RIDGE

SYMMETRY PARK BICESTER
PHASE 3, UNITS E & F

SUSTAINABILITY STATEMENT

November 2024

5026311 SYMMETRY PARK, BICESTER PHASE 3, UNITS E & F

SUSTAINABILITY STATEMENT

November 2024

Prepared for

Tritax Big Box Developments.

Prepared by

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CONTENTS

1. INTRODUCTION

Ridge & Partners LLP have been appointed to prepare a Sustainability Statement on behalf of Tritax Big Box Developments (TBBD) in support of the Planning Application for the construction of 2no. B8 units, together with associated access, vehicle parking, landscaping and all other ancillary works on land known as Symmetry Park Bicester Phase 3.

The proposed development of the site consists of the construction of circa 25,856sqm (GEA) of B8 warehouse with ancillary office floorspace across two units with all ancillary works. This statement has been prepared with national policies and local objectives in mind, specifically addressing the intentions of the Cherwell Local Plan 2011 - 2031 (Adopted July 2015), especially **Policy ESD1 – Mitigating and Adapting to Climate change** This report demonstrates how the proposed development's current design aligns with this and their sustainability conscious goals.

2. LOCAL PLANNING CONTEXT

The Cherwell Local Plan 2011 - 2031 includes policies in relation to growth, housing costs, transport, environmental quality and protection. It sets out the Council's vision to optimise sustainable growth by creating a place where modern life and business develops in harmony with the environment, complimenting, preserving and enhancing the area's local character. Set out in the table below is the Local Plan Policy requirements.

Policy Ref	Policy Objective
ESD 1: Mitigating and adapting to climate change	• Mitigate the impact of developments within the district on climate change. • Design developments to reduce carbon emissions and use resources more efficiently. • Promote the use of decentralised and renewable or low carbon energy.
ESD 2: Energy hierarchy and allowable solutions	• Promote an energy hierarchy. • Reduce energy use through sustainable design and construction measures. • Efficient and decentralised energy supply. • Make use of renewable energy and allowable solutions.
ESD 3: Sustainable Construction	• Achieve through a combination of fabric energy efficiency, carbon compliance and allowable solutions. • All new non-residential development expected to achieve BREEAM Very Good certification. • The demonstration of the achievement of this standard should be set out in the energy strategy. • All development proposals will be encouraged to reflect high quality design and high environmental standards demonstrating sustainable construction.

Policy Ref	Policy Objective
Policy ESD 4 – Decentralised Energy Systems	• The use of decentralised energy systems providing heating or heating and power will be encouraged in all new developments. • A feasibility assessment for DH/CHP including consideration of biomass fuelled CHP will be required for all applications for non-domestic developments above 1000m2 floorspace.
ESD 5: Renewable Energy	• Planning applications involving renewable energy development will be encouraged. • Feasibility assessment for the potential for significant on-site renewable energy provision is required for applications for non-domestic development above 1000m2 floorspace.
ESD 6: Sustainable Flood Risk Management	• 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 risk of flooding. • Opportunities sought to restore natural river flows and floodplains. • Buildings over or culverting of watercourses should be avoided and the removal of existing culverts will be encouraged.
ESD 7: Sustainable Drainage Systems	• All developments will be required to use sustainable drainage systems for the management of surface water run-off.
ESD 8: Water Resources	• The Council will seek to maintain water quality and ensure adequate water resources and promote sustainable water use
ESD 9: Protection and enhancement of biodiversity and the natural environment	• A net gain in biodiversity will be sought in proposals by protecting, managing, enhancing and extending existing resources and by creating new resources.

2.1. Sustainable Development Across the TBBD Estate

TBBD views sustainability through a holistic lens, creating buildings that are energy efficient and which have a positive impact on the local and wider environment. They believe that the approach to sustainable development must be tailored for every project to meet the needs of the client and the requirements of the project stakeholders. TBBD is committed to being at the forefront of sustainability best practice and continually reviews policies relating to BREEAM, EPC ratings, low energy use and carbon reduction in the construction and operation of new buildings.

In April 2019 TBBD recognised that the low carbon agenda needed detailed consideration in respect of their new developments and a commitment was made to align with the UK Green Building Council (UKGBC) definition of 'zero carbon'. Whereas previous policies focused only on operational energy and modelled performance in new buildings, the UKGBC definition expanded the scope to in-use performance and to encompass the whole life carbon impacts of both new and existing buildings.

TBBD is a Gold Leaf Member of UKGBC and is committed to delivering all new developments to meet the best practice principles established by the UKGBC in their previous Net Zero Carbon in Construction definition and framework. In November 2023, the UKGBC advised that their framework would be superseded by the new UK Net Zero Carbon Buildings Standard (UK NZCB), of which they were a contributing party. The standard was released in pilot form in September 2024, with a 12-month period of feedback from industry expected before the 1st full version is to be released. In its current pilot form, the standard cannot be applied to speculative logistics schemes, and it cannot be complied with until 1 year into full occupation (though further updates in these areas are alluded to). Given these limitations, it is instead intended that the scheme will be designed and constructed in accordance with the best practice principles developed by UKGBC, to deliver a scheme that follows the UKGBC Net Zero Carbon in Construction principles.

