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LAND ADJACENT TO WINDHOVER ROUNDABOUT, BURSLEDON SUSTAINABILITY STATEMENT

Land adjacent to Windhover Roundabout, Bursledon

Sustainability Statement

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Executive Summary

This Sustainability Statement has been prepared on behalf of Wates Developments Ltd (the 'Client') in support of an outline planning application for the Land adjacent to Windhover Roundabout, Bursledon, Hants, SO31 8BN (the 'Site'), comprising the following elements:

- Outline planning application (all matters reserved except for access) for employment development (Use Class B2/B8) of up to 18,580 square metres together with ancillary offices (Use Class E(g)(iii)) and other ancillary buildings, structures, parking, servicing and manoeuvring areas, landscaping and sustainable urban drainage features, following demolition of existing buildings.

The Site is circa 4.63 ha (11.4 acres) and comprises predominantly undeveloped agricultural pasture land, with potential for some Made Ground to be present in limited areas of the Site. The Site takes the form of two connected grassland fields with a patch of tall ruderals and a wet flush along its eastern edge. The Site also includes a small collection of agricultural-type buildings sited on an area of hard standing within its south eastern part. Topographically the Site falls to its south-west towards Bursledon Road, and rises north-east towards West End Road.

In accordance with this description of development, an illustrative masterplan has been prepared which shows the following elements:

- (Unit 1) Warehousing unit totalling 9,586 SqM (103,188 SqFt) comprising Use Class B2/B8 space and ancillary Use Class E office space;
- (Unit 2) Warehousing unit totalling 7,209 SqM (77,599 SqFt) comprising Use Class B2/B8 space and ancillary Use Class E office space;
- Provision of up to circa 175 car parking spaces and up to circa 41 HGV spaces, together with service yards and HGV loading spaces;
- Provision of ancillary external structures such as sprinkler tanks;
- Creation of site access from A3024 Bursledon Road and A27 West End Road, together with provision of signals and other works to the existing highway; and
- Provision of site landscaping, including new planting and provision of swales and other sustainable urban drainage features.

Further requirements are set out in the National Planning Policy Framework (2024¹). This Sustainability Statement also responds to the supporting local policy within the Eastleigh Borough Local Plan 2016-2036², and Eastleigh Borough Council Supplementary Planning Documents.

The purpose of this Sustainability Statement is to provide an independent verification that the design of the Proposed Development is in accordance with the sustainability objectives of relevant planning policy at all levels and is a 'good practice' example for sustainable design.

The application site's performance against policy, industry best practice and standards has been considered across its full lifecycle. This covers the design, construction and operation of the Proposed Development and includes several thematic areas: energy, CO₂ emissions, water management and flood resilience, materials, waste, pollution, health and wellbeing, landscape and ecology, transport, climate resilience, and environmental assessment.

A review of the Proposed Development's sustainability targets against the planning objectives and best practice identifies the opportunities and constraints of the Site and sets the targets for the

¹ Ministry of Housing, Communities & Local Government, 2025. National Planning Policy Framework (NPPF) December 2024 with minor update in February 2025. Available: https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_February_2025.pdf

² Eastleigh Borough Local Plan 2016-2036, April 2022. Available: <https://www.eastleigh.gov.uk/media/11806/to-be-published-final-local-plan-april-2022-v4.pdf>

design team. The sustainability appraisal demonstrates that the Proposed Development would meet the key policy objectives by incorporating relevant measures for each of the thematic areas considered.

By undertaking this sustainability appraisal at such an early stage of the project, the potential impact of the sustainable development has been maximised.

1. Introduction

1.1 Background

This sustainability statement has been prepared by Ramboll UK Ltd ('Ramboll') on behalf of Wates Developments Ltd (the 'Client') in support of an outline planning application, comprising the following elements:

- Outline planning application (all matters reserved except for access) for employment development (Use Class B2/B8) of up to 18,580 square metres together with ancillary offices (Use Class E(g)(iii)) and other ancillary buildings, structures, parking, servicing and manoeuvring areas, landscaping and sustainable urban drainage features, following demolition of existing buildings.

The development plan policies for the Proposed Development are applied from the following key documents:

- Ministry of Housing, Communities & Local Government, National Planning Policy Framework (NPPF), dated December 2024¹.
- Eastleigh Borough Local Plan (2016-2036), dated April 2022

1.2 Scope of Works and Approach

The purpose of this report is to demonstrate that the Proposed Development achieves the sustainable development requirements relevant to local and national policies.

1.1 Structure of Report

Based upon the key drivers for the project (discussed further in Section 2) the following will be covered in this report:

- Energy (section 5);
- Water (section 6);
- Materials (section 7);
- Waste (section 8);
- Pollution (section 9);
- Health & wellbeing (section 10);
- Land use & ecology (section 11);
- Transport (section 12);
- Climate change adaption (section 13); and,
- Environmental Assessment (section 14).

The sections within this report have been structured so that they each contain the following:

- An introduction to the section;
- The sustainability considerations for the site; and,
- A conclusion.

1.2 Limitations and Constraints

This report has been prepared by Ramboll exclusively for the intended use by the Client in accordance with the agreement between Ramboll and the Client defining, among others, the purpose, the scope and the terms and conditions for the services. No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended, or any other services provided by Ramboll.

In preparation of the report and performance of any other services, Ramboll has relied upon publicly available information, information provided by the Client, and information provided by

third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete, and available to Ramboll within the reporting schedule.

Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are intended solely for the use and benefit of the Client for this purpose only and may not be used by or disclosed to, in whole or in part, any other person without the express written consent of Ramboll. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

2. Site Details

2.1 Existing Site

The Site is located adjacent to Windhover Roundabout in Bursledon, which is at the intersection of two arterial routes into Southampton where the A3024 Bursledon Road and A24 West End Road converge. The Site is located close to Junction 8 of the M27 motorway, which is approximately 450m to the northeast of the Site, connected to Windhover Roundabout via the A3024.

The Site is circa 4.63 ha (11.4 acres) and comprises predominantly undeveloped agricultural pasture land, with potential for some Made Ground to be present in limited areas of the Site. The Site takes the form of two connected grassland fields with a patch of tall ruderals and a wet flush along its eastern edge. The Site also includes a small collection of agricultural-type buildings sited on an area of hard standing within its southeastern part. Topographically the Site falls to its south-west towards Bursledon Road and rises north-east towards West End Road.

The Site is adjacent to new residential development and a Tesco Extra store to the south. To the north and north-east of the Site is a deciduous woodland as well as open grassland. To the east is a row of detached and semi-detached houses interspersed with fields and woodland. The Site is bounded by the A3024.

The surrounding context is a mixture of agricultural fields, woodlands, residential and commercial development. The Site is located within the Local Authority of Eastleigh Borough.

The proposed Site is outlined in Figure 1.

