The Holme and The Homestal

Overarching Energy and Sustainability Statement

December 2025

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One Horton Heath: Overarching Energy and Sustainability Strategy

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Executive Summary

This statement forms the overarching sustainability and energy strategy for the Reserved Matters applications at One Horton Heath, a mixed-use phased development comprising of up to 2,500 homes, a local centre, office and other commercial and industrial spaces, a primary school, public open spaces, key infrastructure and associated ecological, landscape and demolition work.

Outline permission was granted in October 2025, with the first phase already on site. It is the hope of the Eastleigh Borough Council (One Horton Heath Team) to progress the development forwards and secure reserved matters planning permission for the remaining parcels of land. The key overarching energy and sustainability strategies are as follows:

Energy and Carbon

The site will be all-electric (no gas), using heat pump technology to supply heating and hot water to dwellings and non-residential buildings. The preferred options are air source heat pumps or grouped ground source heat pumps. The energy hierarchy will be followed, focusing on passive design measures (with fabric u-values in line with Part L 2021 regulations) and energy efficiency building services, as well as the consideration for renewable energy such as solar panels.

A 19% carbon reduction for residential units will be targeted. Site-specific energy calculations can be found in the individual RM applications for that land parcel.

Climate Change Resilience

It is important that the proposed development is active in mitigating the future impacts of climate chang, preparing for hotter drier summers and wetter winters. This can include ensuring thermal comfort (through undertaking overheating assessments for residential units), reducing water use, incorporating sustainable drainage with strategic planting, and maintaining areas of vegetation and green infrastructure.

Water and Drainage

Residential units will target a 95l/person/day water consumption, in line with Condition 74, utilising low-flow fittings to reduce water consumption, as well as providing water collection measures such as water butts into rear gardens for irrigation.

A range of sustainable urban drainage solutions will be implemented across all parcels of land, comprising above ground storage within green corridors that follow onsite watercourses. A SuDS management train will be followed to address runoff from individual land parcels,

Health and Wellbeing

A number of measures are in place to ensure the health, wellbeing and safety of the residents at One Horton Heath, focusing on: thermal comfort and mitigating the risk to overheating in dwellings by providing openable window and appropriate glazing ratios, maintaining good air quality across the masterplan by providing all-electric heating systems which require no on-site combustion, and ensuring safe acoustic levels across the site by considering building locations and orientations to reduce vulnerability to elevated noise.

Nature and Biodiversity

The integration of green infrastructure is recommended across the development, including strategic planning and the incorporation of SuD systems. The ecological functionality of habitats across the wider masterplan will be maintained and enhanced wherever possible, during both construction and operation.

Biodiversity net gain assessments will be produced to demonstrate a positive net gain at each land parcel, where required.

Materials, Waste and Recycling

The development will aim to minimise construction and operational waste management through the implementation of the waste hierarchy and circular economy principles. Provision for the segregation and storage of non-recyclable and recyclable waste should be designed to encourage good recycling habits.

Responsible sourcing of materials should include the practise of selecting materials with low Global Warming Potentials and low VOCs, ensuring timber is responsibly sourced, and that efforts are made to select materials with low embodied carbon across all layers of the building envelope.

Sustainable Transport

Provision will be made to prioritise sustainable methods of transport within the development for residents by creating footpaths and cycleways alongside main roadways and enhancing the existing public right of ways. Electric vehicle charging infrastructure will be supplied throughout the development, in the form of both active charging ports on private driveways, as well as passive infrastructure ready to provide connections where required in the future.

For detailed information related to the energy and sustainability strategies within the individual land parcels, please refer to the technical RM addendums for those sites.

1 Introduction: One Horton Heath

1.1 Project Context

The site for the One Horton Heath masterplan is in the Borough of Eastleigh in Hampshire; the land is located to the west of the existing village of Horton Heath, which in turn sits between the local centres of Hedge End and Fair Oak. Eastleigh Borough Council (EBC) (the 'Applicant') acquired the 310-acre development area in March 2018, and have created a project Vision, which helped to provide direction and objectives for the proposed development.

The One Horton Heath Vision (2019)

A project vision from EBC was shared in July 2019:

> *"People are at the centre of our vision – the community that already live and work in Horton Heath, and the people who will live and work within the village in years to come. This project will create an exemplar development, which is integral to Horton Heath engendering pride and a strong sense of place. The local area, and by extension the Borough, will become Greener, Healthier, more Prosperous with a more diverse supply of Housing as a direct result of this project."*

One of the key visions from this report was for a Greener Borough, where investments are made in the environment to achieve a biodiversity net gain, building designs have a reduced energy demand and reduced reliance on unsustainable energy sources, where it seeks ways to reduce water consumption and protect/enhance existing natural assets. The objectives to achieve these visions include:

- Delivering a development which is highly energy efficient, with buildings that have minimal energy demand and net zero carbon emissions.
- Delivering a development which is not reliant on fossil fuels to meet its heating or energy demands.
- Delivering a development which maximises opportunities for sustainable generation of energy on-site.
- Delivering an exemplar scheme in terms of water consumption, actively seeking innovative means to reduce consumption of mains potable water.
- Deliver high quality and multi-functional green infrastructure which serves the needs of the development and mitigates for its impacts.
- Plan waste storage and collection arrangements such that domestic refuse bins are generally not visible from public areas, and to encourage and allow greater levels of recycling than is achieved across the borough as a whole.
- Proactively seek ways to minimise the impacts of construction on the existing community, highway network and the environment.

1.2 Development Proposals

Outline Planning Permission (O/20/89498) was granted for One Horton Heath in October 2025 for a phased mix-use development comprising of:

- Up to 2,500 homes;
- A (primary) local centre (and supporting secondary local centre) comprising mixed-use residential/retail/leisure/community/employment/day nursery/food establishment uses;
- Offices, commercial and industrial uses;
- A primary school;

- Public open space including formal sports facilities and informal provisions;
- Key infrastructure and utilities provision including new roads, footpaths and cycle paths and improvements to the existing road junction at Fir Tree Lane/ Burnetts Lane, and
- Ecological, landscape, site preparation and demolition work.

Phase One (The Lower Acre) (F/20/89500) was granted detailed planning in December 2022, which is currently onsite to deliver the first 381 new homes.

Figure 1 One Horton Heath Masterplan

1.3 Approved Outline Energy and Sustainability Statement

A Sustainability and Energy Statement was undertaken by Hilson Moran in September 2024 as an update to the outline planning application. This sets out a comprehensive study of energy, carbon and sustainability measures which are feasible across the proposed development, including a review of the Net Zero Carbon Feasibility Study which was also produced by Hilson Moran in January 2020.

The main headlines from this report include:

- The development will be a heat-pump led scheme to reflect the decarbonisation of grid electricity, with either grouped or individual heating systems preferred over a site-wide heating network.
- Consideration of solar photovoltaic generation, where feasible.
- Encourage exemplar water consumption targets for new residential developments at no more than 95 l/person/day.
- A range of sustainable approaches to flood risk and drainage, waste management, transport, ecology, materials and embodied carbon, and health and wellbeing are considered.

Outline planning permission was granted subject to a number of conditions, including that the Outline Energy and Sustainability statement was implemented in broad accordance with the provisions it detailed surrounding energy and sustainability (Condition 75), and that domestic water consumption is kept below 95 litres/person/day (Condition 75).

Since this report was written, updates to some fabric u-values will be required to bring these in line with current Building Regulations (Part L 2021). This will influence the site-wide energy and carbon reductions, especially as these were also based upon improvements against a Part L 2013 baseline.