TBBD also recognises the importance of net zero carbon during operational use of buildings. To tackle operational emissions TBBD are working with end users to drive down energy demands and providing low carbon energy supply through on-site renewables, battery storage and the utilisation of low carbon energy suppliers

3. SUSTAINABILITY STATEMENT

This Statement seeks to identify how current design proposals for the site will look to address key issues of sustainable development as outlined in the Cherwell Local Plan 2011 – 2031. This will include opportunities to mitigate and adapt to climate change, optimising energy, water and resource efficiency, minimising pollution, and protecting and enhancing ecology, landscapes and habitats.

The following section is structured to address core sustainable development themes within the Local Plan, including:

- ESD1 Mitigating and Adapting to Climate Change
- ESD2 Energy Hierarchy and Allowable Solutions
- ESD3 Sustainable Construction
- ESD4 Decentralised Energy Systems
- ESD5 Renewable Energy
- ESD6 Sustainable Flood Risk Management
- ESD7 Sustainable Drainage Systems (SuDS)
- ESD8 Water resources
- ESD10 Protection and Enhancement of Biodiversity and the Natural Environment

3.1. ESD 1: Mitigating and Adapting to Climate Change

Flexibility is inherent in the design of the development's spaces to provide maximum flexibility for all potential occupiers.

The development will also be designed to adapt to the climate changes expected in the future. This will minimise the need for carrying out works to adapt the building in future (and therefore reducing wastage). Climate change adaptation measures include:

- The buildings will be designed to limit thermal overheating under climate change conditions by sizing the air source heat pumps to cope with predicted increases in temperature based on TRYs future climate change scenarios.
- The building fabric has been reviewed against the effects of Climate Change (Wst 05 credit targeted for BREEAM V6.1NC) and found to be resilient and able to withstand with predicted increases in flood level, solar radiation, wind gusting, rainfall intensity and snow loading.
- Implementation of measures recommended by the drainage consultant will ensure that the site is not at significant risk of flooding. Surface water drainage strategy accounts for climate change
- Measures to reduce water consumption by 40% over notional baseline to account for decreased amounts of water available in the future (for details see Section 3.8).

3.2. ESD 2: Energy Hierarchy and Allowable Solutions

The project team has undertaken a Low and Zero Carbon (LZC) Feasibility Study and Passive Design Assessment (PDA) (CPW, October 2024), to inform the emerging servicing strategy for the scheme. Through the production of these two reports, they have demonstrated that an energy hierarchy will be promoted, which follows the structure:

Lean - Use advanced building modelling and passive construction techniques as far as is cost effective.
Mean - Incorporate high efficiency systems and effective controls throughout the design.
Green - Incorporate renewable energy sources where necessary and economically viable to achieve targets or provide desirable benefits.

The PDA report considers various passive design methods that could be incorporated into the building design such as solar shading and the installation of window glazing with a G-Value of no greater than 0.37.

The PDA report also demonstrates that high efficiency systems will be incorporated through the design through an effective ventilation system strategy. The LZC report also considered various technologies that could be incorporated into the building design to improve building efficiency, such as installing Air source heat pumps for heating the office space.

The LZC Report considered various potential green energy sources comparing their energy efficiency against their cost effectiveness. It recommended the installation of Solar Photovoltaic (PV) Panels on the warehouse roof, which could lead to an energy saving of 293,107kWhr/yr for Unit E and 225,406kWhr/yr for Unit F.

This is further detailed in Section 4. Energy Strategy.

3.3. ESD 3: Sustainable Construction

A Sustainable Procurement Plan (SPP) is in place to guide specification towards sustainable construction products. This document has been produced by TBBD to guide and unify and embed Sustainable procurement across all of its developments. The plan is used by the design team to inform the planning proposals and is embedded in the Contractors requirements to ensure implementation. It is also audited as part of the BREEAM targeted credits.

All timber will be responsibly sourced. In addition, contractors shall also source other materials responsibly (i.e. from suppliers with BES6001/ ISO14001 / CARES certification) and from local and recycled sources wherever possible to meet BREEAM Mat 04 targets.

The development will be designed to be durable and resilient. This will help to reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape. Additional protection has been added to areas of the building envelope that could be subject to vehicle collision and walls within the units subject to high pedestrian movements or internal vehicles or trolleys have additional protection added during end user fit out. This is monitored and audited through the BREEAM credit Mat 05.

A Waste Management Strategy has been developed by Savills for the planning application. Waste will be separated by the operator into recyclable waste streams for collection by a local licensed company. The development will have a dedicated waste storage area which includes sufficient provision for storage of recyclable waste streams. This area will be accessible to both building occupants and waste collection vehicles.

3.4. ESD 4: Decentralised Energy Systems

In addition to incorporating feasible LZC technologies into the development, the current servicing strategy for all TBBD developments seeks to use direct electrical heating systems to meet heating and hot water demands. The use of electrical systems avoids the release of on-site combustion emissions into the local environment, enabling energy demand to be met 'cleanly' within a local context and enables the development to optimise carbon minimisation through the continuing decarbonisation of the National Grid. This provides a major step change towards ensuring TBBD developments are able to mitigate the impacts of climate change.