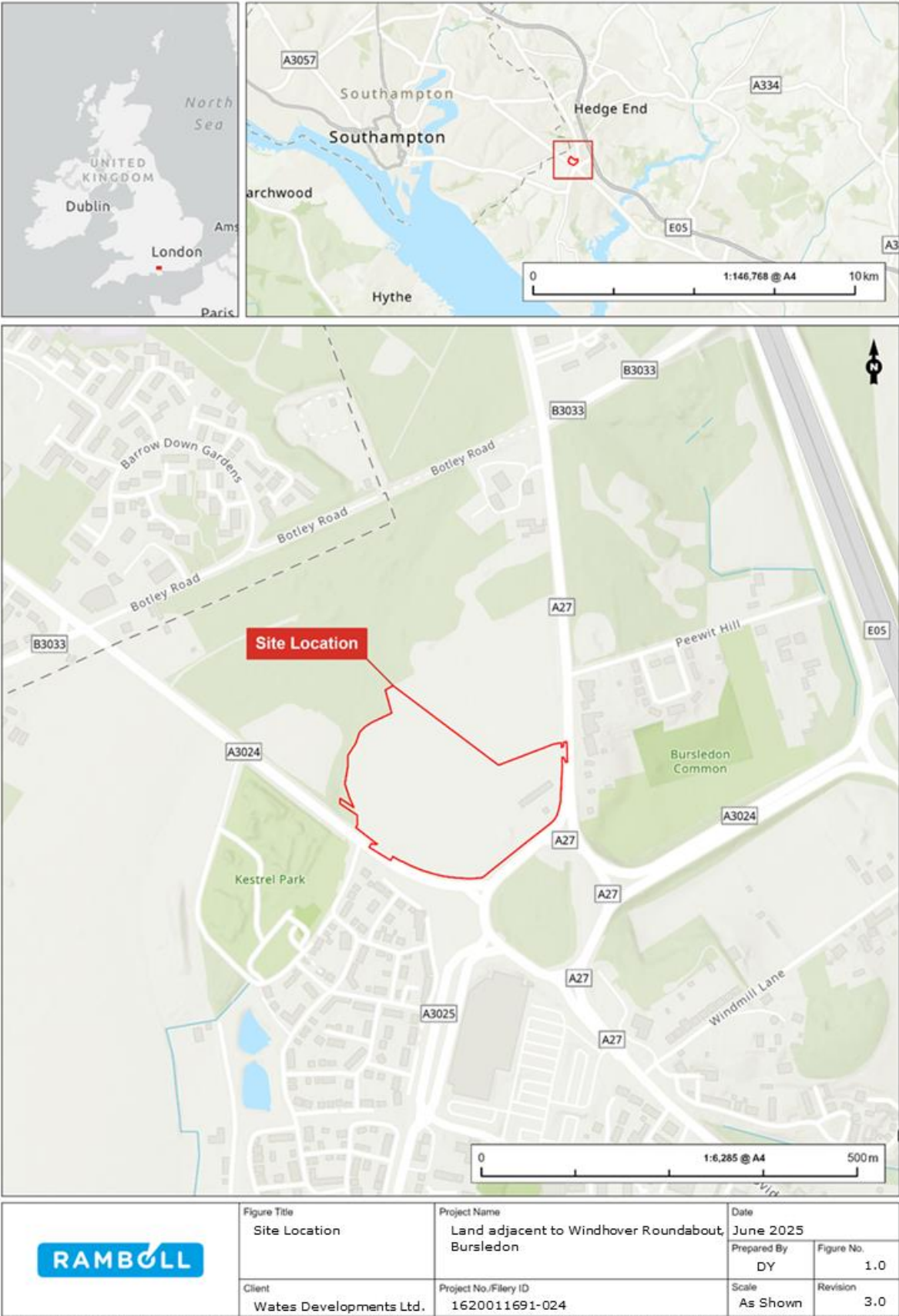


Figure 1: Site Location

2.2 Proposed Development

The Proposed Development consists of an outline planning application (all matters reserved except for access) for employment development (Use Class B2/B8) of up to 18,580 square metres together with ancillary offices (Use Class E(g)(iii)) and other ancillary buildings, structures, parking, servicing and manoeuvring areas, landscaping and sustainable urban drainage features, following demolition of existing buildings.

The illustrative Site layout is shown in Figure 2.



Figure 2: Land adjacent to Windhover Roundabout, Bursledon Illustrative Masterplan (credit: Terence O'Rourke 2025 – 276504-TOR-XX-ZZ-DR-A-P102_Illustrative Masterplan-D)

2.3 Client Ambitions

The Client has set a target to achieve net zero across their operations by 2045, which for new developments means reducing embodied carbon, designing buildings that are operationally net zero, and reducing carbon emissions from the supply chain.

Wates' Sustainability Strategy outlines the organisation's approach to delivering highly sustainable new communities, setting ambitious environmental and social goals, themed around reimagining places for people to thrive, supporting a thriving planet and delivering happy and prosperous places. In turn, these are translated into a set of progressive objectives and standards, based on current best-in-class practice. Wates' Sustainability Strategy ensures that their developments support the transition to a low-carbon future, and promote healthy, inclusive and safe environments.

The Proposed Development will therefore:

- Incorporate a range of sustainable technologies, such as Air Source Heat Pumps (ASHP), PV panels, and EV charging points that will be sensitively integrated into the design;
- Avoid overheating through appropriate design and passive measures;
- Maximise the opportunity for building efficiency and the reduction of carbon emissions embodied within the construction process;
- Consider circular principles in order to maximise material efficiency and minimise waste associated with the Proposed Development;
- Provide an effective and deliverable Travel Plan which will include measures to promote and encouraging active and sustainable travel behaviour, whilst reducing single occupancy journeys;
- Incorporate sustainable Urban Drainage solutions, with the potential to add further biodiversity value;
- Utilise water efficiency measures to reduce the need for mains water use through the installation of low-consumption fittings;
- Deliver a 57.90% for habitat and 425.21% for hedgerow units increase in Biodiversity Net Gain; and,
- Be designed to achieve a BREEAM 'Excellent' rating under the BREEAM UK New Construction V6 methodology.

3. Key Drivers

3.1 National Policy Context

The national policy context includes:



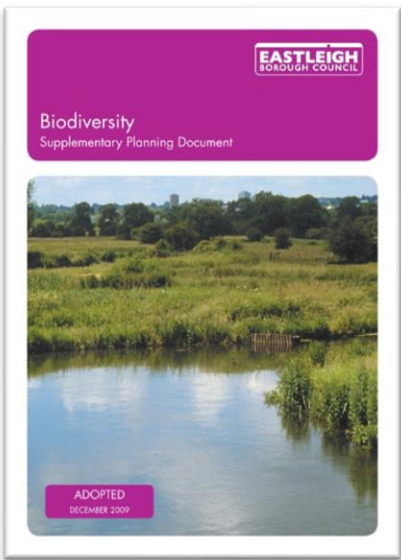
Ministry of Housing, Communities & Local Government, National Planning Policy Framework (NPPF), dated December 2024¹, and subject to minor updates in February 2025.

3.2 Local Policy Context

The local policy context is formed of:



Eastleigh Borough Local Plan (2016-2036) dated April 2022².



Eastleigh Borough Council
Supplementary Planning Documents

Eastleigh Borough Council Supplementary Planning Documents (SPD):

- Biodiversity, 2009³
- Environmentally Sustainable Development, 2009⁴
- Planning Obligations, 2008⁵
- Quality Places, 2011⁶
- Trees and Development, 2022⁷

³ Eastleigh Borough Council, 2009. Biodiversity Supplementary Planning Document (SPD), December 2009. Available: <https://www.eastleigh.gov.uk/media/2392/biodiversity.pdf>

⁴ Eastleigh Borough Council, 2009. Environmentally Sustainable Development Supplementary Planning Document, March 2009. Available: <https://www.eastleigh.gov.uk/media/2395/environmentally-sustainable-development.pdf>

⁵ Eastleigh Borough Council, 2008. Planning Obligations Supplementary Planning Document, July 2008. Available: <https://www.eastleigh.gov.uk/media/1529/supplementary20planning20document20adopted202008-1.pdf>

⁶ Eastleigh Borough Council, 2011. Quality Places Supplementary Planning Document, November 2011. Available: <https://www.eastleigh.gov.uk/media/2398/quality-places.pdf>

⁷ Eastleigh Borough Council, 2022. Trees and Development Supplementary Planning Document, April 2022. Available: <https://www.eastleigh.gov.uk/media/11241/adopted-trees-and-development-spd-april-22.pdf>

4. Policy

4.1 National Policy

4.1.1 National Context: National Planning Policy Framework 2024²

The National Planning Policy Framework (NPPF) 2024² sets out the UK Government's planning policies for England and outlines how these are expected to be applied.

Section 2.11 of the National Planning Policy Framework (NPPF), dated December 2024² states that there is a presumption in favour of sustainable development.

Planning law requires that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise. The NPPF must be taken into account in preparing the development plan and is a material consideration in planning decisions. Planning policies and decisions must also reflect relevant international obligations and statutory requirements.

In addition, compliance with the following sections will be demonstrated through this report:

- Section 2 - Achieving Sustainable Development
- Section 3 - Plan Making
- Section 4 - Decision Making
- Section 8 - Promoting healthy and safe communities
- Section 9 - Promoting sustainable transport
- Section 11 - Making effective use of land
- Section 14 - Meeting the challenge of climate change, flooding and coastal change
- Section 15 - Conserving and enhancing the natural environment
- Section 17 - Facilitating the sustainable use of minerals

4.2 Local Policy

The Eastleigh Borough Council Local Plan (2016-2036) adopted 25 April 2022 sets out relevant planning policy for the borough guiding future development up to 2036 with a focus on developing a strong and sustainable economy.