1.4 Purpose of Report

The focus of this report is to provide a review and update from the outline Energy and Sustainability Statement, to illustrate that any proposals continue to align with national Building Regulations and that a clear overarching sustainability and energy strategy is in place for all remaining reserved matter applications. Where updates to outline reports for other disciples have been submitted which relate to sustainability or energy, such as sustainable drainage strategies and biodiversity, these have been reflected in this report.

Where necessary, separate technical addendums with more site-specific information can be found for individual Reserved Matters parcels.

2 Policy Context

2.1 National Policy

2.1.1 National Planning Policy Framework (NPPF)

The Framework was last revised in December 2024 (with minor corrections in Feburary 2025), replacing the previous update in December 2023. All new Local and Neighbourhood Plans and reviews must align with the polices of the Framework.

The Framework states clearly that the purpose of planning is to help deliver sustainable development and defines three mutually dependent pillars that must be equally considered to achieve this:

- Economic
- Social
- Environmental.

There is a clear focus upon: promoting high-quality design for new homes and places, offering stronger protection for the environment, constructing the right number of homes in the right places and focusing on greater responsibility and accountability of councils and developers for housing delivery.

2.1.2 Climate Change Act 2008 (2050 Target)

The Climate Change Act 2008 established a legally binding framework for the UK to reduce greenhouse gas emissions and adapt to climate change. It originally set a target to cut emissions by 80% by 2050 compared to 1990 levels, introduced five-year carbon budgets to guide progress, and created the Climate Change Committee to advise the government. The Act also required the development of a National Adaptation Programme and enabled emissions trading schemes.

In 2019, the 2050 Target Amendment Order revised the original goal to achieve net zero emissions by 2050, making the UK the first major economy to legislate for this target. This amendment allows for residual emissions to be offset through natural or technological means and permits the use of international carbon credits, although the Climate Change Committee recommended a domestic-only approach.

2.1.3 Building Regulations

Conservation of Fuel and Power, Part L 2021

Developments need to meet the standards set within Building Regulations Approved Document Part L - Conservation of Fuel and Power in Dwellings (L1A) and New Buildings other than Dwellings (L2A). The standard includes a minimum level for regulated carbon emissions defined by the Target Emission Rate.

The Part L 2021 update (June 2022) requires a 31% and 27% reduction in carbon emissions from the previous Part L 2013 regulations for dwellings and non-residential buildings, respectively. It also saw new SAP 10.2 carbon factors for residential electric and gas use, the former seeing a larger carbon reduction from the SAP 2012 values, as well as more insulating notional fabric u-values for both residential and non-residential buildings.

Overheating, Part O 2021

The Building Regulations Part O (2021) were introduced to address the growing risk of overheating in new residential buildings in England, particularly in light of climate change and increasingly airtight construction. Effective from 15 June 2022, Part O requires developers to design homes that limit unwanted solar gain and provide effective means of removing excess heat. The regulations apply to all new dwellings, including care homes and student accommodation, but exclude hotels.

Compliance is guided by Approved Document O, which outlines two main approaches: a simplified method based on limits to glazing ratios, window orientation, and minimum opening areas; and a dynamic thermal modelling method (e.g. TM59) for more complex or constrained designs. Key considerations include building orientation, glazing proportions, ventilation strategies, and external factors like noise, pollution, and security, which may affect the feasibility of natural ventilation. The aim is to ensure thermal comfort, reduce reliance on mechanical cooling, and support sustainable, resilient housing design.

Water Efficiency and Sanitation, Part G (2015)

Building Regulations Part G (2021) focuses on ensuring safe, efficient, and sustainable water use in buildings across England. It sets out requirements for sanitation, hot water safety, and water efficiency, applying to new builds, extensions, conversions, and major renovations. The regulation is divided into six key sections:

- Cold Water Supply (G1): Requires a wholesome and safe supply of cold water.
- Water Efficiency (G2): Limits average water consumption to 125 litres per person per day, with some developments targeting 110 litres. Compliance is assessed using a Water Efficiency Calculator or a fittings-based approach.
- Hot Water Supply and Systems (G3): Ensures safe installation of hot water systems, including temperature controls to prevent scalding and safety measures for unvented systems.
- Sanitary Conveniences and Washing Facilities (G4): Mandates adequate provision of toilets, basins, and washing facilities.
- Bathrooms (G5): Requires at least one bathroom with a wash basin and either a bath or shower.
- Food Preparation Areas (G6): Specifies the need for a suitable sink in any area where food is prepared.

Part G supports public health, safety, and environmental sustainability by promoting efficient water use and safe plumbing design. Amendments in 2024 aligned Part G with new requirements under Part T (Toilet Accommodation) and updated references to reflect current standards.

Electric Vehicle Infrastructure, Part S (2021)

Building Regulations Part S, introduced in England and effective from 15 June 2022, sets out requirements for the installation of electric vehicle (EV) charging infrastructure in new and significantly renovated buildings. It applies to:

- New residential and non-residential buildings
- Buildings undergoing a material change of use to dwellings
- Major renovations of residential, non-residential, and mixed-use buildings

The key requirements are:

- New residential buildings with associated parking must include at least one EV charge point per dwelling.
- Residential buildings undergoing major renovation (10 or more dwellings) must provide one charge point and cable routes for all remaining parking spaces.
- New non-residential buildings and those undergoing major renovation with 10 or more parking spaces must include at least one EV charge point and cable routes for at least 20% of the remaining spaces.

These measures aim to futureproof buildings for the transition to electric vehicles and support the UK's net zero carbon goals.

2.1.4 Future Building Regulation Updates

The Future Homes Standard (FHS) and Future Buildings Standard (FBS) are upcoming UK regulations designed to ensure that new homes and buildings are "zero-carbon ready"—meaning they will produce significantly lower carbon emissions and won't require retrofitting to meet future net zero targets. They will replace and significantly update current Building Regulations including Part L, Part F (Ventilation), Part 6 and Part O.

FHS

This will be focused on new residential buildings, aiming to reduce carbon emissions by 75–80% compared to Part L 2013 standards. Key changes in FHS will likely see higher performance building fabrics (the tightening of fabric u-values), low-carbon heating systems (such as heat pump technology), improved ventilation and the likely inclusion of rooftop solar panels. The goal is to ensure that homes are built to be compatible with a decarbonised electricity grid and do not require future retrofitting.

It is expected that any site registered before December 2026 will have until December 2027 to begin construction, and those plots can continue to follow Part L 2021 regulations. In contrast, plots registered from January 2027 will need to meet the new FHS standards.

FBS

FBS is the companion standard but for non-domestic buildings. Key features will include a similar emphasis on low-carbon heating and energy efficiency, with a phase-out of fossil fuel heating systems (e.g. gas boilers). It will focus on electrification and heat networks, to align commercial and public buildings with the UK net zero targets.

2.1.5 Environmental Act (2021) Biodiversity Net Gain

The UK's national policy on Biodiversity Net Gain (BNG), established under the Environment Act 2021 and reinforced by the Environmental Improvement Plan, requires developers in England to deliver at least a 10% net gain in biodiversity compared to the pre-development baseline. This gain must be maintained for a minimum of 30 years and can be achieved through onsite habitat enhancements, offsite habitat creation, or purchasing statutory biodiversity credits. Developers must submit a Biodiversity Gain Plan using statutory metrics to quantify habitat value.

The policy supports broader environmental goals, including protecting 30% of land and sea for nature by 2030, and encourages private investment in nature recovery. It is monitored through a national register and enforced by local authorities, though challenges remain around ecological expertise and strategic habitat placement.