3.5. ESD 5: Renewable Energy

The Low Zero Carbon Technologies Report considered factors such as life cycle costs, payback periods, operational carbon savings as well as predicted energy profiles and site constraints, the most technically and practically feasible technologies for the site are roof mounted photovoltaic panel installations for each of the units and air source heat pumps (ASHPs).

In a commitment to reduce operational carbon emissions and to ensure compliance with the new stringent Part L 2021 requirements, the proposed design allows for an area of roof-mounted PV to be provided across each of the units. The area of PV provided will be defined based on the energy consumption allowance, it is anticipated the PV energy allowance will be 370 kWp for Unit E and 290 kWp for Unit F. Planning permission is being sought for 100% coverage of the useable roof space, allowing occupiers to increase coverage should they have a greater energy requirement.

3.6. ESD 6: Sustainable Flood Risk Management

Damage from flooding causes significant environmental damage with loss or damage to habitat and health. The Flood Risk Assessment was produced by Hydrock (October 2024), The site and surrounding area is not located within the floodplain therefore a permanently safe and dry access can be maintained. Implementation of measures recommended in the Flood Risk Assessment will ensure that the site is not at significant risk of flooding, e.g. raising the finished floor levels and some external areas of the site to form a development plateau; Unit F (south) would be raised 655mm and Unit E (north) would be raised 661mm.

Further features proposed to the scheme include

- Bunds ranging from 3m to 1.5m high along the south, west, east and north side of the site;
- A 1.2m wide by 1m high rectangular culvert to carry the Ordinary Watercourse beneath the proposed access road. This has been sized to accommodate the design event flow (1% AEP +15%CC); and
- Lowering ground levels to the north of the bund by 950mm, creating a 1,217 m3 mitigation basin connected to the watercourse via a swale. This has been incorporated into the scheme to ensure there are no impacts to flood risk offsite.

3.7. ESD 7: Sustainable Drainage Systems (SuDS)

This development will reduce the residual area of soft landscaping that is able to soak up water during a storm. Systems can therefore be designed to hold the water onsite and safely release it into the surrounding watercourses without causing flooding offsite.

The Drainage Strategy outlines how this development incorporates prevention by using underground storage tanks with integrated flow control and associated attenuation holding ponds & swales. These systems will capture the rainwater run-off and hold it on site, limiting the rate of discharge to local watercourses to avoid flooding adjacent land or properties.

3.8. ESD 8: Water Resources

The development will target a minimum 40% improvement in water consumption over the notional baseline, as prescribed by BRE which is based on industry research and is included as part of the BREEAM V6.1 New Construction Methodology. To achieve this, low flush volume WCs and low flow rate taps / showers will be specified as part of the fitted-out scheme. Pulsed output water meters will also be installed to each building to enable occupiers to monitor their water consumption. By being able to easily monitor water usage, end users can target improvements and thereby are encouraged to reduce usage.

To reduce water wastage, major leak detection systems will be installed, and flow control devices will prevent minor leaks in WC areas and the development will minimise unregulated water consumption by specifying planting which does not rely on a permanent, mains fed irrigation system.

3.9. ESD 9: Protection and Enhancement of Biodiversity and the Natural Environment

EDP have produced an Ecological Baseline Report which identifies that the majority of the Site comprises of moderate quality neutral grassland with some modified grassland of poor to good quality. The site also had farm buildings and a small area of hardstanding present that was considered of negligible importance.

However, there are also some lowland meadows; tall forbs; poor quality broadleaved woodland; and species rich hedgerows that are of local ecological importance.

Mitigation measures have been proposed that firstly aims to avoid any ecological impact, and if that is not possible, then to minimise the likely impacts, to comply with relevant planning policy and avoid any infringement of relevant legislation. Tree protection measures will be applied to the retained woodland, trees, and hedgerows. Additional physical protection for wider habitats such as grasslands and water courses, Ecological Protection Zones will be identified and construction activities around these areas will be carefully controlled. General environmental protection measures, including dust and pollutants control will be detailed in the Construction Environmental Management Plan.

The following new habitats will be made:

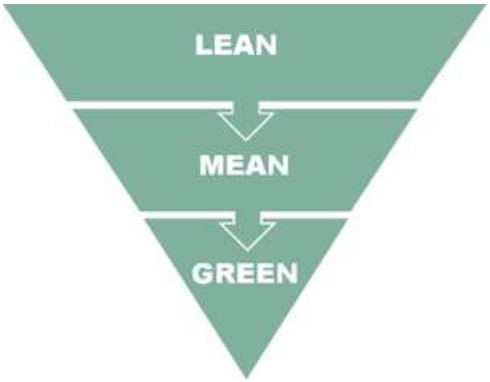
- New native tree and hedgerow planting
- A water attenuation feature planted with a wetland meadow seed mix and marginal planting mix
- Areas of higher value species-rich meadow grassland
- Areas of harder wearing amenity grassland
- Extensive areas of scrub and woodland on the boundary bunding.

In addition to the retention of the existing off-site lowland meadow, mature trees, hedgerows and grasslands; new planting of greenspace areas will enhance the connectivity between existing important habitats thereby strengthening the integrity of the local ecological network. The establishment, maintenance and long-term management of the retained and created habitats will be delivered via a Landscape and Ecological Management Plan, which can be secured by planning condition. TBBD will ensure that the development will meet the statutory requirement of 10% Biodiversity Net Gain, as per the Ecological Appraisal produced by EDP (October 2024).