The Local Plan is supported by a series of Supplementary Planning Documents (SPDs). Whilst these do not represent adopted policy documents, these serve to provide additional planning policy guidance regarding the policies outlined within the Local Plan.

As a minimum, the following policy requirements will be demonstrated within this Sustainability Statement.

4.2.1 Eastleigh Borough Local Plan (2016-2036)⁵

4.2.1.1 Green Borough issues

- G3 Protecting and enhancing biodiversity
- G6 Creating quality places and improving the quality of the Borough's built environment
- G8 Addressing climate change and natural resources
- G9 Addressing air quality and other forms of pollution
- G10 Addressing issues connected with waste water
- G12 Ensuring adequate access to new development sites
- G13 Improving accessibility to public transport and the integration of public transport and other nonmotorized transport networks

4.2.1.2 Sustainable development

- Strategic policy S1 Delivering sustainable development
- Strategic policy S5 New development in the countryside
- Strategic policy S9 Green infrastructure
- Strategic policy S11 Transport infrastructure
- Strategic policy S12 Strategic footpaths, cycleway and bridleway links

4.2.1.3 Development Management

- Policy DM1, General criteria for new development
- Policy DM2, Environmentally sustainable development
- Policy DM3, Adaptation to climate change
- Policy DM4, Zero or low carbon energy
- Policy DM5, Managing flood risk
- Policy DM6, Sustainable surface water management and watercourse management
- Policy DM8, Pollution
- Policy DM10, Water and Wastewater
- Policy DM11, Nature conservation
- Policy DM13, General development criteria – transport
- Policy DM14, Parking
- Policy DM18, Extension and replacement of non-residential buildings in the countryside

4.2.2 Eastleigh Borough Council Supplementary Planning Documents (SPD):

- Biodiversity, 2009⁸ - intends to provide guidance for the nature conservation chapter in the previous (2001-2011) Eastleigh Borough Local Plan. It outlines the expectations of the council with regards to procedures and information to be included in development applications where nature conservation is impacted.

⁸ Eastleigh Borough Council, 2009. Biodiversity Supplementary Planning Document (SPD), December 2009. Available: <https://www.eastleigh.gov.uk/media/2392/biodiversity.pdf>

- Environmentally Sustainable Development, 2009⁹ - guidance on ways in which developments can be environmentally sustainable and the 'essential requirements' can be achieved. The essential requirements noted for non-residential developments over 500sqm are as follows:
 - ESD 1: Minimum Code For Sustainable Homes and BREEAM Requirements
 - ESD 2: Rainwater Harvesting and Greywater Recycling
 - ESD 3: External Water Consumption
 - ESD 4: Reducing Surface Water Runoff
 - ESD 5: Passive Solar Heat Gain
 - ESD 6: Carbon Dioxide Reduction
 - ESD 7: Green Roofs
 - ESD 8: Trees
- Planning Obligations, 2008¹⁰
- Quality Places, 2011¹¹
- Trees and Development, 2022¹²

⁹ Eastleigh Borough Council, 2009. Environmentally Sustainable Development Supplementary Planning Document, March 2009. Available: <https://www.eastleigh.gov.uk/media/2395/environmentally-sustainable-development.pdf>

¹⁰ Eastleigh Borough Council, 2008. Planning Obligations Supplementary Planning Document, July 2008. Available: <https://www.eastleigh.gov.uk/media/1529/supplementary20planning20document20adopted202008-1.pdf>

¹¹ Eastleigh Borough Council, 2011. Quality Places Supplementary Planning Document, November 2011. Available: <https://www.eastleigh.gov.uk/media/2398/quality-places.pdf>

¹² Eastleigh Borough Council, 2022. Trees and Development Supplementary Planning Document, April 2022. Available: <https://www.eastleigh.gov.uk/media/11241/adopted-trees-and-development-spd-april-22.pdf>

5. Energy

5.1 Introduction

Emissions from buildings account for 37% of total UK greenhouse gas emissions. These are made up of 45% direct emissions due to the burning of fossil fuels for heat, and 55% indirect emissions related to electricity use. Factors such as the thermal insulation, air permeability, shading and glazing areas should be carefully considered early as they can be used to reduce heating, cooling and lighting demands. Systems efficiency and carbon intensity of the selected energy source are also important.

Detailed and accurate energy modelling can consider factors like occupancy, weather scenarios and management of building services as well as any contributions from renewable and low carbon technologies. More detailed modelling helps the design teams predict the expected energy performance and take appropriate actions to reduce the performance gap where they are involved post occupation. Actual usage patterns are changing over time, and it is possible that predicted energy consumption will not be that close to the actual energy consumption. However, with the use of accurate modelling any areas of difference can be identified, and appropriate actions can be taken to optimise energy performance.

5.2 Sustainability Considerations

5.2.1 Energy Strategy

The energy assessment presented in the Ramboll Energy Strategy (March 2026) demonstrates a comprehensive approach to reducing carbon emissions associated with the Proposal.

Considering the outline nature of the Proposed Development, three options have been assessed for the energy strategy:

- Option 1: Heating and cooling via Variable Refrigerant Flow (VRF) to office, and no space heating to warehouse spaces
- Option 2: Heating and cooling via ASHP and Fan Coil Units (FCUs) to office, and space heating via ASHP with radiant panels to warehouse spaces.
- Option 3: Heating and cooling via VRF to office areas, and space heating via ASHP with radiant panels to warehouse spaces.

All options exceed the Part L 2021 of the Building Regulations and achieve the minimum 15% carbon emissions reductions target through onsite Low and Zero Carbon (LZC) technologies as per Policy DM2 of the Eastleigh Borough Local Plan. In addition, the number of Ene 01 credits under BREEAM UK New Construction V6.1 scheme were assessed for all the options. This confirms that all options would exceed the minimum of 4no Ene 01 credits required for a BREEAM 'Excellent' rating.

The following sections outline the proposed design measures which have been considered to achieve the associated compliance goals.

5.2.1.1 Passive Design Measures

The following passive design measures will be included in order to limit, as far as practically possible, the energy demands and CO₂ emissions arising from the Proposed Development:

- The general internal layout is designed to provide good daylight access for the majority of occupied spaces;
- High performing engineered façade with optimised U-values (better than) the standards set out in Part L (Volume 2) of the 2021 Building Regulations have been proposed;
- Appropriate proportion of glazing and a glazing g-value carefully selected to minimise solar gain in the summer, but also to maximise solar gain in winter;

- External shading elements, and recessed windows are proposed to decrease overheating in summertime; and,
- Air Tightness target of 3 m³/hr/m² @ 50Pa or less.

5.2.1.2 Active Design Measures

The following energy efficiency measures will be included in the Proposed Development in order to limit the demand for primary energy:

- Energy Efficient LED lighting to be installed throughout;
- Warehouse unit, circulation spaces, stores and office area lighting is to be fitted with presence detection controls;
- The warehouse unit, circulation, reception and office area lighting is to be fitted with daylight sensitive controls;
- All fans and pumps should operate with variable speed control;
- Mechanical ventilation with heat recovery is to be installed where balanced supply and extract ventilation is required, with a minimum heat recovery efficiency of 80%;
- Hot water pipes, tanks and ducts should be insulated; and,
- Energy metering will be in accordance with the recommendations set out in TM31.

5.2.1.3 Connection to a District Heating Network

The potential for connection to an existing or proposed area wide decentralised energy network has been considered. Currently, there is no heat network in the vicinity of the development. In order to future proof the Mechanical, Electrical, and Public Health (MEP) design, it has been recommended to allow connectivity to an area wide heating/cooling network if one should become available in the future.

5.2.1.4 Low and Zero Carbon (LZC) Technologies

As outlined in the Low and Zero Carbon Technologies (LZC) Feasibility Study produced by Ramboll in March 2026, a series of Low and Zero Carbon technologies have been assessed to determine their feasibility for the project. This has considered all LZC technologies appropriate to the Site and building use, appraising these on an individual basis. The results of this analysis are outlined in Table 1. All technologies highlighted in red have been discounted as not feasible for the scheme. All technologies highlighted in green and amber have been investigated further.