2.2 Local Policy

2.2.1 Eastleigh Borough Local Plan 2016-2036

The Eastleigh Borough Local Plan was adopted in April 2022 and sets out the policies and strategies to guide development in the borough until 2036, covering housing, infrastructure, and environmental protection. Key elements of this plan include:

Policy DM2 Environmentally Sustainable Development

The Borough Council requires that:

1. All new build residential development (C3 Use Class only) must achieve at the time a Reserved Matters or Full Planning Application is submitted:
    a. a **19% improvement in predicted carbon emissions**, compared with the building regulations standard current at the time, through increased energy efficiency of the building fabric, unless this is superseded by an updated building regulations requirement equivalent to 'zero carbon homes';
    b. a predicted mains water consumption of no more than 110 litres/person/day.
2. All other development that is above 500 sq.m of floorspace measured externally (including extensions and conversions to existing buildings) must achieve **BREEAM 'excellent'** (or equivalent) or **BREEAM 'very good' plus 'passivhaus' certification including a 15% improvement in predicted carbon emissions**, compared with the building regulations current at the time, through low or zero carbon energy generation on site or in a Borough location agreed by the Council.

Policy DM3 Adaption to Climate Change

All development should be designed to adapt to the predicted climate change impacts for the Borough. To reduce the potential impacts of surface water flooding, sustainable drainage systems need to be implemented as part of an integrated SuDS strategy for the site in accordance with policy DM6 (Sustainable surface water management and watercourse management) and as part of the landscape framework for the site including green open space and green roofs where appropriate.

New development should have a cooling strategy which can include cooling through generous green infrastructure and trees, areas of shade, water cooling, building design and orientation to reduce overheating, 'cool roofs' or green roofs and green walls or porous cool pavements. To adapt to water stress, new development should be designed to reduce demand. Measures can include: reduced residential mains water consumption (as per policy DM2) water efficient appliances, fittings and leak detection devices for non-residential and non C3 use class residential development, rainwater harvesting and grey water recycling, drought resistant landscape design and planting.

DM6 Sustainable Surface Water Management

New development (excluding extensions to dwellings and changes of use), will only be permitted if it incorporates Sustainable Drainage Systems (SuDS). Wherever feasible, naturalised filtration should be included within the treatment train as follows:

1. On sites of 1 hectare or more, or within 100m of the River Itchen SAC or Solent Maritime SAC, SuDS schemes should include at least three forms of naturalised filtration. On sites within 100m of headwaters and tributaries draining into a SAC, SuDS schemes should include at least three forms of naturalised filtration unless hydrological studies and project-level Habitats Regulations Assessment demonstrate this to be unnecessary to protect the integrity of the SAC and its qualifying features;
2. On other sites of between 0.5 hectares and 1 hectare, SuDS schemes should include at least two forms of naturalised filtration; and
3. On other sites of less than 0.5 hectares non-naturalised SuDS e.g. permeable paving will be considered where justified.

To reduce flooding and maintain water quality in line with Policy DM8, SuDS schemes must be designed and monitored using the CIRIA C753 SuDS Manual or equivalent guidance, recognising that all receiving waters in Eastleigh are protected. Surface water runoff should be managed as close to its source as possible, with discharge rates reduced to mirror greenfield conditions. SuDS must be included in all outline and full planning applications and incorporate long-term maintenance arrangements. Where discharge affects wetland or wet woodland habitats, flows must follow natural hydrological pathways. Watercourses on development sites should be retained or restored, with culverting generally not permitted; existing culverts should be removed where possible to increase flood storage. Site layouts must allow for watercourse maintenance. Additionally, where development drains into waterways linked to the Natura 2000 or Ramsar network, a site-specific Construction Environment Management Plan must be prepared prior to permission.

DM8 Pollution

Policy DM8 focuses on preventing and managing pollution from new development to protect public health and the environment. It restricts proposals that could cause unacceptable levels of air, water, noise, light, or land pollution, and requires mitigation for sensitive uses. Contaminated land must be remediated before development, and construction impacts must be managed through a Construction Environmental Management Plan. Developments near Air Quality Management Areas must include measures to reduce emissions, and all proposals must avoid deterioration of water quality, control noise and light impacts, and follow best practice in pollution assessment and mitigation.

2.2.2 Eastleigh Borough Council SPD

The Eastleigh Borough Council Supplementary Planning Documents (SPDs) are a set of detailed guidance documents that support the implementation of policies in the Eastleigh Borough Local Plan 2016–2036. These SPDs are used to clarify and expand on specific planning topics, helping developers, planners, and stakeholders understand how to meet policy requirements.

Environmentally Sustainable Development SPD

This document was issued by the Council in 2009, and despite the Deregulation Act of March 2015 which meant that the requirement to certify new dwellings against the Code for Sustainable Homes could no longer be required, the policies ESD2-ESD8 of this document still apply:

- ESD2 – Rainwater Harvesting / Greywater Recycling: Required for flatted residential, non-residential, and multi-residential developments and must supply WC flushing and other uses, unless green roofs are provided.
- ESD3 – External Water Consumption: Residential developments must demonstrate use of rainwater for garden irrigation.
- ESD4 – Reducing Surface Water Runoff: Post-development runoff rates and volumes must not exceed pre-development levels. All roofs and hard surfaces must be drained via SuDS and a full drainage report is required.
- ESD5 – Passive Solar Heat Gain: Building orientation and design must maximise winter solar gain and minimise summer overheating, and this must be demonstrated in the Design and Access Statement.

- ESD6 – Carbon Dioxide Reduction: Residential developments must see at least 10–15% of energy coming from local low/zero carbon sources. Non-residential must achieve BREEAM Ene 5 credits for similar reductions, and contributions to a Carbon Free Fund may be negotiated if targets can't be met on-site.
- ESD7 – Green Roofs: At least 80% of roof area must be green roofs for flatted residential and non-residential buildings. Alternatively, compliance with ESD2 (water recycling) or a combination of both.
- ESD8 – Trees: A minimum number of new trees should be planted on street and in gardens. Maintenance contributions required for trees in adopted areas.

2.3 OHH Outline Planning Conditions

The outline planning application for the wider masterplan at One Horton Heath was approved, subject to conditions; the conditions which will be applicable to the design strategies and approach for this report include:

Condition 33

Unless otherwise agreed by the Local Planning Authority any Reserved Matters Application which seeks approval for non-residential development above 500sqm floorspace measured externally shall be submitted with full details of sustainable design and construction to demonstrate achievement of **BREEAM New Construction "Excellent"** rating (or equivalent),or BREEAM 'very good' plus 'passivhaus' certification including a 15% improvement in predicted carbon emissions, compared with the building regulations current at the time, through low or zero carbon energy generation on site or in a Borough location agreed by the Council, maximising energy-efficient passive design principles, use of natural daylight and ventilation, use of recycled, low embodied carbon, low environmental impact and locally sourced materials in construction, cooling strategies and water efficiency measures to adapt to climate change where possible. The approved details shall be fully complied with and a BREEAM Certificate provided to the Local Planning Authority within 6 months of the first occupation of any relevant non-residential building. Reason: to provide for sustainable development in accordance with Policies DM2 and DM3 of the Eastleigh Borough Local Plan 2016-2036.

and

Condition 74

The development shall be implemented in broad accordance with the provisions detailed in the Energy and Sustainability Statement (Hilson Moran, September 2024) and Sections 4.2-4.6 of the Utilities and Foul Water Statement 26114-RP-IE-002 Issue 02, 10 May 2021. Prior to the occupation of any building within each sub-phase of each reserved matters phase of the development (or, in accordance with a timetable to be agreed in writing with the Local Planning Authority), an as built stage water efficiency calculation for that building in accordance with the Government's National Calculation Methodology for assessing water efficiency in new dwellings demonstrating that the predicted internal mains water consumption will achieve a maximum water consumption of no more than **95 litres/person/day** shall be submitted to and approved in writing by the Local Planning Authority. All measures necessary to meet the agreed wastewater efficiency calculation shall be fully installed before first occupation and retained thereafter for the lifetime of the development with any subsequent replacement of measures achieving the equivalent or higher standards of water efficiency to those approved. Evidence of compliance with the predicted water consumption post occupation shall be submitted within 12 months of first occupation all dwellings which shall demonstrate the installation and effectiveness of water consumption limitation works. If the works do not achieve a maximum water consumption of 95 litres/person/day alternative water consumption and associated updated nitrate mitigation provision shall be submitted to and approved in writing by the Local Planning Authority in accordance with Condition 76.