4. ENERGY STRATEGY

Taking action on climate change by reducing energy consumption and its associated carbon emissions is the subject of numerous national, regional and local policies. As the UK Government aspires to achieve net zero carbon buildings, a step change in the approach to energy management is required of all new developments with opportunities to implement energy efficiency initiatives realised, where technically and financially viable.

The strategy for reducing energy consumption and carbon emissions within the development will follow the energy hierarchy below, which aligns with policy **ESD 2: Energy Hierarchy and Allowable Solutions.**



Lean - Use advanced building modelling and passive construction techniques as far as is cost effective.

Mean - Incorporate high efficiency systems and effective controls throughout the design.

Green - Incorporate renewable energy sources where necessary and economically viable to achieve targets or provide desirable benefits.

4.1.1 Being Lean – Minimising Energy Use

Reducing the energy demand of the individual buildings is the first stage of the energy hierarchy and requires consideration of both architectural and building fabric measures (passive design) and energy efficient services (active design). Passive measures included within the design of the development to reduce energy use and the associated CO_2 emissions include:

- Energy efficient building fabric
- Low air permeability
- Optimising solar gain and natural daylighting

4.1.2 Energy Efficient Building Fabric

Limiting heat losses across the entire building envelope will maximise energy efficiency of the development over its whole life. To achieve this, the fabric thermal U-Value (which is a measure of how thermally efficient the element is) will be in line with the new and enhanced Part L 2021 requirements.

4.1.3 Low Air Permeability

A significant percentage of heat loss from buildings is due to air infiltration associated with poor air tightness. By improving on the air tightness of the building it is possible to reduce infiltration rates and thus reduce the heat losses, energy use and the associated CO_2 emissions. Under the new 2021 Part L Building Regulations a maximum air permeability of 8m³/hr/m² @ 50Pa is set. The development will be constructed to improved building air tightness criteria significantly beyond the level required to comply with the Building Regulations, with an air permeability of 3m³/hr/m² @ 50Pa targeted. In order for this to be realised, considered detailing and specification of the building envelope components will be required along with controlled construction practices.

4.1.4 Optimising Solar Gain and Natural Daylighting

The glazed proportion of the building façades and the location of glazing is designed to maximise the use of natural daylight to offset demand for artificial lighting. At the same time as being designed to maximise passive solar gains, the façade will be designed to minimise thermal losses through the use of high-performance glazing, optimising the glazed-to-opaque proportion of the façade and incorporating enhanced insulation levels above the minimum set down by Building Regulations. This will ensure that there is a balance between providing high levels of daylighting negating the need for artificial lighting, whilst controlling the amount of heat ingress from direct sunshine which would require more cooling. This strategy will minimise the carbon emissions.

The design seeks to ensure that at least 10% of the warehouse roof includes rooflights to maximise the use of natural daylighting and reduce artificial lighting loads.

4.2 Being Mean – Energy Efficient Building Services

Ensuring that building services efficiently use energy and can be intelligently controlled to adjust to reflect changes to internal conditions, use or occupancy can generate real energy savings. To understand how the building performs, a comprehensive metering strategy will be developed for the building, identifying where major opportunities to reduce energy consumption can be realised. This will be in line with Building

Regulations and BREEAM (Building research Establishment Assessment Methodology) requirements, enabling at least 90% of the annual energy consumption of each fuel type to be monitored, by end use category. These meters will have pulsed or other open protocol communication outputs to enable connection to an appropriate energy monitoring system.

In addition to this, it is envisaged that the following building servicing solutions will be integrated into the servicing strategy for each unit:

- Internal lighting within the office areas will incorporate energy efficient LED lighting where practicable. Automatic presence detection will be included in appropriate areas of the building, ensuring that lights are automatically switched off during periods of non-occupancy.
- External lighting will be designed to incorporate energy efficient luminaires and an automatic lighting control system utilising daylight sensors and time clock control to ensure energy-efficient operation of the lighting.
- The control of heating plant will be optimised, and weather compensated to ensure plant operates as close to demand as possible and not at full capacity.
- Variable speed drives will be installed on circulation pumps and ventilation fans to allow the speed of the respective motors to be amended by the automatic controls to suit changing load of the building. This will ensure energy usage matches demand requirements thus reducing the carbon emissions to a minimum based on end user occupation.
- The ventilation systems installed within the development will incorporate heat recovery within the air handling plant to recover heat from the air exhausted to heat the incoming fresh air and therefore reduce energy usage. The air handling plant will have a low specific fan power to minimise the energy used by the fans.

4.3 Being Green - Low and Zero Carbon Technologies

To support the Planning Application and evaluate the potential to integrate renewable and low carbon technologies into the design of the development, the project team has undertaken a Low and Zero Carbon (LZC) Feasibility Study to inform the emerging servicing strategy for the scheme (CPW, September 2024). Considering factors such as life cycle costs, payback periods, operational carbon savings as well as predicted energy profiles and site constraints, the most technically and practically feasible technologies for the site are roof mounted photovoltaic panel installations for each of the units and air source heat pumps (ASHPs).