Table 1: Feasibility of different LZC Technologies

TECHNOLOGY	Solar access	Access to river/stream	Coastal access	Wind access	Access to biomass	Access to solar	Access to solar	Access to solar	Local heat network	Constant base load	Notes
Air/Water source heat pump (ASHP)						✓					A centralised ASHP system can provide significant carbon reductions over a natural gas fuelled scheme. ASHP technology is deemed viable for this site.
Photovoltaics (PVs)	✓										A PV network is a very economically and technically feasible technology incorporating a low capital cost and achieves a simple payback. PV systems are a significantly developed technology and are used worldwide as one of the most versatile technologies.
Solar thermal water heating	✓										Use of solar thermal would be limited to DHW, use of solar thermal for space heating not feasible as it is not required when solar thermal is most effective.
Wind				✓							Not considered an efficient option due to low wind profiles and turbulence, leading to low energy yields. Also, the visual impact and noise generated would cause issues to residents and businesses.
Ground Source Heat Pump (GSHP)								✓			A detailed ground survey would be required to assess the viability of use. Significant costs associated with the necessary ground works.
District Heating									X		No proximity to any district heating network (DHN).
Hydro power		X									No river / stream with suitable flow / head to generate power.
Tidal / Wave power			X								No suitable tidal flow near site.
Water Source Heat Pump (WSHP)							X				No water body nearby to the site, therefore this technology is not viable.

TECHNOLOGY	Solar access	Access to river/stream	Coastal access	Wind access	Access to biomass	Access to solar	Access to solar	Access to solar	Local heat network	Constant base load	Notes
Combined Heat and Power										X	CHP shown to increase carbon emissions when new SAP10 carbon factors applied. Generally being phased out due to being gas-fired and grid electricity being less carbon intensive.
Biomass										X	Would require solid fuel deliveries to site and dedicated space for storage of the biomass fuel. Requires additional duties and is not considered a long-term solution.

Following these assessments, appropriate technologies have been recommended for the building units. All 3no. options would adopt ASHPs to office space heating and cooling, and ASHP with radiant panels to warehouse space heating for Options 1 and 2. Additional information on the proposed systems for each option can be found in Table 2.

Table 2: overview of Proposed Systems.

	Option 1	Option 2	Option 3
Warehouse			
Heating	None	ASHP + Radiant Panels	ASHP + Radiant Panels
Domestic Hot Water	N/A	N/A	N/A
Office			
Heating	ASHP/VRF	ASHP + FCU	ASHP/VRF
Cooling	ASHP/VRF	ASHP + FCU	ASHP/VRF
Domestic Hot Water		ASHP with storage volume 300 litres for Unit 1, and 150 litres for Unit 2	

A substantial roof-mounted photovoltaic (PV) Panels are also proposed for the development as follows:

- Unit 1: 700 sqm; and,
- Unit 2: 320 sqm.

5.2.2 Energy Strategy Results

Using the options assessed, it has been demonstrated that compliance with Part L 2021 will be achieved by the development. The results of these options are outlined in Table 3. In addition, the proposed measures under all 3no. options would exceed 4no Ene 01 credits, meeting local policy requirements and the mandatory level of performance required to achieve a BREEAM 'Excellent' rating. The individual energy strategy results for all 3no. options are presented in Tables 4-6 overleaf.

Table 3: Proposed Energy Strategy Options

	% CO2 emissions reduction	BREEAM ENE01 Credits	Description
Option 1	67.8%	8	VRF (heating/cooling to office), and unheated warehouse.
Option 2	48.3%	8	ASHP with FCU (heating/cooling to office), ASHP with radiant panels space heating to warehouse.
Option 3	46.4%	8	VRF (heating/cooling to office), ASHP with radiant panels space heating to warehouse.

Table 4 Option 1 – CO2 energy strategy results (Part L 2021)

	TER (kgCO ₂ /m ²)	BER (kgCO ₂ /m ²)
Unit 1	2.76	0.87
Unit 2	2.22	0.97
Total	2.70	0.90
Carbon savings	-67.8	
BREEAM ENE01 Credits	8	

Table 5 Option 2 – CO2 energy strategy results (Part L 2021)

	TER (kgCO ₂ /m ²)	BER (kgCO ₂ /m ²)
Unit 1	3.78	1.91
Unit 2	3.47	2.36
Total	3.80	1.90
Carbon savings	-48.3	
BREEAM ENE01 Credits	8	

Table 6 Option 3 – CO2 energy strategy results (Part L 2021)

	TER (kgCO ₂ /m ²)	BER (kgCO ₂ /m ²)
Unit 1	3.75	1.97
Unit 2	3.42	2.37
Total	3.70	2.00
Carbon savings	-46.4	
BREEAM ENE01 Credits	8	

Considering the outline nature of the Proposed Development, full details of the Energy, Renewables and Low Carbon Statement will be provided at the reserved matters stage.

5.2.3 Embodied Carbon

Please note, the embodied carbon section of this report can be found in Section 5: Materials.

5.2.4 Construction Energy Use

Monitoring energy consumption is valuable in informing construction practices and maximising performance. The principal contractor will therefore be required to assign responsibility to an individual for monitoring, recording, and reporting energy consumption from all on-site construction processes throughout the build programme. The contractor will be required to set targets for energy consumption (kWh and where relevant, litres of fuel used) and then compare this to the actual energy consumption at the end of the project.

5.3 Conclusion

The Ramboll Energy Strategy demonstrates that the Proposal has taken account of carbon emissions within the design in the following ways:

- The building envelope includes high thermal performance and efficient MEP systems; and

- A heat pump system will be utilised to provide space heating and DHW demands for the office spaces. A substantial PV array is proposed to generate renewable electricity.

As a result of the measures proposed, the Proposal:

- Can comfortably meet Part L 2021 requirements with compliance margins of BER vs. TER achieved.
- Can enable >4no. BREEAM Ene 01 credits to be awarded, meeting the mandatory level of performance required to achieve a BREEAM 'Excellent' Rating.
- Can achieve a reduction in regulated (Part L) annual energy demands due to the provision of Air Source Heat Pump (ASHP) systems and roof-mounted photovoltaics arrays.

6. Water

6.1 Introduction

The water industry is at the forefront in the fight against climate change as all the main impacts; temperature change, more intense rainfall, changing rainfall patterns, and sea level rises all directly affect water companies, water sources, and the impacts of flooding.

Some of the impacts, such as severe droughts and flooding can be obvious, however, others, such as saline intrusion into groundwater sources and the changes to peak demand can be subtler and could lead to concerns on the supply of fresh potable water and the impact and security of buildings against future flooding.

6.2 Sustainability Considerations

6.2.1 Flood Risk

As of June 2025, the Environment Agency Flood Map for Planning shows that the Site is in Flood Zone 1 and is therefore in an area with low probability of both tidal and fluvial flooding, with less than a 1 in 1000-year annual probability of flooding. The Environment Agency Flood Map for the development can be viewed in Appendix 1 of this report.

This is consistent with the Flood Risk Assessment produced by Jubb Consulting Engineers Ltd. in March 2026, which outlines that the Site is in an area considered to be at a low risk from surface water flooding as well as from other sources including overland flows, sewers, groundwater or artificial water bodies. The development proposals do not increase the flood risk to either site or the surrounding area from tidal or fluvial sources.

According to the NPPF guidance the development use is considered suitable for the Site due to the low probability of flooding. As the Site is situated in Flood Zone 1, the development is deemed appropriate, and an Exception Test is not required.

Subject to adherence to the proposed Surface Water Drainage Strategy, it is expected that flood risk at the Site can be managed in a safe and sustainable manner over the lifetime of the development, taking climate change into account and fittingly for the vulnerability of proposed users. Therefore, the proposed scheme is deemed acceptable.

6.2.2 Drainage Strategy

The increase in impermeable area resulting from development over existing permeable surfaces will increase the surface water discharge generated at the site. The impermeable hardstanding areas of the Site can be split into three distinct areas:

- Building roof areas;
- HGV parking and manoeuvring areas; and,
- Staff car parking.

The Site is entirely greenfield in its current state excluding the small agricultural buildings located to the southeastern side of the Site. As such, a surface water drainage strategy has been prepared and is presented in the Flood Risk Assessment & Drainage Strategy Report, produced by Jubb Consulting Engineers Ltd. in March 2026. This outlines the comprehensive SuDS scheme to provide water quality betterment and satisfy local policy.