3 Energy and Carbon

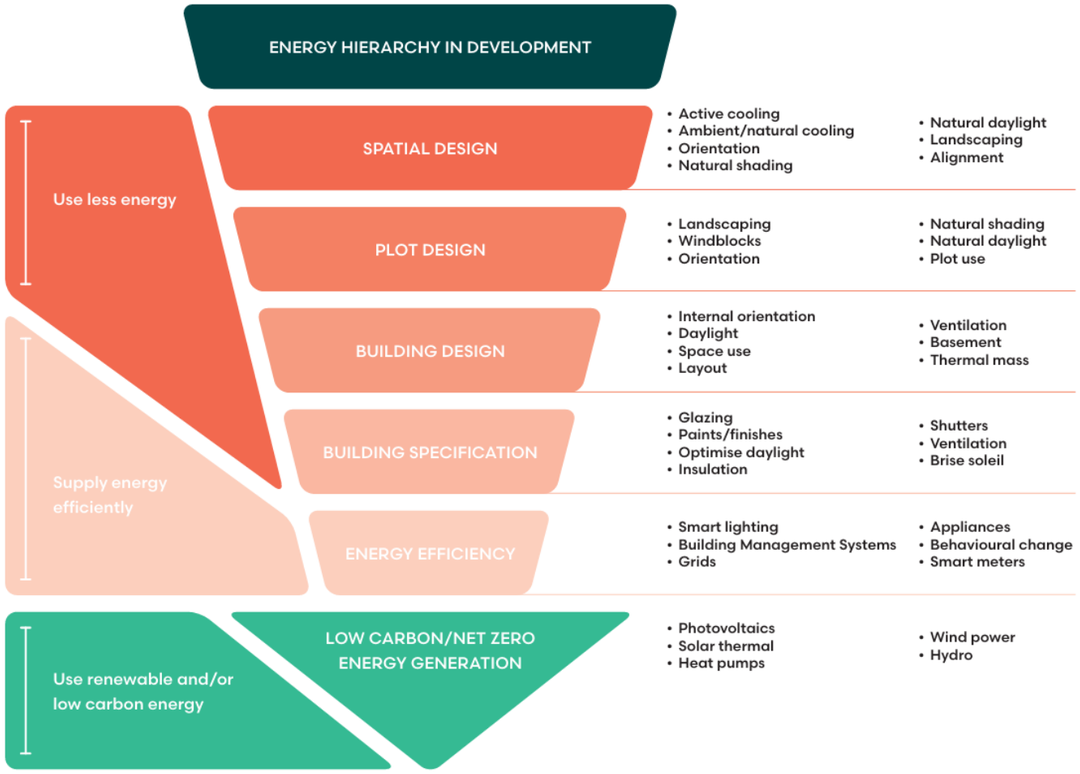
3.1 Updates in National/Local Policy

It should be noted that since Phase One (The Lower Acre) came forward with their detailed planning application submission in early 2021, the Eastleigh Brough Local Plan 2016-2036 was adopted (April 2022). Whilst this parcel of land has already been secured, any subsequent Reserved Matters or Detailed planning applications will need to adhere to the new Local Plan and associated policies, like DM2, and any updated to national Building Regulations, such as the updates to Part L 2021. Considerations should also be given to the emerging FHS and FBS standards, set to come into effect in the next couple of years.

3.2 Energy Hierarchy

The energy hierarchy is a classification of energy strategies, prioritised to assist progress towards a more sustainable energy system. The priority and foundation for the energy strategy is a fabric first approach, which will **reduce energy demand**; this is done through high-performance fabric U-values and is widely regarded as best practice to reduce primary energy demand, through passive design solutions.

The second step is **energy efficiency**; this is done through a high -performance building services specification i.e., highly efficient heating systems (ASHPs), low energy lighting etc. The final step is to use **renewable energy generation** technologies i.e., solar PV.



Energy Hierarchy in Development

3.2.1 Reduce Energy Demand

Fabric First Approach

Often referred to as a 'fabric first' approach, passive design options are those which utilise building form, orientation, massing and glazing ratios to exploit the natural surroundings of the site to help reduce energy demand. When combined with a selection of energy-efficient building services, this is often the most cost-effective way to significantly reduce CO_2 emissions.

Passive design approaches are not dependent on occupier behaviour; therefore, the carbon reductions are guaranteed for the lifespan of the building rather than the duration of the relevant plant item. Additionally, there are minimal maintenance and/or replacement costs to maintain carbon reductions through improved fabric.

Since the fabric strategy was determined in the approved outline E+S report, national building regulations have been updated from Part L 2013 to Part L 2021; this means that the non-domestic exposed floor and roof fabric u-values, 0.22 W/m²K and 0.26 W/m²K respectively, will need to be improved to fall in line with limiting Part L2A 2021 u-values as a minimum. It has been recommended that the fabric values should follow the Part L notional values, which starts to move towards the incoming Future Buildings Standard. The residential u-values for several materials, including external walls and windows, go beyond the Part L 2021 notional fabric values.

As updates to Building Regulations are introduced, such as Future Homes Standard and the Future Building Standard which are expected to take effect in 2027, the proposed fabric should align with these u-values where required.

Table 1 Domestic fabric performance recommendation

Element	2024 Outline Suggestion	Part L1A 2021 Limiting Values	Part L1A 2021 Notional Values	Updated Recommendation
External Wall	0.17 W/m²K	0.26 W/m²K	0.18 W/m²K	0.17 W/m²K
Exposed Floor	0.13 W/m²K	0.18 W/m²K	0.13 W/m²K	0.13 W/m²K
Roof	0.13 W/m²K	0.16 W/m²K	0.11 W/m²K	0.13 W/m²K
Glazing	1.10 W/m²K	1.60 W/m²K	1.20 W/m²K	1.10 W/m²K
Air Permeability	4 m³/h/m² @ 50Pa	8 m³/h/m² @ 50Pa	5 m³/h/m² @ 50Pa	4 m³/h/m² @ 50Pa

In addition to the fabric u-values, targets for thermal bridging will need to go well beyond the default psi-values.

