Window specification – reduce winter heat loss and summer solar gain
- Layout and Form – positioning rooms strategically to reduce heat loss, increase winter solar heating and reduce summer overheating. I.e., bedrooms at the north-east, family rooms at the south-east, north facing rooflights etc.

Be Clean


- Efficient Lighting with Daylight Linking: Switching general lighting to LED and incorporating daylighting linking to minimise energy consumption in on and off-peak hours.
- Efficient Equipment: use energy efficient appliance and equipment wherever possible to reduce unregulated energy consumption.
- Pumps and fans: Variable speed drives should be considered for pumps and fans to reduce energy consumption.
- Occupancy Controls: Energy consumption that aligns with occupancy.
- Modular dwelling systems as opposed to large central plant areas.
- Energy monitoring: An energy sub-metering strategy should be used to monitor energy use in the dwelling. This system will allow for an understanding of out-of-range values and any anomaly's that could identify faults which may cause the dwelling to use more energy.

4.3. Step 2 – Increase Renewable Energy Supply

Be Green

Be Green principles consider the technical feasibility of Low and Zero Carbon (LZC) technologies to provide onsite energy to proposed development. These measures should only be considered once the Be Lean and Be Clean measures have been exhausted. To complement the Passivhaus approach the following technologies have been identified to help support the net zero approach:

Low and Zero Carbon Technology recommendations

TECHNOLOGY	CHARACTERISTICS	COMMENTS	FEASIBILITY
 Solar Technologies			
Photovoltaics (PV)	Photovoltaic (Solar PV) systems use solar cells to convert sunlight into electricity.	Requires careful orientation and tilt to obtain optimum generation performance. Note that specialist maintenance is required. Access considerations should be considered. Low carbon savings compared to capital cost of installation.	Feasible/suitable
Air to air heat pumps (Electric or Gas)	Low-temperature heat, which occurs naturally in the air, is converted to high-grade heat by using an electrically driven or gas-powered pump.	Can provide both heating and cooling to an internal environment. Low. Specialist maintenance is required. Please note that refrigerants are often use and their impact on the environment requires consider Medium. System can provide both low carbon heating and cooling.	Feasible/Suitable
Ground to air/water heat pumps (Electric)	The principle of operation revolves around the refrigerant (with a very low boiling point) being heated by the ground through an evaporator heat exchanger and pumped by a compressor to the indoor heat exchanger whereby it cools and condenses back to a liquid whilst expelling heat into the space.	System to provide low carbon heating and cooling. Ground conditions are suitable for the technology. Low maintenance requirements Medium-High carbon savings. Efficiency of the system is highly dependent on heating flow and return temperatures. Ground investigation of the site found archaeological below ground constraints that a ground source specialist can work with. Please note it is often associated with high capital costs of installation. Likely to be more efficient if constructed on a site wide basis rather than for individual dwellings.	Feasible/Suitable

As is demonstrated in the Energy Statement, the load has been reduced through the incorporated design solutions and the zero-carbon generation has been calculated. As the results demonstrate, the site can provide **103.25%** of required energy load served through onsite zero carbon energy

Therefore, with the current design initiatives and onsite zero carbon energy generation, Park View can achieve net zero carbon in operation.

4.4. Green and Active Travel

Promoting sustainable transport choices to development users can support significant sustainability gains. How users travel to site can also influence health and social gains. Reducing reliance on private cars can also reduce localised congestion which supports local air quality; reduces traffic noise; promotes healthy lifestyles and supports connectivity to the wider area. Accessibility can also significantly influence user perception of development quality. It is necessary to provide sustainable travel choices that promote reduced reliance on private cars, seeking to relieve congestion and reduce carbon emissions.

Objectives and Targets

The proposed development aims to be an exemplar for green travel and seeks to push modal shift away from the private car. It has therefore been designed to promote sustainable transport measures to promote accessibility of the site by walking, cycling, the use of personal electric vehicles and public transport. It is intended that through the provision and promotion of sustainable travel alternatives to private car use, a significant shift in travel patterns to and from the site can be achieved.

Charging points and secure parking facilities will be provided for electric bicycles and scooters to encourage greater use of these forms of personal transport. The masterplan has been designed to connect to existing cycling and walking networks to make these modes of transport more convenient and to encourage walking and cycling to the site and discourage the use of the private vehicle. This includes the provision of dedicated cycle/footpaths which connect to the wider cycle and footpath network. An assessment of the wider cycle network has also been prepared to identify improvements that can be made. A proportionate contribution is proposed to be made towards these improvements.