The existing ground conditions appear to suggest infiltration methods will not be a viable solution for the discharge of surface water flows from the Proposed Development. It is therefore proposed to discharge flows via an attenuation option to the existing watercourse located to the south-west of the Site. It is proposed to discharge flows from the Site at a restricted predevelopment Q1

greenfield rate of 15.9 l/s for the developable area. Restricting the offsite surface water discharge to the required greenfield rate, an estimated storage volume of approximately 2,720m³ is required to accommodate the maximum offsite discharge rate for all events up to the 1 in 100-year plus 45% climate change scenario. It is proposed to split the proposed discharge rate and attenuation storage proportionally between the two proposed industrial units.

The attenuation tanks will be supplemented with additional features considered throughout the Site such as permeable paving and swales/ raingardens to supplement the overall drainage strategy for the Site. These features will provide ecological benefits as well as water quality benefits through the dilution, infiltration, and settlement of solid particles. Downstream defenders and petrol interceptors will also be considered as applicable to meet water quality requirements for the Proposed Development.

The surface water drainage network for the scheme has been modelled to not flood for the 1 in 100 year plus 40% climate change storm events. It is considered that as a result of the proposed measures, surface water runoff can be managed in a safe and sustainable manner for the lifetime of the development and with due regard to climate change.

The proposed drainage layout is presented in Appendix 2. The drainage strategy for the scheme will be developed further as the design develops. An appropriate maintenance plan will be implemented for these measures.

6.2.3 Potable Water Use

The current BREEAM assessment for the development has targeted 4 out of 5 credits under the Wat 01 credit issue. This will require the installation of efficient water-consuming components commensurate with a 50% improvement in water consumption (litres/person/day) for the assessed building over baseline performance. The sanitaryware specification will be developed further in line with this target as the design progresses.

Sub-metering of water usage allows water consumption to be better accounted for. Large water consumers can be identified with the aim of encouraging the reduction in water use where practical. Fluctuations in consumption can also be identified and dealt with as appropriate. The development will therefore be provided with appropriate water meters.

In addition, a leak detection system will be installed on the utilities water supply, to detect any major leaks between the utilities supply and the buildings, as well as within the building.

Flow control devices will also be installed to regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework.

6.2.4 Construction Water Use

Monitoring water consumption is valuable in informing construction practices and maximising performance. The current BREEAM pre-assessment for the industrial buildings ensures that the principal contractor will be required to assign responsibility to an individual for monitoring, recording, and reporting water consumption from all on-site construction processes throughout the build programme. The contractor will be required to set targets for the potable water consumption (m³) and then compare this to the actual water consumption at the end of the project.

During the construction phase of the development the contractor will be required to ensure that appropriate provisions are put in place to ensure that the water quality of the surface water discharge from the Site is maintained. This will involve measures to prevent silts or other construction waste being conveyed offsite through surface water runoff.

6.3 Conclusion

The Site is in Flood Zone 1 and is therefore at low risk of flooding. The Proposed Development includes a site wide drainage strategy which will collect and discharge flows in a sustainable manner. It is proposed to discharge flows to the existing watercourse at a restricted greenfield rate and will not increase the risk of flooding to the site or surrounding area.

The drainage strategy for the development includes attenuation storage as well as areas of permeable paving and swales/raingardens to supplement the overall drainage strategy for the Site. In addition, downstream defenders and petrol interceptors will also be considered as applicable to meet water quality requirements for the Proposed Development. An appropriate maintenance plan will be implemented for these measures.

Measures have also been incorporated into the design and construction of the development to reduce the consumption of potable water, as well as to reduce potable water wastage associated with leaks and unregulated water demands.

The principal contractor will be required to monitor water consumption throughout the construction phase, and will be responsible for ensuring that the water quality of the surface water discharge from the Site is maintained.

7. Materials

7.1 Introduction

The use of construction products leads to a wide range of environmental and social impacts across the life cycle through initial procurement, wastage, maintenance and replacement. Taken together, construction products make a highly significant contribution to the overall life cycle impacts of a building. Selecting materials at an early stage can therefore be crucial in reducing the embodied carbon of a building or development.

In addition to selecting (where possible) materials with low environmental impacts, materials can also be sourced using manufacturers/suppliers with responsible sourcing certification. Responsible sourcing of construction products takes a holistic approach to sustainability by considering the way in which the materials are mined/harvested, manufactured, processed and recycled.

7.2 Sustainability Considerations

7.2.1 Design Stage Considerations

As part of the BREEAM assessment for the development, the design team will undertake a Life Cycle Assessment (LCA), to identify measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building. This will cover the design of the development superstructure, as well as the substructure and hard landscaping elements. Initial analysis of Unit 1 was undertaken by Ramboll in March 2026, with the aim of measuring the projected carbon emissions associated with the development. This sought also to identify carbon hotspots, and to evaluate design options to reduce carbon emissions. This analysis concluded that the upfront carbon emissions associated with the development were 461 kgCO₂e/m² or 4,744 tonnes CO₂e total. The whole life embodied carbon emissions were found to be 596 kgCO₂e/m² or 6,036 Tonnes CO₂e total. Key contributors to embodied carbon were identified, including the building frame, finishes, substructure, and upper floors, indicating significant opportunities in these areas. By targeting these areas and enhancing collaborated across disciplines, the project will aim to achieve substantial reductions in embodied carbon emissions as the project progresses.

Exposed elements of a building or landscaping are at risk of damage through impact or wear and tear. This can result in significant and unnecessary materials use and waste generation across the life of a building. This can be minimised by risk areas being identified and designed out, and suitable protection measures being provided.

As the design develops, measures will therefore be incorporated into the Proposal's design and construction in accordance with the following:

- Prevent negative impacts of high user numbers in relevant areas of the building (e.g., corridors, lifts, stairs, doors etc.);
- Prevent damage from any vehicle or trolley movements within 1 m of the internal building fabric in storage, delivery, corridor and kitchen areas;
- Prevent external building fabric damage by vehicles. Protection where parking or manoeuvring areas are within 1 m of the building façade and where delivery areas or routes are within 2 m of the façade, i.e. specifying bollards or protection rails; and,
- Prevent potential malicious damage to building materials and finishes, in public and common areas where appropriate.

7.2.2 Embodied Carbon

The design team will incorporate circular economy principles throughout the development to reduce embodied carbon where possible.

In an effort to minimise waste and promote resource efficiency, the project team will consider undertaking a comprehensive pre-demolition audit of all existing buildings, structures or hard surfaces being considered for demolition. The purpose of this exercise will be to determine whether existing materials exist on site which may be re-used and re-purposed throughout the Proposed Development, and to maximise the recovery of material for subsequent high grade or value applications. Where possible, retained materials will be re-used and re-purposed in situ, and existing materials will be prioritised over the specification of virgin materials where practical. In specifying new materials, the project team will implement material efficiency measures where feasible and practical. Specification will consider the use of materials with higher levels of recycled content, materials with lower embodied carbon, and will consider alternative design and construction methods that result in lower material usage and waste levels. Where possible, the design team will advocate for local procurement where feasible and will promote the use of fuel-efficient transport of materials, plant and machinery including those powered by sustainable electricity.

The design team will also consider product life cycles, including the impacts of materials once deconstructed. Materials will be prioritised which have a long lifespan and require minimal maintenance and replacement. Furthermore, to reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape the specified materials will be resilient. Layer independence will be introduced where feasible, designing building systems and components in layers so that independent removal, adjustment or replacement of elements is feasible, especially when different components have different life spans. Where practical, the design will advocate the use of materials which can be recycled or reused at the end of their service life.

7.2.3 Construction Stage Considerations

Most construction products involve long and complex supply chains that result in a wide range of impacts locally and globally. These might include environmental (e.g., toxicity or biodiversity), economic (e.g. corruption) or social (e.g. slave labour, equality) issues and can occur during the extraction, processing, manufacturing or supply chain stages. The increasing globalisation of supply chains increases the difficulty of tracing the supply chain and mitigating negative impacts caused by it.

Credible certification schemes exist to increase confidence to specifiers that risks are being minimised or avoided and their use ensures that specifiers are able to demonstrate the responsible nature of their selection decisions.

As part of the Proposal, 100% of timber and timber-based products used on the Site will be 'legal' and 'sustainable' as per the UK Government's Timber Procurement Policy¹³. In addition, a documented sustainable procurement plan will be produced to guide the specification towards sustainable construction products. The principal contractor will be required to source materials from suppliers, where feasible, which have responsible sourcing accreditation, such as BES 6001 and ISO 14001. Where practical, new building materials will be sourced locally to reduce transportation pollution and support the local economy. Materials with an Environment Product Declaration (EPD) and/or are extracted or manufactured within the UK or EU will be prioritised where feasible.