Table 2 Non-domestic fabric performance recommendation

Element	2024 Outline Suggestion	Part L2A 2021 Limiting Values	Part L2A 2021 Notional Values	Updated Recommendation
External Wall	0.18 W/m²K	0.26 W/m²K	0.18 W/m²K	0.18 W/m²K
Exposed Floor	0.22 W/m²K	0.18 W/m²K	0.15 W/m²K	0.15 W/m²K
Roof	0.26 W/m²K	0.18 W/m²K	0.15 W/m²K	0.15 W/m²K
Glazing	1.60 W/m²K	2.20 W/m²K	1.60 W/m²K	1.60 W/m²K
Air Permeability	3 m³/h/m² @ 50Pa	10 m³/h/m² @ 50Pa	5 m³/h/m² @ 50Pa	3 m³/h/m² @ 50Pa

3.2.2 Improve Energy Efficiency

Building Services

Heating and Hot Water

The One Horton Heath development will be an all-electric site, with no gas heating and hot water systems. The preferred heating strategy for the site is through low-carbon heat pump technology, which aligns with the UKs net zero by 2050 target, as the grid continues to decarbonise and emissions associated with electricity continue to reduce.

For domestic scale heating and hot water, there are two preferred heat pump strategies: individual air source heat pumps and grouped ground source heat pumps. The building services which are selected for each parcel will be dependent on specific ground conditions and the expected heat demand in that area. The detailed technical addendum for each parcel of land will provide further information to which heat pump strategy has been proposed.

Ventilation

It is expected that all dwellings will be naturally ventilated through the use of openable windows which will reduce domestic-related energy demand across the site. Mechanical ventilation with heat recovery (MVHR) may be installed within apartments or flats to ensure adequate thermal comfort during summer months if window opening restrictions do not allow sufficient air flow to cool internal spaces. Where MVHR is proposed, a high efficiency fan power should be specified.

Non-residential proposals will likely consist of a combination of natural ventilation, mechanical extract and MVHR; where these systems are recommended, a high efficiency fan power should be specified.

Cooling

There are no requirements for active cooling within the residential elements of the proposed development.

For the non-residential spaces, in many instances, internal temperatures will be regulated sufficiently through the natural and mechanical ventilation systems in place. Wherever possible, passive design measures should be utilised to ensure thermal comfort is maintained within the proposed development before an active cooling system is recommended. Passive design measures include:

- External shading and planting
- Solar film (on glazing)
- Internal blinds
- Openable windows and cross ventilation
- Reducing glazing area on southern facades
- The use of night purge ventilation strategies to cool building spaces overnight

Lighting

All spaces will reduce lighting energy consumption through the use of high efficiency LED lighting, which uses less energy and lasts longer than more traditional methods of lighting.

A combination of manual switches and presence detection will be installed. Additional daylight dimming controls for some presence detection lighting rooms will take advantage of the natural daylight available in the spaces and further regulate lighting consumption.

3.2.3 Renewable Generation

A feasibility study was undertaken within the OPA for the OHH masterplan. Below are details for the main technologies which have been deemed potentially viable across the land parcels for this development. Additional detail regarding which strategies have been utilised within each land parcel can be found in the site-specific RM applications.

Low and Zero Carbon Energy

Heat Pump Technology

Whilst this has already been considered in detail within the 3.2.2, heat pump technology is a low-carbon heating and hot water technology which has been recommended for use across the masterplan. There are three main types of heat pumps: air, ground and water. For OHH, considerations have been made for both grouped ground source heat pumps and individual air source heat pumps. They require mains electricity to operate but typically generate around three units of heat for every unit of electricity that is consumed.

This type of system is suited to thermally efficient buildings, such as new build residential homes. Because the heat generated is at a lower temperature than that produced by a gas boiler, heat pumps typically require underfloor heating or oversized radiators to ensure the heat is distributed efficiently.

Solar Photovoltaics (PV)

Whilst attention often focuses upon energy efficiency and low carbon heating to drive down energy demand, the inclusion of roof mounted PV can contribute to improved performance against current Part L requirements. The incorporation of renewable generation, such as solar PV, helps to improve the primary energy factor of homes, and this technology is set to become mandatory under the FHS building regulations.

PV systems generate zero carbon electricity by converting the energy from sunlight into usable electricity via photovoltaic cells placed on the roof of buildings. They are well suited to dwellings with unobstructed south-east to south-west facing roof space. They can be integrated into the roof itself or tradition “bolt-on” panels.

Panels can vary in efficiency with the most efficient panel having an efficiency of 21%, while most perform at around 15-18%. PV panels have limited effects on the local environment and maintenance requirements are usually minimal. Excess power is exported to the grid or can be harnessed using battery storage.

It is therefore recommended that both residential and non-residential buildings consider the incorporation of roof-mounted solar PV, where it is feasible to do so. The feasibility, incorporation and generation potential of roof-mounted solar PV will vary across each parcel and house typology of the proposed development parcels. Refer to the individual RA

Outline calculations suggested that indicative house typologies such as Type A1 and Type C1 could house 9m^2 to 16m^2 PV, respectively, which has the capacity to generate 2-3kWp depending on the efficiency of the panel selected. See the individual RM applications for each land parcel for further information on the feasibility of PV inclusion at these sites.

3.3 Carbon Reduction

The outline Energy and Sustainability calculations for the One Horton Heath development estimated a 47% reduction in site-wide residential carbon emissions against the Part L 2013 notional baseline.

To show compliance with DM2 of the Eastleigh Local Plan, the residential elements of the One Horton Heath development will target a carbon reduction of 19% beyond the Part L 2021 building regulations. Site-specific energy calculations based on the schedules of accommodation and standard house typologies will be provided, where appropriate, within the individual RM applications. Please refer to these reports for further details.

4 Climate Change Resilience

4.1 Importance of designing for Climate Change

One of the main challenges facing new developments is the need to adapt to a changing climate. The UKCP18 climate projections show that over time, the UK will experience annual temperatures with significantly increased summer maximum temperatures, reduced summer rainfall, increased winter rainfall and an increase in extreme weather events.

The UK Climate Change Risk Assessment (updated in 2022) reiterates this, identifying key risks associated with the effects of climate change to the built environment. Adapting to this changing climate will impact the design, construction, location, cost and operation of all (new) buildings in the next few decades. One of the NPPF's core planning principles is to encourage development to consider climate change adaptation during the planning process. It is more cost beneficial to ensure buildings have installed adaptation measures now, rather than relying on future retrofit to increase climate resilience. Some of the top climate issues relating to the built environment are:

Ensuring Thermal Comfort

As climate change continues to increase temperatures during summer, the long-term risk of overheating in buildings is increasing. Considering the potential vulnerability to the occupants during design and construction mean that passive design measures can be integrated to ensure thermal comfort needs are met.

Reducing Water Use

August 2025 was the driest August since 2003, and as summer droughts continue to become more frequent across larger areas of the UK, ensuring water consumption efficiency for new developments has become a key element in holistic sustainability strategies. Section 5.1 discusses the approach to a reduced water demand for both residential and commercial developments, to ensure that it is in line with the councils 95l/p/day domestic consumption target.

Incorporating Sustainable Drainage

The long-term climate projections suggest that rainfall will increase during the winter months, therefore increasing the risk of both fluvial and pluvial flooding. It is important to incorporate sustainable drainage solutions within new developments, to mimic natural drainage patterns and reduce surface water runoff, by ensuring sufficient permeable paving and vegetation to intercept both rainfall and runoff. See Section 5.2 for more information.

Maintaining Vegetation and Landscape

With summers predicted to be drier and hotter, new developments should carefully consider the species of plants proposed for the site, integrating drought-tolerant species into the landscape and ecological plans. Ensuring that developments have sufficient green infrastructure located close-by to homes and other commercial buildings, such as schools or offices, can help to reduce urban heat island effects through the cooling of evapotranspiration. See Section 7 for the ecological and landscape strategies for the proposed development.