The project will focus on the following:

- The site is well located to encourage end occupiers of the proposed development to travel sustainably to and from the site.
- The site has good access to key employment locations in Woodstock, creating opportunities to maximise walking, cycling and bus trips
- Hanborough station and Oxford Parkway Station are located close by and provide direct rail services to Worcester (1 hour) to the northwest and London Marylebone and Paddington (1 hour) to the southeast. The project will utilise footways and cycle paths to ensure connectivity to the stations.
- The site is well served by road access, with A-road links connecting the surrounding settlements and facilities, including Oxford Parkway Park and Ride (10 minutes away) and Oxford International Airport, the Thames Valley area's primary regional and business aviation airport, directly to the east
- The A44 is situated along the boundary of the site and is serviced by several bus routes.

- Safe, direct access for vehicular traffic can be delivered onto the A44, and cycle access from the site to the wider National Cycle Network.
- A new park and ride service will be located off the A4095 next to the airport.
- A network of pedestrian and cycle routes will be created on the development that reach out towards the surrounding landscape, providing sustainable routes to Park View to the west and to Oxford Road in the south, connecting to existing bus routes and to the proposed park and ride on the A4095.
- Secure cycle parking facilities will be provided within the masterplan at key public spaces including the focal green space in the centre of the masterplan, and next to areas of open space. The parking should integrate with the surrounding public realm.
- Cycle parking for residents will be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building or garage/shed. If external residents/visitor cycle parking is used it should be covered and located close to building entrances.
- Charging points and secure parking facilities will be provided communally for electric bicycles to encourage greater use of these forms of personal transport.
- Where cars are used, the intention is to provide car parking spaces with electric charging points, and infrastructure will be installed from the outset to allow for this.
- The application will consider supporting a car club scheme during the operation of the development, for example car clubs (e.g. Zipcar), web-based ride-sharing (e.g. Liftshare), ride-pooling (e.g. UberPool), car-pooling and demand responsive transport (e.g. dial-a-ride).

4.5. Biodiversity

The loss of ecosystem services poses wide ranging threats to our health and wellbeing. Ecosystem services are linked to economic success, so protecting and enhancing these services is essential to the delivery of long-term sustainable outcomes. New developments can play a role in protecting and enhancing biodiversity and habitat connectivity.

Blenheim Estate Homes are demonstrating thought leadership through developing strategies to add value via which biodiversity, a core value and indicator of Natural Capital Value. Promoting and protecting biodiversity and green infrastructure is also a sustainable design principal core to the development.

Objectives and Targets

The Land east of Park View site gives opportunity for high quality landscaping, with significant Green Infrastructure provision within the proposal, to assimilate the development into the landscape. An evaluation of the biodiversity of the site has been undertaken, with a mitigation hierarchy applied for the species that are appropriate for the site. The existing sensitive features within the site will be protected and retained wherever possible and enhanced with new features that are characteristic of the landscape.

- Protect and enhance the existing landscape, heritage, and ecology assets
- Create an attractive and verdant landscape setting for the new homes
- Create a strong network of well-connected green spaces
- Provide an intrinsic green infrastructure creating a series of varied and attractive amenity spaces alongside important enhanced habitat areas and corridors to increase overall biodiversity on site

- Ensure that drainage solutions are positively integrated into the green network whilst delivering biodiversity benefits
- Retain and enhance the public right of way with new footpaths and cycle links creating accessible open space and connectivity through the site, to Land east of Park View and the wider countryside.
- An overall increase in habitats of conservation value within the site, including hedgerows, attenuation ponds, lines of trees, woodland and scattered scrub.
- Improved functional ecological corridors throughout the site for commuting, foraging and dispersal by a range of species, including bats, birds, small mammals, amphibians, reptiles and invertebrates.
- The proposal is targeting at least 20% biodiversity net gain.

The north-east area of the site provides the opportunity to incorporate play space and allotments, which will be connected through corridors to the southwestern green space.

- A landscape-led and nature focused approach to the masterplan will deliver extensive tree planting, green streets, edible landscapes and allotments, and a network of green corridors through the development and beyond.
- The landscaping will ensure that the built form is surrounded by trees and shrubs to provide a green entrance to Woodstock from the Oxford Road.
- The site will contain green corridors to allow the dwellings to have direct access to greenspaces.
- There will; be dedicated areas of open space consisting of amenity grassland for informal recreation.
- Small woodland groups to form sense of enclosure and soften the southern and western development edge and strengthen wildlife corridors
- Ecological enhancements to retained native hedgerows with infill planting, hedgerow trees, native scrub edges and long grassland margins.
- Green wedges widening green corridor connections out to wider open space, softening the development edge
- Manage the existing semi-improved grassland as a species rich wildflower habitat to increase insect numbers and provide cover for reptiles
- Where new tree and scrub planning is proposed, only native species are to be used.
- The developments will incorporate hedgehog highways, bee bricks, swift boxes and other wildlife initiatives will help establish new resilient habitats.