7.3 Conclusion

The design team has considered design options to identify those with a low environmental impact, and in order to reduce it as far as possible, consideration has been given to the embodied carbon within the development. Furthermore, to reduce the need to repair and replace materials resulting

¹³ Department for Environment, Food & Rural Affairs, 2013. Timber Procurement Policy (TPP). Available: <https://www.gov.uk/guidance/timber-procurement-policy-tpp-prove-legality-and-sustainability>

from damage to exposed elements of the building and landscape the specified materials will be resilient. The development's carbon emissions will be considered over its lifetime, accounting for embodied carbon emissions and any future potential carbon emissions post 'end of life'.

The principal contractor will be required to source products in accordance with the sustainable procurement plan for the development. Where feasible, responsible sourcing certification will be required on products used throughout construction. All timber, and timber-based products, will be sourced in accordance with the UK Government Timber Procurement Policy.

8. Waste

8.1 Introduction

More than 400 million tonnes of materials get delivered to building sites each year. Of these around 60 million tonnes of UK waste go straight to waste collection facilities due to inappropriate or over-ordering and damage resulting from poor storage. The effects of construction activity on waste production are enormous. The industry produces 109m tonnes of construction waste each year (24% of total waste), of which up to 13% is delivered but unused, it produces on average three times more waste than all UK households combined. Around 25 million tonnes of construction waste are disposed to landfill each year.

8.2 Sustainability Considerations

8.2.1 Circular Economy

Building standards and institutional requirements are often based on standardised, tried and tested, design solutions which can result in significant over specification of elements and hence material use. Some of this is to allow for future flexibility in use that will never in reality be used and more is the result of conservative evaluation of risk. Therefore, optimising material use in the context of a specific project is one of the key resource efficiency goals for any sustainability strategy. This can be achieved through careful consideration of current and future project demands to maximise the efficient use of materials, waste prevention and reduction, minimal damage to the environment and reduced depletion of natural resources.

Ramboll produced a Circular Economy Statement for the scheme in March 2026. This was produced with the aim of establishing key circularity principles in the proposed design, identify relevant targets and ambitions, and provide guidance to be carried forwards into the developed design. This has identified some key early design decisions that have been taken to maximise the circular potential of the development, improving flexibility, adaptability, robustness, and material efficiency. Core principles have also been identified which will benefit the next stage of the project's design:

- Building in layers;
- Designing out waste;
- Designing for longevity;
- Designing for adaptability or flexibility;
- Designing for disassembly; and,
- Using systems, elements or materials that can be reused and recycled.

As part of the BREEAM assessment for the development, the design team has also reviewed options to maximise material efficiency, prioritising the:

- Reduction of material use in building design;
- Reuse of existing materials;
- Use of materials with higher levels of recycled content; and,
- Understanding of, and the performance of, alternative design and construction methods that result in lower material usage and waste levels.

A high-level bill of materials has been prepared for the structure, envelope and hard landscaping elements of the development. This estimates over 16,000 tonnes of material and highlights key focus materials for the design including earthworks, concrete and the steel frame where material efficiency and circular design could have the most benefit.

To avoid unnecessary materials use arising from over specification without compromising structural stability, durability, or the service life of the Proposal, consideration will be given at each stage of the building design.

In addition, the adaptability & flexibility of the development has been considered with respect to the potential need for future adaptation due to changing functional demands, as well as the ability to reclaim and reuse materials at the end of the building lifespan. The following issues have been prioritised within the development design:

- Reduction of waste and associated with future refurbishment, fit-out and in demolition;
- The ability to cost-effectively reuse and recycle materials at the end of building life;
- Increased lifetime value of materials and products; and,
- Reduced waste associated with the need for future adaptation, demolition and strip-out.

Climate resilience and building longevity has also been considered, in order to minimise building damage and the need for future works to adapt the building to account for more extreme weather resulting from climate change. As such, the following has been considered within the development design:

- Asset resilience when considering the likely impacts of future climate change;
- Reduction of risks relating to safety arising from extreme weather events and climate change; and,
- Reducing the need for future adaptation, maintenance and disruption associated with responding to climate change and extreme weather events.

As per the Surface Water Drainage Strategy produced by Jubb Consulting Engineers Ltd. in March 2026, the surface water drainage network for the scheme has been modelled to not flood for the 1 in 100 year plus 40% climate change storm events. Further detail on climate resilience measures are covered in Section 13 of this report. These factors will be considered further as the design develops.

8.2.2 Construction Waste and Demolition Waste

The Site is part previously developed land, with a collection of agricultural type buildings near the eastern boundary. These will be demolished to enable the development. Demolition materials will be re-used on-site where viable.

The principal contractor will be required to adhere to a Sustainable Procurement Plan, which will set out procurement requirements relating to opportunities for minimising construction waste on-site for all suppliers and trades. Where possible, suppliers will be utilised which offer recycling or take-back schemes for unused materials, as well as recycling or minimisation schemes for waste packaging.

The principal contractor will be required to abide by a resource management plan which will require waste materials to be sorted into separate key waste groups, and appropriate recovery or recycling routes identified for these waste streams where feasible in order to maximise the diversion of waste from landfill. This will also outline routes for material re-use on site wherever possible. The principal contractor will be required to meet, or improve upon, the benchmarks for non-hazardous waste and diversion from landfill as outlined in Tables 7 and 8 respectively.

Table 7: Construction waste resource efficiency benchmarks

Amount of waste generated per 100m ² (GIA)	
m ³	Tonnes
≤ 7.5	≤ 6.5

Table 8: Diversion from landfill benchmarks

Type of waste	Volume	Tonnage
Non-demolition	70%	80%
Demolition	80%	90%

8.2.3 Operational Waste

The development has been designed to encourage the recycling of operational waste. As part of the BREEAM pre-assessment the development will be provided with a dedicated space for the segregation and storage of operational recyclable waste. This space will be:

- Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams;
- Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors; and,
- Of a capacity appropriate to the building type, size, number of units and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates.

As outlined in the Design and Access statement produced by Terence O'Rourke in March 2026, refuse collection points are located on site access roads, near to building entrances for pickup by local authority or commercial operators. Where larger volumes of waste generation are anticipated, an allowance for storage and waste streaming has been accounted for within the buildings, or alternatively in segregated areas within the secure yards.

8.2.4 Conclusion

The development has been designed with material efficiency in mind from the outset, and circular economy principles have been considered for the development with the aim of minimising present and future waste streams associated with construction and demolition stages.

The principal contractor will be required to implement waste management techniques on site to reduce the amount of construction waste produced, and ensure waste is diverted from landfill in accordance with the waste hierarchy.

Appropriate operational waste facilities will be provided to support the development in operation.

9. Pollution

9.1 Introduction

Pollution is the process of making land, water, air or other parts of the environment dirty, unsafe or unsuitable for use. Any substance that is not naturally found in an environment could cause environmental pollution. A significant issue with environmental pollution is that the effects are not always immediate or completely understood, furthermore, mitigation measures are not always completely effective. The prevention of environmental pollution should therefore always be considered rather than mitigation.

9.2 Sustainability Considerations

9.2.1 Contaminated Land

Geo-Environmental undertook a Phase 1 assessment of the geotechnical and geo-environmental factors pertaining to the Proposal in November 2023, as well as a Ground Appraisal Report produced by in December 2023. These studies concluded that a maximum risk rating of 'moderate/low' has been assigned in relation to the intended end users of the Site.

A Ground Gas Assessment summary note was issued by Geo-Environmental in April 2024. This summarised that the potential risk to the Site is anticipated to be low, with no ground gas protection measures required.

The principal contractor will be required to adhere to a Construction Environmental Management Plan (CEMP) outlining requirements to manage contaminated land risks and to minimise pollution risks to groundwater and to human health of construction workers. The CEMP will be developed prior to commencement of works on-site, as a planning condition requirement. Demolition and construction works will be undertaken in line with standard practice and legislative requirements. In addition, downstream defenders and petrol interceptors will be provided as required to the completed development to minimise future risks arising from the Proposal.

9.2.2 Air Pollution

An Air Quality Assessment was produced by Ramboll in March 2026. This report describes existing air quality within the study area and assesses the impact of the construction and operation of the development on air quality in the surrounding area.