5 Water Conservation and Sustainable Drainage

5.1 Water Consumption

5.1.1 Demand Target

According to the Environment Agency, England needs to find almost 5 billion extra litres of water a day by 2050 to maintain water supplies, and of this, 2.6 billion litres a day is needed in the southeast alone[1]. Despite heavy rainfall events and wetter winters, this rain runs off into rivers (and out to sea), rather than infiltrating to restore groundwater supplies. As a result of this, this puts a huge strain on the region during summer months to supply potable water to all residential and commercial buildings.

Domestic

Eastleigh Borough Council (One Horton Heath Team) wish to deliver an exemplar scheme across One Horton Heath, with a water efficiency well below that prescribed by Building Regulations:

- In line with Condition 74, a domestic consumption target of **95 litres/person/day**.

Commercial

All non-residential developments should also ensure that they are conserving water use by having a low water consumption target:

- In line with Condition 33, where appropriate, water demand should follow credits towards achieving a **BREEAM 'Excellent'** score.

5.1.2 Low-Flow Fittings

To ensure the desired water consumptions are met, low flow rate sanitaryware will be installed. Low-flow fittings which will be in line with a 95l/p/d consumption are listed below:

Component	Maximum Flow Rate for Domestic Consumption
WC	4 l full flush/2.6 l half flush
Shower	6 l/min
Bath	156 l
Basin Taps (excluding kitchen/utility taps)	3 l/min
Kitchen/utility Taps	7 l/min
Dishwasher	0.75 l/place settings
Washing Machine	6.5 l/kg load
Total Water Consumption	91.1 litres/person/day

[1] Water scarcity in the South East | Southern Water (accessed October 2025)

The original low water consumption strategy completed by Hilson Moran (Sustainability and Energy Statement, September 2024) stated that to achieve a water usage target for 95 l/p/d, some form of water recycling would be required to meet these levels.

Whilst achieving the BREEAM water consumption credit, WAT01, is not a mandatory credit to obtain a BREEAM 'Excellent' overall score, considering the councils attitude and aspirations for One Horton Heath, it is likely this credit would be highly beneficial to contribute towards water reduction measures. It also helps to give non-residential developments direction to low-flow fittings which will help reduce water consumption, even if the credits are not sought after. A selection of water flow fittings, and the credits which they can achieve, are shown in the table below to help guide the selection of sanitaryware (based upon BREEAM New Construction 2018):

	Flow Rate for BREEAM Performance Level					
Component	**Base**	**1**	**2**	**3**	**4**	**5**
WCs (litres/flush)	6	4.5	4	3.75	3.5	3
Hand-wash basin taps (l/min)	10	8	6	5	4	3
Kitchen taps (l/min)	10	8	7	6	5	5
Greywater/rainwater system (% WC flush)	0%	0%	0%	25%	50%	75%
Commercial size dishwasher (l/rack)	8	7	6	5	4	3
Commercial size washing machine (l/kg load)	14	12	10	7.5	5	4.5

5.1.3 Water recycling

It is encouraged that water collection and recycling through the use of water butts for houses are provided to be for irrigation purposes. This will work towards meeting Eastleigh Borough Council's requirement ESD3, which requires that rainwater is used to irrigate private or communal gardens.

Eastleigh Borough Council supplementary policy requirement ESD 2 also requires that flatted new dwellings incorporate rainwater or greywater recycling systems for all WC flushing and other appropriate uses, unless green roofs are provided. The feasibility study was previously produced by Hilson Moran who found that the infrastructure requirements for this scale of water recycling would be cost prohibitive.

Further detail regarding water recycling will be provided within the parcel-specific RM applications, where necessary.

5.2 Sustainable Drainage Strategy

A Flood Risk Assessment & Drainage Strategy has been undertaken for the site, which provides details of any flood risks and sustainable drainage strategies to the development. A full range of SuDS techniques have been considered for use on the wider site. Ideally, discharge of surface water is infiltrated directly into the ground, or to a surface water body. Failing this, water should be channelled to a surface water sewer or another drainage system, before a final fallback to a combined sewer is considered.

At OPA, the Ground Investigation Report for the site concluded that "*Soakaway drainage is considered unsuitable for the site*". It was identified that there is a network of Ordinary Watercourses crossing the site, therefore it was proposed that surface water runoff is discharged to the onsite watercourses at, or below, greenfield runoff rates. Strategic SuDS features on the site should comprise above ground storage within the green corridors that follow the onsite watercourses.

Parcel-specific flood risk and drainage details can be found in the relevant technical RM reporting.

The outline FRA and Drainage Strategy recommended that a SuDS 'Management Train' approach is followed to address the quality and quantity of runoff from the individual parcels. This comprises of the following sections:

Prevention

The use of good site design strategies to prevent pollution, which may include reducing areas covered by impermanent paving and opting instead for soft landscape and planting wherever possible, designing to minimise the risk of blockages in drains or waterways, installation of rainwater collection within dwellings such as water butts and adding green roofs to public/commercial building, where appropriate, to act as a natural filtration system.

Source Control

This is defined as the control of runoff at or near its source, so that water does not immediately enter the drainage system, or is delayed and attenuated before it enters the drainage system. Strategies that could be used within the land parcels may include:

- **Pervious paving**: a surface material designed to allow water to pass through it, helping to manage stormwater and reduce surface runoff. Commonly made from porous concrete, permeable asphalt, or interlocking pavers, it supports natural infiltration into the ground, which helps recharge groundwater, reduce flooding, and filter pollutants.
- **Strategic planting and bioretention areas**: the use of plants for interception, storage and evapotranspiration of rainfall. They can be placed around downpipes to intercept roof runoff, particularly from larger commercial buildings where they can form part of the landscaping design. They can also be incorporated into traffic calming infrastructure such as build outs and into roadside planting and tree pits. See Section 7.1 for more information.

Site Control

Site control is the management of water from several sub-catchments within a development parcel. Through close consultation with the layout designers flow conveyance measures such as swales and filter trenches should be incorporated into the development parcels to provide additional attenuation, treatment, amenity and opportunities for habitat creation.

Refer to the parcel-specific RM applications for location-specific sustainable drainage strategies.

6 Health and Wellbeing

6.1 Light Pollution

All external lighting across the site will use energy-efficient fixtures and be designed to minimise light pollution during night-time hours. The lighting strategy will comply with the Institution of Lighting Professionals (ILP) *Guidance Notes for the Reduction of Obtrusive Light* (2020).

All street lighting will be controlled in accordance with the requirements set by Hampshire County Council's Specification for Street Lighting. Any other external lighting (except for safety and security lighting) will be fitted with timers so that it can be switched when not required, say between 23:00 and 07:00. Any safety or security lighting provided to be used between 23:00 and 07:00 will comply with the lower levels of lighting recommended during these hours in Table 4 of the ILP guidance notes.

A site-specific Lighting Impact Assessment will accompany each Reserved Matters application.

6.2 Air Pollution

The proposed development features all electric heating systems, meaning there will be no on-site combustion related to this, improving external local air quality. Poor air quality can also negatively affect health inside the home; building materials, finishes, and furnishings are major contributors to indoor air pollution, particularly through the release of formaldehyde and volatile organic compounds (VOCs). These materials can emit a wide range of VOCs, especially during the first two years after construction. To reduce indoor air pollution, it is important to choose materials, finishes, and furnishings that contain low levels of pollutants.

Where required, a site-specific Air Quality Statement will accompany the Reserved Matters application.