In a commitment to reduce operational carbon emissions and to ensure compliance with the new stringent Part L 2021 requirements, the proposed design allows for an area of roof-mounted PV to be provided across each of the three units. The area of PV provided will be defined based on the energy consumption allowance, it is anticipated the PV energy allowance will be 370 kWp for Unit E and 290 kWp for Unit F.
A copy of the LZC feasibility report is contained in Appendix B.

In addition to incorporating feasible LZC technologies into the development, the current servicing strategy for all TBBD developments seeks to use direct electrical heating systems to meet heating and hot water demands. The use of electrical systems avoids the release of on-site combustion emissions into the local environment, enabling energy demand to be met 'cleanly' within a local context and enables the development to optimise carbon minimisation through the continuing decarbonisation of the National Grid. This provides a major step change towards ensuring TBBD developments are able to mitigate the impacts of climate change.

4.4 Predicting Operational Energy Use

Initial energy modelling of Units E & F has been undertaken to evaluate the potential of the building design and servicing strategy to achieve Building Regulations 2021 Part L requirements. Using IES Virtual Environment (7.0.15) an initial operational energy assessment has been completed, based on the preferred servicing strategy for the building, which includes the integration of direct electric heating and hot water systems. Through the use of roof-mounted PV, the units achieve an indicative reduction in carbon emissions of -117.3% for Unit E and -113.8% for Unit F (BER) compared to the notional building (TER).

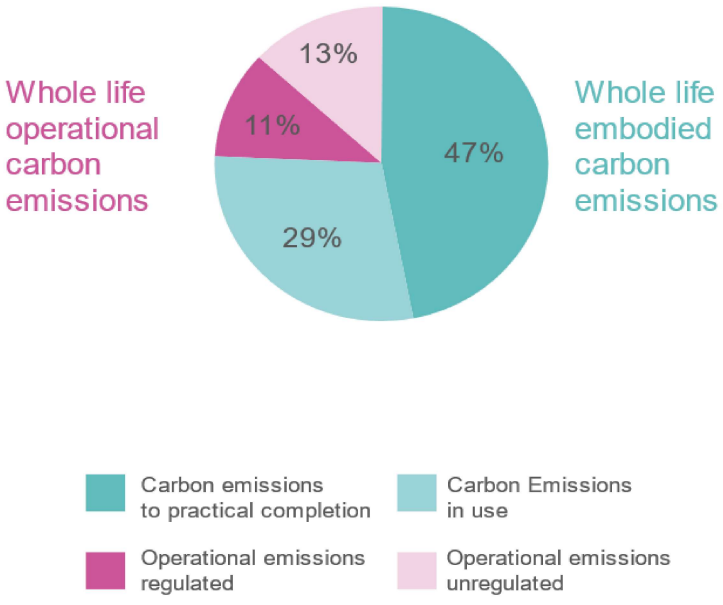
This demonstrates that the conditioned areas of the development will significantly exceed the minimum 10% reduction in carbon emissions as required under policy **ESD1 Mitigating and Adapting to Climate change.**

4.5 Embodied Carbon and Climate Change Resilience

While operational carbon occurs gradually over the life of a building, embodied carbon emissions occur predominantly in the building materials and their construction, and therefore are emitted immediately. Once the building is constructed, they cannot be reduced further, and therefore reduction of embodied carbon emissions plays an essential part in achieving the net zero targets.

Whole life embodied carbon and construction related emissions are generated by equipment used during construction, material extraction, transportation, manufacturing, installation and also dismantling and disposal. This can be modelled using sophisticated software to help identify where the carbon sits to enable options to be implemented to minimise as far as possible the embodied carbon emissions of the development.

Below is an example of carbon emissions for a typical warehouse showing how important the embodied carbon emissions are.



Examples of total whole life carbon emissions breakdown for new buildings © RICS; Sturgis Carbon Profiling

The above is based on a typical warehouse unit with office space (15% by area); London perimeter, UK

At Group level, TBBD has in place a commitment that all new commercial buildings delivered by TBBD Symmetry will be designed and delivered in accordance with Net Zero Carbon in Construction principles and, as the detailed design of the scheme emerges, a Whole Life Cycle assessment (LCA) exercise will be

completed to determine the embodied carbon content ($kgCO_2eq$) of the individual units. This model will be refined further throughout the design and construction phases to inform material selection to reduce the carbon footprint of the units. Through this process there is the potential to propose alternative construction solutions / material choices which will result in carbon savings, including:

- Introducing cement replacements to foundations, delivery yards and ground floor slab concrete,
- Optimising steel frame solutions to minimise required steel, and
- Efficiencies in of construction equipment and fuel use and to reduce emissions.

The development will also be designed to adapt to the climate changes expected in the future. This will minimise the need to retrospectively adapt the building in the future, as well as optimising resource use (and minimising waste) resultant from these activities or the replacement of building components damaged by changing climatic conditions.