The existing woodland belts to the northeast of the site will largely be retained and enhanced, except for the tree removals required to accommodate the new junction. The enhancements will support existing and new habitats, whilst improving its landscape structure. This will be achieved through infill tree planting and scalloped edges, with layers of native scrub planting and long grassland margins to promote ecological diversity. A new block of woodland planting will be provided adjacent to the new junction to mitigate the tree removals and to help to define a new setting for the gateway into the site.

In planting new trees, native species (or agreed cultivars) will be used. Species chosen will be used to match locally prevalent species that will benefit local bird, insect and mammal species. New trees within the development will be located to create an instant high-quality landscape feature and green landmarks on street junctions and nodal points. These will be as a single tree or small groups.

The development will use greenways to create a strong landscape structure through the development area (approximately 15m wide) providing important spaces for both people and wildlife. The greenways alignment has been derived by the key movement routes across the site from the western and southern points of interest, towards the community park and linking to the primary road infrastructure and development edges. Opportunities for long grassland meadows, pockets of wildflower meadows, tree and shrub planting will enhance the local biodiversity and the greenways role as a wildlife corridor. Natural play and small attenuation features will also weave through these greenways.

4.6. Sustainable Construction Materials and Waste

The environmental impact of materials and resources used during construction is significant to the whole life carbon performance of a development. Early commitment to reducing the embodied carbon and environmental impact of materials and resources and considering sourcing, conservation and re-use and help deliver a more sustainable outcome. Utilising materials that are also local and resilient can reduce longer term negative environmental impacts. Moving towards a more sustainable model of resource use and waste management is fundamental to achieving sustainable development. The management of waste can deliver positive environmental and economic outcomes during both the construction and operation of a development.

The Land east of Park View development has a significant requirement for construction materials and presents an opportunity for more sustainable procurement of materials through economies of scale and the opportunity to influence procurement and transportation of materials. Waste will be considered both in terms of reducing the generation of waste associated with excavation and construction and also in terms of delivering a development that provides efficient systems for waste management during operation.

4.6.1. Sustainable Construction

Careful selection of materials including sourcing local materials where possible as well as materials from sustainable sources. The material choice depends upon what is readily available from the surrounding areas. The materials at land east of Park View have been chosen to respect the existing local character of Woodstock. The palette of materials comprises of yellow limestone, reconstituted stone and random coursed limestone for the walls. The roofscape includes natural slate and clay tiled pitched roofs and brick chimneys providing roofscape interest. Homes front the street with both gable ends and side gables.

- Automated monitoring of energy and water consumption across the development through a management system.
- Ensuring protection of landscape features, including important hedgerows and trees, throughout the construction period. – The project commits to protecting hedges and trees during the construction process
- Waste minimisation by 'designing out' from the project and limiting waste arising during the construction phase. This involves promoting the use of recycled materials, re-using on site where possible, and disposing of any waste in the most sustainable manner.
- The project will commit to using local contractors where appropriate
- Adherence to a Construction Environmental Management Plan which will set out the project will avoid, minimise or mitigate effects on the environment and surrounding area. This will set out a framework within which the measures to maintain best practice procedures will be implemented throughout the project
- Efficient construction techniques and materials selection will prioritise low embodied carbon where appropriate. As the design progresses, the embodied carbon of the products in the specification will be carefully considered to minimise the carbon impact of the material chosen.
- As part of the tender process, the contractor will be expected to sign up to the considerate constructor's scheme
- All properties are provided with adequate external storage space for bins and recycling as well as vehicles and cycles

The design will aim to maximise opportunities for re-use, recycling and recovery of waste materials. The design will also identify potential opportunities for reducing waste and seek to maximise opportunities for re-use, recycling and recovery of waste materials and thereby minimise the volume of waste to landfill. All

A Waste Strategy will be developed for the site during construction and operation phases to provide a planned approach to resource and waste management; to identify the likely quantities and composition of waste that would be generated; and to propose appropriate waste management options that would optimise the management of waste generated during the construction and operation phases. The strategy will encourage saving space (for segregation, storage, collection, treatment and/or disposal). The impact of traffic associated with the movement of waste should be minimised wherever possible, through careful on-site management; reducing need to import and export of materials and limiting the off-site disposal of recyclables and disposal of residual waste to landfill.