6.3 Noise Pollution

The placement and orientation of buildings within the masterplan will be guided by the findings of the noise impact assessment, helping to minimise the effects of external noise on occupants and reduce potential issues. It was highlighted within the outline application that the provisions of ASHP in dwellings may significantly increase the house levels on-site. A site-specific Noise Assessment will accompany each Reserved Matters application.

The development will aim to achieve a rating noise level difference no greater than the background noise level as measured in the locality of the nearest or most exposed noise-sensitive area from all fixed installations or sources of an industrial nature in commercial premises within the Proposed Development.

6.4 Thermal Comfort

With increasing summer temperatures, there is an elevated risk of overheating in buildings, which could adversely affect the users of this proposed development. A thermal comfort assessment, in line with Part O of the Building Regulations, will be undertaken to ensure that the dwellings are resilient to the future impacts of climate change.

Several factors can contribute to overheating in dwellings, such as:

- High external summer temperatures;
- Solar gains through windows;
- Lack of openings / inadequate ventilation;
- Improved building fabric with better insulation U-values which result in lower heat losses;

- Oversized / unrequired radiators or underfloor heating systems; and
- Insufficient temperature controls or timers for communal heating systems.

Results to these assessments can be found within the parcel-specific technical appendices, with any recommended mitigation measures where necessary. Some overarching strategies to reduce overheating which will be incorporated within the proposal include:

Openable Windows

Most proposed residential buildings are proposed to have openable windows; it is expected that residents will have control over the window operation and will be able to open window for ventilation in rooms to suit their thermal comfort level. Ensuring that windows are placed on opposite facades, where possible, will help with cross ventilation to sure a good flow of air. This may be limited in any locations where there are security concerns, noise, pollution, or adjacent heat sources.

Quantity of Glazing

The quantity and orientation of glazing—particularly on east, south, and west-facing walls—can significantly influence solar heat gain. While passive solar gain can be advantageous during colder months, it's important to explore appropriate strategies to manage and control it effectively throughout the year.

Shading

External shading through the strategic placement of trees, shutters or balconies within apartment blocks can help to reduce solar gain. While internal shading devices such as blinds or curtains cannot be included within thermal modelling assessments under Part O criteria, they still act as an effective way to reduce the solar gains entering a room.

Thermal Mass

Incorporating materials with high thermal mass can help regulate indoor temperatures by absorbing heat during the day and releasing it at night, especially when paired with effective night-time ventilation.

7 Nature and Biodiversity

7.1 Green Infrastructure

Green Infrastructure (GI) offers multiple benefits and is recognised in the UK 25 Year Environment Plan. The use of green spaces, urban parks and street trees as part of the green infrastructure strategy all help to reduce the risk of heat stress and flooding, while also improving the health and wellbeing of occupants and biodiversity across site.

Strategic Planting

Trees and shrubs reduce heat loads in building by providing shading; plants absorb and reflect sunlight, reducing the solar radiation absorbed by the building surfaces. Additionally, vegetation lowers the ambient air temperature through evapotranspiration, which in turn effects the heat transfer from outside to building envelope and interior, providing further cooling for the building.

Street trees are a natural drainage feature due to canopy interception, water drawn from soil and additional infiltration by roots. Utilising street trees as part of a sustainable urban drainage system (SuDS) or management train can further increase the effectiveness of stormwater attenuation. Well managed vegetation can also aid in the reduction of wildfire severity/spread, with the use of ‘fire resistant’ plants which can be used as a buffer between unmaintained land prone to wildfire and occupied areas.

The development will incorporate strategic planting and vegetation within the design, including measures such as street trees, to help mitigate risks such as overheating and flooding. Any site-specific measures will be detailed within the relevant Ecology or Landscape RM reporting.

7.2 Ecology

A diverse suite of ecological mitigation and enhancement measures will be delivered as part of the Proposed Development, contributing to improved ecological functionality of habitats across the wider local area. Measures were summarised within the outline EIA, including measures for conservation of habitats both during construction and operation.

Within the outline report, it was discussed that the habitats to be lost as a result of construction are largely of low ecological value and the loss of higher value habitat has been minimised where impacts are unavoidable. Particular attention was given to any activities with the potential to affect the watercourses and water quality for designated sites for nature. Suitable ecological buffers have been delivered throughout the masterplan, and these measures are designed to absorb the impact of the presence of the additional residents to protect the valuable habitats on, and adjacent to the site.

Refer to site-specific ecology reporting for the RM submissions for further detail.

Biodiversity Net Gain

The national BNG requirement was enacted for applications submitted from February 2024, however the Outline Planning Application predates this (2020) so there is no statutory requirement for 10% BNG to be delivered. The adopted policies of the Eastleigh Borough Local Plan (2016-2036) however require new development to achieve a net gain in biodiversity, but not necessarily a 10%. One Horton Heath will deliver the benefits to biodiversity on site through the embedded mitigation and enhancement measures and the protection and creation of high-quality habitats on the large areas of Green Infrastructure. A Biodiversity Net Gain Assessment will be provided for each RM application.

8 Materials, Waste and Recycling

8.1 Sustainable Materials

Responsible Sourcing

The BRE ‘Green Guide to Specification’ should be used when selecting construction materials, to encourage the use of materials which have been produced with minimal impact on the environment in line with good practice methodology. The Guide promotes the use of sustainable materials with low embodied energy, low ecotoxicity and a long lifespan.

To further enhance the development a number of additional measures will be considered during the design development to minimise pollution, including:

- The use of key internal finishes and fittings which comply with best practice emissions levels of Volatile Organic Compounds (VOCs) and other substances; and
- Specification of low Global Warming Potential (GWP) and zero Ozone Depleting Potential (ODP) insulation materials.
- All timber used in construction, including temporary site timber, should ideally be sourced from legally harvested and responsibly traded sources.

8.2 Embodied Carbon

As efforts accelerate to reduce carbon across both the UK and the wider world to meet climate change and net-zero commitments, the building and construction industry is feeling the pressure to rapidly reduce its impact. Embodied carbon refers to the emissions associated with a building's materials. This includes the carbon emitted in producing a building's materials, their transport, installation on site, and disposal at the end of life.

Historically, there has been little regulation with regards to embodied carbon. In the past, operational emissions have far outweighed the embodied emissions. However, as the efficiency of our buildings improve and carbon from energy sources decrease, considerations of embodied carbon impacts related to the product and construction stages of a building becomes increasingly important and can account for more than half of a building’s whole life carbon (WLC), as seen in the figure below.

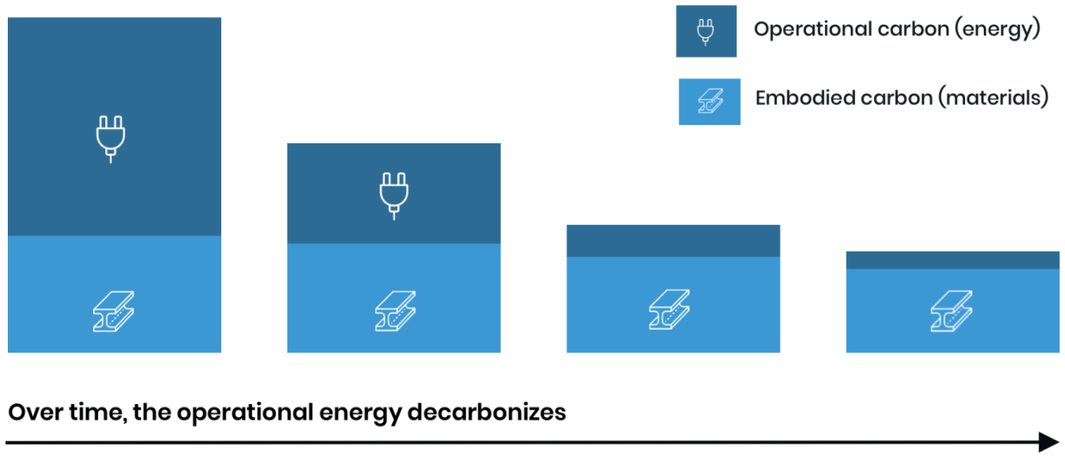


Figure 2 Operational carbon emissions decreasing over time, and embodied carbon making up a larger portion of the total carbon (Image: LCA OneClick)

All building elements can be considered when looking for ways to reduce embodied carbon within a new development, including the substructure, superstructure, facades, building services, internal finishes, and external works.