Relevant climate change adaptation measures include:

- Designing the building servicing strategy to limit thermal overheating by sizing the air source heat pumps to cope with predicted increases in temperature based on future climate change scenarios.
- Design the building fabric to be resilient against severe weather events (rainfall, heat waves and wind) and flooding through material choice and cladding fixing selections as well as the design of floor levels and surface water drainage routes (BREEAM Issue Wst 05).
- Implementation of measures recommended by the drainage consultant to ensure that the site is not at significant risk of flooding, with the drainage design including an allowance for climate change.
- The integration of measures to reduce water consumption by 40% over notional baseline to account for seasonal water scarcity and improving water consumption efficiency.

These measures allow the development to reach TBBD's own ambitions, requirements within the BREEAM targeted credits and exceeds the requirements included in Cherwell's Local Plan Policy **ESD1 Mitigating and Adapting to Climate Change.**

5 ENVIRONMENTAL ASSESSMENTS - BREEAM

Sustainable building practices for the Symmetry Park Bicester Phase 3 units are guided by the use of BREEAM (Building Research Establishment's Environmental Assessment Method) to ensure TBBD's contribution towards sustainable development.

BREEAM (Building Research Establishment's Environmental Assessment Method) New Construction is a holistic methodology which considers a range of themes over which buildings can have a direct and indirect impact, not only on their environment but also their occupants. These categories include:

- **Management** – Not only of the design process, but also construction, commissioning and handover of the building
- **Health and Wellbeing** – considers how building design can enhance the comfort and well-being of building users
- **Energy** - Energy efficiency and optimisation
- **Transport** – Encouragement of sustainable transport planning and integration of sustainable transport initiatives
- **Water** - water efficiency, optimisation, leak prevention and detection.
- **Materials** – Optimising material efficiency and the use of materials with a low environmental impact, responsibly sourced.
- **Waste** – Waste minimisation and management in construction and operation
- **Land use and Ecology** – Protecting and enhancing site ecology and optimising ecological outcomes.
- **Pollution** - Preventing pollution to air (combustion emissions, light and noise pollution) and water.

Buildings are assessed using a system of credits. The credits are grouped within the categories. Within each of the BREEAM categories there are a number of credit requirements that reflect the options available to designers and managers of buildings. An environmental weighting is applied to the scores achieved under each category, as shown in the table overleaf in order to calculate the final BREEAM score.

Sector	Weighting (Shell and Core)
Management	11.0%
Health & Wellbeing	8.0%
Energy	14.0%
Transport	11.5%
Water	7.0%
Materials	17.5%
Waste	7.0%
Land Use & Ecology	15.0%
Pollution	9.0%

The weighting factors have been derived from consensus-based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE to establish the relative importance of each environmental issue.

Through the achievement of credits within the different categories, buildings are scored and a BREEAM rating achieved based on the achievement of the following minimum scores:

PASS	**30**
GOOD	**45**
VERY GOOD	**55**
EXCELLENT	**70**
OUTSTANDING	**85**

Buildings which score <30% achieve an Unclassified rating.

In addition to the requirement of achieving these minimum scores, a number of mandatory credits also need to be achieved for the different BREEAM ratings. Without achieving these mandatory requirements, regardless of the assessment score, the relevant BREEAM rating will not be achieved.

5.1 BREEAM Pre-assessment

To evaluate the potential of the scheme to achieve these aspirations, Ridge and Partners has been appointed to undertake a BREEAM New Construction V6.1: Industrial pre-assessment of the Symmetry Park Bicester Phase 3. The aim of this initial assessment is to identify a viable route map towards achievement of the target rating. whilst maximising opportunities to build sustainable design principles into the scheme from the earliest design stages.

TBBD are aiming to achieve a minimum BREEAM rating of Very Good for the of Bicester Phase 3 development. To support the project in achieving this objective, a BREEAM Assessor and BREEAM AP (Approved Professional) have been appointed from RIBA Stage 2 to advise on the BREEAM assessment process, highlight early action and time-dependant credits and undertake a BREEAM pre-assessment.

This support has been provided in the form of attending regular client and design team meetings, provision of reporting templates and issuing schedules identifying the requirements and actions of time-dependant credits.

The initial BREEAM pre-assessment was completed by a licensed and qualified BREEAM Assessor and BREEAM AP following a BREEAM workshop held on the 28th of August 2024, and an Ecology workshop help on 9th of October 2024.

Using the BREEAM New Construction V6.1: Industrial criteria set, an assessment has been completed to determine the potential BREEAM score and rating which could be achieved at formal certification.

A copy of this assessment can be found in Appendix A.

A target score of at 60% has been identified within the pre-assessment, which would enable a rating of BREEAM Very Good to be achieved at a minimum, subject to the achievement of the mandatory requirements.

As the project moves into the next stage, the appointed BREEAM assessor will continue to attend key project meetings and will review how the evolving design impacts on the ability to achieve targeted BREEAM issues.

A robust strategy for completing the BREEAM certification process will be developed and incorporated into the project programme to ensure that the client's requirements can be achieved.

6 SUMMARY

This Sustainability Statement outlines how the proposed speculative Shell and Core industrial Units (E & F) at Phase 3 of the Symmetry Park Development in Bicester seeks to address many aspects of key policies outlined in the Cherwell Local Plan 2011 - 2031. This is summarised in the local planning context table below.

In addition to the general sustainability measures highlighted in the table at the beginning of this report this scheme is committed to achieving a BREEAM to a minimum of Very Good certification which is a reflection of the high sustainability performance being delivered.