The design will adopt principles which support the use of materials in an efficient manner and should consider how the reuse, recycling and recovery of materials can be incorporated into the design to ultimately reduce the quantities of waste sent to landfill. Waste reduction would be addressed as part of the project sustainability agenda throughout the design process, by the application of principles detailed within the WRAP guidance 'Designing out Waste: A design team guide for Buildings' that would address the five principles of:

- Design for reuse and recovery of materials and components.
- Design for off-site construction/manufacture.
- Design for materials optimisation.
- Design for efficient procurement and delivery systems; and
- Design for deconstruction, flexibility and adaptation.

The lifecycle environmental cost of construction materials and components will be considered, including their suitability for adaptation or re-use. These decisions should be documented to support design decisions as the project progresses and ensures that all opportunities for efficiencies are captured. This should cover:

- The costs of extracting raw materials
- The renewable nature of raw materials
- Energy costs in the manufacture of materials
- The environmental impact of manufacture of materials
- The environmental costs of transportation to site.
- The ease of re-use and/or recycling

A Designing Out Waste workshop will be conducted with the aim of identifying key material use and waste management that may be adopted by the project through the design and construction phases. Several opportunities for circular economy will be considered, which should feed into the Site Waste Management Plan, including:

- Recycling and/or reuse of existing materials and equipment
- Managing materials and waste demands with the wider site
- Engaging with local community on material resourcing
- Prioritising local suppliers
- Donating existing or excess to local groups / organisations
- Engaging with take-back schemes
- Standardisation of materials
- Regular review and monitoring with delivery teams to manage waste recycling opportunities.

The development will provide safe and convenient access for waste recycling, ensuring that signage is clear and encouraging residents to recycle as much as possible.

4.6.2. Water use and Flood Risk

Climate change is likely to impact on water supply and management due to increasing irregularity in precipitation patterns and a higher likelihood of droughts. Protecting and conserving water supplies and resources in a sustainable manner is seen as an urgent priority.

The design team must seek to protect and enhance the water environment through careful design. This will include identifying drains, designing operational pollution prevention measures, and incorporating sustainable drainage systems where possible and appropriate. The design should take steps so that no new pathways are opened that could cause migration of pollutants from the site into ground water.

4.6.2.1. Objectives and Targets

The development will be designed to conserve water. The primary aim will be to reduce potable water consumption as much as possible, and then having reduced the demand, to provide the water, where feasible, from non-potable water collected on site.

As the design develops, more specific targets will be set on the water rates of the development. As a minimum, the project will aim to specify fittings that use less than 105 litres/person/day in line with HQM level 4. Careful consideration of the design and products chosen will make sure that water efficiency is a priority on this project. Feasibility studies on water recycling systems will be undertaken as the design progresses. Rainwater butts will be provided

4.6.3. Flood Risk and Surface Water Runoff

A hierarchical approach has been undertaken in consideration of the application of SuDS in relation to the development. This is in order to meet the design philosophy of ensuring that surface water run-off is managed as close to its source as possible, and the existing situation is replicated as closely as possible.

Infiltration techniques such as permeable paving, swales, trenches, soakaways, etc. are suitable to reduce the runoff leaving the site and addressing it at source, particularly to the eastern side of the development. The project will ensure that drainage proposals are carefully integrated into the green network and deliver benefits for biodiversity

All the private parking bays will be permeable paved surfaces because this is where oil spillage is most likely to occur and, with adequate aggregate sub-bases, permeable paving can provide water quality treatment as it breaks down hydrocarbons. Catchment areas for each SuDS feature will include 10% of urban creep as per LLFA guidance.

4.7. Voluntary Standards for Sustainability.

All new homes will be designed to meet the Passivhaus Standard.

5. CONCLUSION

This statement provides the outline approach to the sustainable measures that will be implemented on the project and forms the basis of a framework that will ensure that this is an exemplar project. It provides an assessment of the sustainability initiatives that are being undertaken on the project, in line with and often exceeding the standards set out in both national and local planning requirements.

Blenheim Estate Homes recognise that as long-term landowners, they have a responsibility to their local communities. Delivering a sustainable development is fundamental to meeting that social, moral and economic responsibility. Blenheim Estate Homes are committed to upholding these high standards through focus on design, community, wellbeing, materials sourcing and environmental impact.

Through the Land east of Park View Development, Blenheim Estate Homes are committed to achieving an exemplary development in terms of sustainability, with focus on environmental, social and economic measures to deliver this. The development will achieve large reductions in operational carbon down to zero through onsite energy generation.

6. APPENDICES

- 6.1. Appendix a Land East of Park View Housing Development Energy Statement