8.3 Circular Economy Practises

A circular economy (CE) approach to building design encourages the reuse, recovery, refurbishment, remanufacturing and recycling of materials and existing buildings over the use of new material and new construction, as well as promoting the use of renewable resources and sustainable design. Practises of a circular economy design can help to tackle a variety of global challenges including climate change, waste, pollution and biodiversity loss.

A circular economy is based on the following principles, all driven by design, and supporting the application of a waste hierarchy:

1. Building in Layers
2. Designing out Waste
3. Designing for Longevity
4. Designing for Adaptability or Flexibility
5. Designing for Disassembly
6. Using Systems, Elements or Materials that can be Reused or Recycled.

The construction and operation of the built environment consume 60% of all materials in the UK. Within the current building and resource environment, these minerals and metals are taken from the Earth and eventually thrown away as waste at the end of the products' life. This reflects a linear economy, whereas a circular economy is 'one where materials are retained in use at their highest value for as long as possible and are then reused or recycled, leaving a minimum of residual waste', as shown in the figure on the right.

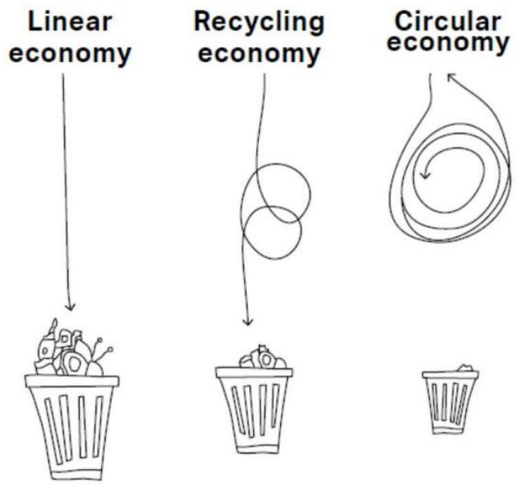


Figure 3 A circular economy (Image: Circular Flanders)

Throughout the design process, the team aims to maximise material efficiency to minimise construction waste. This includes using standardised materials and designs wherever possible. A consistent set of apartment and house types has been developed for the masterplan, providing an opportunity to optimise resource use and reduce waste through repetition and streamlined construction methods.

8.4 Managing Waste

8.4.1 Construction Waste

Throughout construction, the appointed contractor should make every effort to minimise waste and, where possible, divert waste from landfills through reuse or recycling.

A Construction Environmental Management Plan (CEMP) will be developed to ensure the use of measures to minimise waste during this stage. Measures to ensure waste reduction, reuse and recycling include the avoidance of over-ordering, supervision of deliveries, use of secure materials storage facilities and reuse of materials onsite where feasible.

8.4.2 Operational Waste

In accordance with the principles of the waste hierarchy, shown in the image on the right, all developments will make provision for the storage of both non-recyclable waste and recyclable waste.

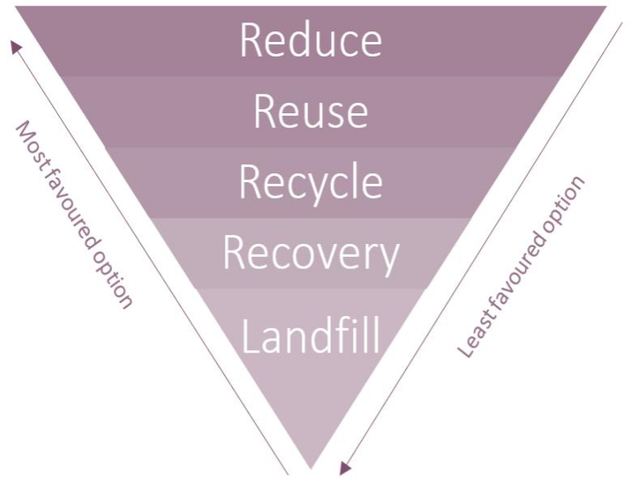


Figure 4 Waste hierarchy

Domestic

As detailed within the outline application, the wider proposal for OHH suggests that 41 tonnes of waste will be generated per week once all dwellings are constructed and occupied. Eastleigh Borough Council provides collections for 5 different waste streams:

- Mixed recyclables
- Glass
- Food waste
- General waste
- Garden waste

Space provisions should be made for the separation and storage of each waste stream. Further detail regarding domestic waste collection and storage areas is provided within the site-specific RM applications.

Non-Domestic

A similar approach will be adopted for non-residential buildings to ensure provision is made for dedicated storage facilities so that operational-related recyclable waste streams are diverted from landfill or incineration. Spaces will be clearly labelled to assist with segregation of recyclable waste from general waste, and of the appropriate capacity for the building type, size and predicted volumes of waste that will arise at a daily/weekly basis.

Further detail for non-domestic waste storage location, size and collection is provided within the appropriate site-specific RM reports.

9 Sustainable Transportation

9.1 Travel

A Transport Assessment and Framework Travel Plan was prepared in support of the proposed developments at OHH at Outline Planning Application stage, summarising existing conditions in the vicinity of the site, the accessibility of the site relative to local facilities and services, and outlines the development proposal for the site.

A summary of the site-wide travel plan has been provided below. Site-specific Transport Assessments and Travel Plans will be submitted for each RM parcel, so please refer to these for parcel-specific details.

9.1.1 Pedestrian and Cyclist Provisions

Provisions have been made across the masterplan to promote sustainable methods of transport including waling and cycling. There are several existing public right of ways through the site which will connect users to wider pedestrian/cycling infrastructure. Footpaths and cycleways will be provided along main roadways across the masterplan, to provide attractive active travel corridors for residents.

Further detail on pedestrian and cyclist infrastructure can be found within the parcel-specific RM applications.

9.1.2 Public Transport

The main travel corridor through One Horon Heath has been designed to accommodate buses. At OPA, the development proposed it was likely to secure a bus route through the proposed development with support of a financial contribution to encourage bus travel which is likely to involve re-routing of existing services, such as the Bluestar 3. The development would also provide attractive bus stops which include seating and shelter to encourage users to travel via bus.

Further detail on public transport infrastructure can be found within the parcel-specific RM applications.

9.1.3 Electric Vehicle Provisions

The masterplan will include the provision of both active and passive infrastructure:

- Active will be located on-plot for private driveways or garages, with at least one charging point (in line with Building Regulations Part P). All resident parking will be based upon the provision of 7.2kW ‘fast’ charging points.
- Passive infrastructure will be located in off-street unallocated parking, such as spaces within designated parking areas/courts. These will supply 7.2W fast charger and active charging points, where deemed necessary.

Parking allocated to retail areas will include rapid charging facilities and parking spaces provided to commercial premises will include fast charging for employees and rapid charging for operational needs.

Further detail on EV infrastructure can be found within the parcel-specific RM applications.

Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

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