Policy Ref	Policy Objective	Development Response
ESD 1: Mitigating and adapting to climate change	• Mitigate the impact of developments within the district on climate change. • Design developments to reduce carbon emissions and use resources more efficiently. • Promote the use of decentralised and renewable or low carbon energy.	• Met - BREEAM Wst 05 Climate Change Adaptation credit targeted • Met- energy hierarchy used • Met – BREEAM Ene04 Low Carbon Design credits targeted • The PV energy allowance of 370 kWp for Unit E and 290 kWp for Unit F
ESD 2: Energy hierarchy and allowable solutions	• Promote an energy hierarchy. • Reduce energy use through sustainable design and construction measures. • Efficient and decentralised energy supply. • Make use of renewable energy and allowable solutions.	• Met- energy hierarchy used • Met – BREEAM Ene04 Low Carbon Design credits targeted • The PV energy allowance of 370 kWp for Unit E and 290 kWp for Unit F
ESD 3: Sustainable Construction	• Achieve through a combination of fabric energy efficiency, carbon compliance and allowable solutions. • All new non-residential development expected to achieve BREEAM Very Good certification. • The demonstration of the achievement of this standard should be set out in the energy strategy. • All development proposals will be encouraged to reflect high quality design and high environmental standards demonstrating sustainable construction.	• Met – BREEAM Ene04 Low Carbon Design credits targeted • Met – overall BREEAM Very Good targeted
Policy ESD 4 – Decentralised Energy Systems	• The use of decentralised energy systems providing heating or heating and power will be encouraged in all new developments. • A feasibility assessment for DH/CHP including consideration of biomass fuelled CHP will be required for all applications for non-domestic developments above 1000m2 floorspace.	• Met – BREEAM Ene04 Low Carbon Design credits targeted, a Low Zero Carbon Feasibility Study produced and included assessment of feasibility of decentralised systems

Policy Ref	Policy Objective	Development Response
ESD 5: Renewable Energy	• Planning applications involving renewable energy development will be encouraged. • Feasibility assessment for the potential for significant on-site renewable energy provision is required for applications for non-domestic development above 1000m2 floorspace.	• Met – BREEAM Ene04 Low Carbon Design credits targeted, a Low Zero Carbon Feasibility Study produced and included assessment of feasibility of renewable energy provision • The PV energy allowance of 370 kWp for Unit E and 290 kWp for Unit F
ESD 6: Sustainable Flood Risk Management	• 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 risk of flooding. • Opportunities sought to restore natural river flows and floodplains. • Buildings over or culverting of watercourses should be avoided and the removal of existing culverts will be encouraged.	• Met – BREEAM credit Pol 03 Flood and Surface Water Management credits targeted.
ESD 7: Sustainable Drainage Systems	• All developments will be required to use sustainable drainage systems for the management of surface water run-off.	• Met – BREEAM credit Pol 03 Flood and Surface Water Management credits targeted.
ESD 8: Water Resources	• The Council will seek to maintain water quality and ensure adequate water resources and promote sustainable water use.	• Met- the building fit out will include low water using sanitaryware, water meters and water leak detection to minimise water use wherever possible
ESD 10: Protection and enhancement of biodiversity and the natural environment	• A net gain in biodiversity will be sought in proposals by protecting, managing, enhancing and extending existing resources and by creating new resources.	Met - The site will meet statutory requirement to achieve 10% BNG, as per Ecological Appraisal produced by EDP (October 2024)

APPENDIX A – BREEAM SUMMARY REPORT

RIDGE

Symmetry Park Bicester Phase 3 Units E & F

BREEAM AP: James Lomas-Holt

Project No.: 5026412

Date: 25.11.24

1. Executive Summary

Required Rating	**Very Good (55%)**	BREEAM Shell & Core (V6.1)	**Project Risk**
Current Target	**60%**		**Low**
Key Actions Required	The project team have been engaged in agreeing a reasonable BREEAM target for the scheme, and the early actions credits (RIBA Stage 2) have been prioritised. The achievement of BREEAM Very Good has been secured at this stage, pending ongoing management		
Next Steps	At the next stage (post planning), a BREEAM update workshop will be held to reiterate the targets and follow up actions. This will include reviewing the RIBA Stage 3-4 actions required as a follow up.		

2. Background to BREEAM Certification

- A BREEAM Very Good certificate is targeted (55% score minimum).
- We are carrying out a managed post construction assessment with a single FINAL stage certification on completion of the building.
- We are carrying out a shell and core certification which allows flexibility in the extent of fit out for future tenants.