9.2.2.1 Existing Air Quality

The Site is adjacent to the Hamble Lane Air Quality Management Area (AQMA), declared in 2006 for exceedances in Nitrogen Dioxide (NO₂) annual mean concentrations. The AQMA has been compliant with the National Air Quality Objective (NAQO) over the past three years.

Available monitoring data and predicted baseline concentrations indicate that existing long and short term NAQOs for NO₂, PM₁₀ and PM_{2.5} are likely to be met for the proposed site and in the surrounding study area.

9.2.2.2 Construction Air Pollution

Construction activities have the potential to generate fugitive dust emissions which may give rise to negative impacts in the form of soiling of surfaces, risk of health effects due to the increase in exposure to PM₁₀ concentrations and damage to vegetation and ecosystems (where very high levels of soiling occur).

As outlined in the Air Quality Assessment produced by Ramboll, there are numerous existing receptors (such as residential properties, schools, and designated ecological sites) within 250 m of

the site boundary and within 50 m of the routes proposed to be used by demolition and construction traffic.

An assessment of potential impacts to air quality during the demolition and construction stage has confirmed that the proposed activities, together with the location of nearby sensitive receptors, results in an overall medium risk for dust soiling and human health effects. Dust impacts would be effectively controlled through the implementation of suitable mitigation measures, which should be implemented through a Construction Environmental Management Plan (CEMP). With the mitigation in place, the construction stage dust effects in the study area would be temporary and not significant.

9.2.2.3 Operational Air Pollution

The Proposed Development is expected to result in a maximum net increase in annual average daily traffic (AADT) of 904 (452 HDVs) two-way vehicles per day on the site access road when the development is operational. A detailed modelling assessment showed that vehicle emissions associated with the Proposed Development are expected to have a negligible impact on air quality at all modelled receptors, which demonstrates that the effect of the Proposed Development on local air quality will be not significant.

No combustion-based systems will be used through the development to provide heating and domestic hot water (DHW), and the development has been designed to run off electric systems only. As a result, there will be no local air quality impacts of emissions from the energy plant, serving to further improve the air pollution associated with the development as the national electricity grid becomes increasingly decarbonised.

Furthermore, to reduce the level of greenhouse gas emissions associated with the development, all refrigerant containing systems will be reviewed with the aim of minimising any leakage of refrigerants from building systems to the atmosphere.

As outlined in the Air Quality Assessment produced by Ramboll, the predicted annual mean NO₂, PM₁₀ and PM_{2.5} concentrations in 2030 without and with the Proposed Development in place are well below the relevant NAQOs at all existing receptor locations. Additional measures proposed to mitigate against poor air quality during the completed development stage include a Travel Plan to promote active travel and public transport use, electric vehicle charging, and improved walking and cycle routes in the vicinity of the Site.

9.2.2.4 Overall Air Quality Impacts

Overall, it is concluded the Proposed Development would not have a significant effect on air quality and there are no air quality constraints to the Proposed Development. Therefore, the Site is considered suitable for the Proposed Development from an air quality perspective.

9.2.3 Noise Pollution

9.2.3.1 Noise Impact Assessment

A Noise Impact Assessment was produced by Ramboll in March 2026. This confirmed that noise levels on site were typically dominated by road traffic noise from the M27 and the Windhover Roundabout. In addition, plant noise emission limits have been set for existing and future noise sensitive receptors based on the measured background noise levels during both the day and night-time.

The minimum façade, glazing and ventilation requirements to meet BS8233:2014 internal ambient noise level requirements have been determined. In practice, thermal, health and safety and security requirements will mean that the acoustic performance will not be a significant consideration in the design of the façade.

No significant noise and vibration effects are predicted as part of the construction and operational phases of the Proposed Development. As such, additional mitigation is not proposed.

9.2.4 Light Pollution

The external lighting used by buildings can have a detrimental impact on the use and enjoyment of neighbouring properties, and on the mental and physical wellbeing of individuals in them. It also has a significant and often detrimental impact on local wildlife. As outlined in the Lighting Assessment produced by Ramboll in March 2026, the impact of the Proposed Development on surrounding light sensitive receptors has been reviewed to ensure that there would be no discernible effect to current baseline conditions.

This report confirms that the proposed lighting design shows that the Proposed Development can achieve the required average lighting levels and uniformity across different areas whilst also mitigating for obtrusive light for the surrounding areas, ecology and environmental requirements. Guidance from best practice standards will be incorporated within the lighting design to ensure potential negative impacts are reduced, without limiting functionality of the lighting design.

9.2.4.1 Local Receptors

Using the proposed luminaires, the development lighting is not expected to have a significant impact on local receptors, and external lighting will be designed to limit glare and sky glow effect. Neighbourhood properties along the southwest and eastern boundary have been identified and assessed as sensitive receptors. Reviews indicate that the proposed luminaires will result in no impact from the Proposed Development's lighting on these receptors. The proposed design concept also shows that light can be limited on the vertical plane and can be lit to a maximum of 5 lux.

9.2.4.2 Ecological Receptors

The levels of light spill from the proposed lighting have been predicted for the surrounding ecological receptors. The northern areas of the Site, where wildlife has been observed, will remain unlit as part of the Site's development, ensuring no impact from the proposed lighting.

Additionally, under the proposed scheme, all trees, hedges, and boundary shrub to the north will be fully retained and safeguarded under the development proposals. The distance from the ecological receptors and the development area further reduces sensitivity and minimises the impact on these receptor type.

The following mitigation measures have been applied to the lighting design for minimising obtrusive light and impact (daytime and night-time) on the environment and ecology:

- The use of luminaires with zero upward light output at and above the horizontal plane to reduce glare and sky glow on neighbouring properties, and into residential windows; and
- The use of optimal light distributions for their specific location and orientation to focus on the task areas only.
- No luminaires proposed to be positioned on the boundary line behind the building.

There are a number of best practice standards which can be implemented into the design of the external lighting strategy which reduce the negative impacts without limiting their functionality. In accordance with the BREEAM assessment, the following measures will be implemented with regards to the external lighting design:

- The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 2011;
- All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00;

- If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system will comply with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes; and
- Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.

9.3 Conclusion

The Proposal has taken into consideration air, noise and light pollution, as well as considering any pre-existing contamination from the application Site.

Sources of pollution have been considered for both the construction and operational stages of the development to ensure any potential impact on the environment, as well as to existing third parties and biodiversity, is reduced as far as practicable.

A Noise Impact Assessment has demonstrated that no significant noise and vibration effects are predicted as part of the construction and operational phases of the Proposed Development, and additional mitigation measures have not been proposed.

10. Health and Wellbeing

10.1 Introduction

It is widely accepted that the environment in which we live can have a huge impact on our health, wellbeing, safety and overall comfort.

Visual comfort is an important part of this and in particular, productivity and mental wellbeing within a building can be increased where glare, views, daylight and lighting levels have been carefully considered.

Research has also shown that extreme temperatures can have an immediate effect on health and wellbeing through increased risk of illness. Effectively controlling and regulating temperature is therefore crucial in maintaining a healthy and comfortable environment.

Crime and the fear of crime also have a major impact on quality of life, and the wellbeing of building occupants. Enabling building occupants to feel safe and secure is therefore essential to successful, sustainable communities.

Green space provides benefits not only to the natural environment, but to building occupants. Introducing biophilic design elements to a building supports human interaction with nature which can lead to the promotion of a healthy lifestyle through the promotion of exercise, and subsequently reducing stress levels.

10.2 Sustainability Considerations

10.2.1 Thermal Comfort

Research has shown that extreme temperatures are associated with an increased risk of illness and have an immediate effect on health and wellbeing. It is also recognised that measures taken to improve energy efficiency, such as increased airtightness, thermal insulation levels etc. have the potential to result in more instances of overheating in summer. With a changing climate, both under and overheating are an increasing problem in buildings. Effective temperature regulation is therefore an integral part of ensuring a healthy and comfortable internal environment. Achieving thermal comfort is dependent on the building being designed to allow for seasonal changes and occupier preferences.

As part of the BREEAM assessment, thermal modelling will be carried out for the development in line with CIBSE TM52. This will ensure the summer and winter temperature ranges meet the industry standards. Furthermore, to ensure future temperatures (which are expected throughout the lifetime of the building), are considered, this thermal modelling will ensure an allowance for climate change.