3. Current Status Report

- Current target score: **60%**
- Currently RIBA Stage 1-2 (pre-planning)
- Current Planning Submission Target date: Late November
- RIBA Stage 2 Reports received so far –
    - Ene 01 Design stage BRUKLs and EPCs received
    - Ene 04 LZC and PDA reports received
    - Wst 05 Stage 2 report received
    - Wst 06 Stage 2 report received
    - Ecology report received. Ecology workshop also carried out on 9th October 24
    - Man 01 PEP received
    - Pol 03 Flood Risk Assessment received
    - Mat 01 LCA Submitted to the BRE
- On review with ecologist, credits associated with Change and Enhancement of Ecology (LE 04) have been omitted. This does not affect the Very Good target

4. Activities for Next Period

- Team to provide outstanding information as listed on the Early Actions tracker listed overleaf

5. Information Required RIBA Stage 1 - 2

Credit		Time requirements	Comment / Action
RIBA Stage 1			
Mat 03 Req 2	Enabling Sustainable Procurement	Before Concept Design produce a Sustainable Procurement Plan to be used to guide specification of sustainable construction products.	**Responsibility:** Tritax Tritax SPP present, as used on other schemes
LE 02 Req 4-6 & LE 03 Pre-requisite	Ecological Survey and Evaluation	Prior to Planning application carry out an extended ecological survey and produce an evaluation report into the state of existing ecology, local ecological networks, and possible enhancements.	**Responsibility:** EDP Ecological Appraisal Report received 17.10.24
RIBA Stage 2			
Man 01 Req 1-3	Project delivery Planning	Prior to the end of RIBA Stage 2 the project delivery stakeholders meet, identify, and define roles responsibilities and contributions during the key phases. Demonstrate influence over the initial brief, the PEP, the comms strategy and the Concept Design.	**Responsibility:** Savills / Design Team PEP provided
Man 01 Req 8	BREEAM AP (pre-requisite)	Early in the design process the Client & design team formally agrees (in DT appointment docs) strategic performance targets.	**Responsibility:** Tritax / Savills BREEAM target agreed amongst the team
Man 01 Req 9	BREEAM AP (Concept Design)	During Concept design BREEAM AP is involved in supporting maximising BREEAM performance including monitoring, risk evaluation, evidence coordination and advice.	**Responsibility:** Ridge – involvement of JLH ensures this is met
Man 02 Req 1-3	Elemental Life cycle costing	Prior to the end of RIBA Stage 2, an elemental life cycle costing analysis & elemental options appraisal in line with PD 156865:2008 will be completed.	**Responsibility:** Ridge appointed to carry this out This has been completed

Ene 04 Req 1-4	Passive Design Analysis	Requires a Passive Design Analysis (PDA) during Concept Design or early in scheme design stage (RIBA Stage 3) which identifies opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services.	**Responsibility:** CPW – Received 17.10.24
Ene 04 Req 9-12	Low Zero Carbon Feasibility Study	Prior to the end of RIBA Stage 2 a feasibility study of local low or zero carbon energy source(s) is carried out to determine the most appropriate for the development. Reduction in regulated CO2 emissions is quantified.	**Responsibility:** CPW – Received 17.10.24
Tra 01 Req 1-2	Travel Plan	Develop a BREEAM compliant Transport Assessment and draft Travel Plan at Stage 2.	**Responsibility:** Transport Consultant / Tritax – Hydrock received 11.10.24
Mat 01 Req 1-7	Environmental Impacts (Superstructure, Substructure and Hard Landscaping)	At Concept Design Stage, carry out LCA on 4No superstructure options & 6No substructure or hard landscaping options, submit to BRE. Ensuring the LCC & LCA are aligned, and third party verified.	**Responsibility:** Ridge / Tritax / Design Team – Submitted to BRE 18.10.24
Wst 05	Adaptation to Climate Change	Produce a compliant 'Climate Change Adaptation Study' during Concept Design	**Responsibility:** PHP / Hydrock / CPW Received 17.10.24
Wst 06	Design for Disassembly and Adaptation	Produce a compliant 'Design for Disassembly and Functional Adaptation Study' during Concept Design.	**Responsibility:** PHP / Hydrock / CPW Received 17.10.24
LE 02 Req 1-2 & LE 03 req 1-2 & LE 04 req 1-2 & LE 05	Pre-requisite	The client and contractor confirm compliance against all relevant UK ad EU or international legislation relating to the ecology of the site.	**Responsibility:** Savills / EDP / Design Team – Ecology Workshop conducted 09.10.24 and minutes Distributed to design team 30.10.24
LE02 Req 7-10 & LE03 Pre-requisite	Determining Ecological Outcome	Meetings held during the Concept Design Stage (RIBA Stage 2) with ecologist, local wildlife and environmental stakeholders, client/end user and design team (incl. landscape architect and drainage engineer) to discuss possible ecological impacts enhancements and mitigations.	**Responsibility:** Savills / EDP / Design Team – Ecology Workshop conducted 09.10.24 and minutes Distributed to design team 30.10.24

LE03 Req 3-5 & LE04 & 05 Pre-requisite	Planning Measures on Site	During the Concept Design Stage (RIBA Stage 2), appoint a Project Environmental Champion to manage the Environmental impacts and establish the necessary roles and responsibilities throughout the project to maximise the ecological outcomes and start implementation process & review potential impact of site prep & construction on the ecology.	**Responsibility:** Savills / EDP / Design Team –Ecology Workshop conducted 09.10.24, David Wharton of Savills (PM) nominated

6. Areas of Concern

- The evidence listed above needs to be received prior to Planning Submission (current target date of late November).

7. Meeting Schedule

- Design Team Meeting – 27.08.24
- Initial BREEAM Design team Workshop – 28.08.24
- RIBA Stage 2 Ecology Workshop – 09.10.24

APPENDIX B – LOW AND ZERO CARBON FEASIBILITY REPORT