Passive measures will be incorporated where possible within the development's design to prevent overheating. Current proposals include the following measures:

- The general internal layout is designed to provide good daylight access for the majority of occupied spaces;
- High performing engineered façade with optimised U-values (better than) the standards set out in Part L (Volume 2) of the 2021 Building Regulations have been proposed;
- Appropriate proportion of glazing and a glazing g-value carefully selected to minimise solar gain in the summer, but also to maximise solar gain in winter;
- External shading elements, and recessed windows are proposed to decrease overheating in summertime; and,
- Air Tightness target of 3 m³/hr/m² @ 50Pa or less.

10.2.2 Acoustics

To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users, the development will be designed to achieve sound insulation, indoor ambient noise levels, and room acoustics that comply with the design ranges given in BS 8233:2014. The minimum façade, glazing and ventilation requirements to meet BS8233:2014 internal ambient noise level requirements have been determined. In practice, thermal, health and safety and security requirements will mean that the acoustic performance will not be a significant consideration in the design of the façade.

In addition, a programme of pre-completion acoustic testing will be carried out during construction to ensure the design measures achieve their desired aim. The purpose of this design standard is to minimise disturbances to building occupants from noise transition between spaces and enhance productivity by providing appropriate acoustic environment for the different functions of various buildings and spaces.

As per the Noise Impact Assessment produced by Ramboll in March 2026, no significant noise and vibration effects are predicted as part of the operational phases of the Proposed Development. As such, additional mitigation is not proposed.

10.2.3 Safety, Security and Accessibility

The development will ensure accessibility for all intended users. The key access provisions therefore include:

- Incorporation of the principles for inclusive design where possible;
- Accessible cycle parking space for building users; and,
- Wheelchair-accessible sanitary facilities.

As part of the BREEAM assessment, a Suitably Qualified Security Specialist will be appointed to conduct an evidence-based Security Needs Assessment, to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development. Following this exercise, the design team will implement security controls and recommendations as identified by the Suitably Qualified Security Specialist. In addition, the Proposed Development will seek to comply with the principles of Secured by Design where feasible.

10.2.4 Outside Space

The provision of green recreational space provides numerous benefits to building occupants, and the building's value. It brings an element of biophilia to a building by supporting human interaction with the natural environment. Further to this, green recreational space can promote healthy lifestyles by promoting exercise and reducing stress levels. External landscaping elements have therefore been incorporated within the Proposal, as well as an area of outdoor space for building users to provide users with an external amenity area. This outdoor space will be of an appropriate size to provide amenity for the predicted number of building users during coffee or lunch breaks to gather, socialise, relax and connect with the natural environment. This will be strategically located to ensure it is accessible to all building users and to avoid areas that will have disturbances from noise sources.

10.3 Conclusion

In order to improve the health and wellbeing of the individuals using in the development, the design has considered and incorporated measures for each of the following:

- Thermal comfort;
- Acoustics;
- Security;
- Accessibility; and,

- Outside space.

The safety, security and accessibility of the Site, and access to the natural environment have also been considered. These will ensure that the development has a positive impact on the health and wellbeing of those using and impacted by the development and seek to promote a healthy and positive working environment.

11. Land Use & Ecology

11.1 Introduction

Land is a finite resource, and is required by all aspects of every-day life, i.e. housing, agriculture, parks etc. Therefore, one of the most widely agreed land-use planning principles is encouraging the effective use of land by reusing land that has been previously developed (brownfield land).

Biodiversity can be defined as the variety of species of plants, animals and microorganisms that exist on the earth. A healthy biodiversity could provide a number of natural services for everyone, ranging from ecosystem services such as pollution breakdown and soil formation, to biological resources such as providing food, medicinal resources and pharmaceutical drugs, wood products and social benefits such as research and education, recreation and tourism and cultural values.

11.2 Sustainability Considerations

11.2.1 Ecology

11.2.1.1 Existing Site

The Ecological Survey and Biodiversity Net Gain Technical Note produced for the development in March 2026 by Aspect Ecology confirms that the pre-existing site (red line boundary) is comprised of two connected grassland fields, with a patch of tall ruderals and a wet flush along the eastern edge of the Site and an area of hardstanding and barns to the south of the Site. These habitats are not of elevated conservation interest.

As outlined in the Ecological Appraisal produced in March 2026 by Aspect Ecology, identified features of ecological importance include native hedgerows and associated trees, as well as offsite woodland. Aside from short lengths of hedgerow to be potentially removed for access, these important features will be fully retained under the proposals and will be protected during construction. Hedgerow losses will be compensated for by new hedgerow planting. No irreplaceable habitats are considered to be present within the Proposed Development Site.

11.2.1.2 Invasive species

Extensive stands of Japanese Knotweed were found to be present within the existing woodland. As an invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981, control measures should be put in place to prevent the spread of Japanese Knotweed if this is identified within or immediately adjacent to the Proposed Development area.

11.2.1.3 Designated Sites

No statutory or non-statutory nature conservation designations are present within the Site. Whilst it is confirmed that Netley Common (LNR and SINC) is recorded as being immediately in close proximity to the Site, it is not considered that designations within the surrounding area are likely to be adversely affected by the proposals.

The Site sits within an Impact Risk Zone (IRZ) in relation to the complex of Solent European Sites, which are susceptible to nutrient enrichment. Being within the impact risk zone, it is expected that mitigation will be required to mitigate for the potential net increase in nutrients entering the Solent from urban runoff and sewage treatment for the development's life cycle so as to prevent any further damage to the protected areas of the coast caused by nutrient loading from development.

11.2.1.4 Protected Species

The habitats within the Site support several protected species, including species protected under both national and European legislation (bats and reptiles). During the survey work, general

observations were made of any faunal use of the Site with particular attention paid to the potential presence of protected or notable species, the results of which are set out below. Specific survey work was undertaken in respect of badgers, bats, dormouse and reptiles.

Bats

The buildings and structures present within the Site offer negligible roosting opportunities for bats and no evidence of roosting bats was recorded. No further surveys are required. The majority of the hedgerows and trees within the Site are to be retained under the proposals, whilst new tree, hedgerow and shrub planting will improve connectivity through the Site and increase the amount of habitat suitable for foraging and commuting bats. Connectivity between off-site habitats will be improved by the landscape proposals.

Badgers

Evidence of badger foraging activity was found at the boundary of the Site during the Phase 1 survey, but no sett was present in the Site or its immediate surroundings. The Site, and the off-site woodland in particular, is likely to be used sporadically by foraging badgers. On this basis, and considering that the off-site woodland will be retained and enhanced by new planting within the Site, it is considered highly unlikely that badgers will be affected by the proposals.

Dormouse

Surveys undertaken from July to September 2023 recorded no evidence of dormouse within the Site. Therefore the risk of affecting this species is negligible.

Other Mammals

Habitat losses arising from the proposals are not considered likely to have significant effects on fox and hedgehog. For hedgehog, habitat losses would be offset by the provision of new suitable habitats. Precautionary safeguards are recommended to minimise the risk of harm to animals that may be present during works.

Great Crested Newt

No ponds are present in the Site or within 250m. Features within the Site are not suitable to support breeding Great Crested Newt and barriers are present around the Site which would prevent this species from being present within suitable terrestrial habitats. As such, it is concluded that Great Crested Newt is not at risk of adverse effects from the proposals and no further work is required in respect of this species.

Reptiles

Surveys in 2023 found a low population of Slow Worm (peak count 2 individuals). This does not pose a significant constraint. On the basis of the survey results and the low reptile populations recorded, it is considered that these species can be appropriately safeguarded by a habitat manipulation exercise.

Birds

Most of the birds recorded at the Site do not have special conservation status, although House Sparrow is included on the Red list and is also a Priority Species. The habitats present are however common in the surrounding area and there is no evidence to suggest the Site is of elevated value at a local level for this species, which in any case, remains common throughout Great Britain.

Invertebrates

Habitats within the Site are unlikely to support an important invertebrate assemblage and therefore the proposals are unlikely to result in harm to protected, rare or notable invertebrate populations.

11.2.1.5 Mitigation Measures

Based on the findings of the Ecological Assessment, the principal contractor will be required to implement the following measures to mitigate impacts to existing site ecology:

- All hedgerows and trees to be retained within the Proposed Development should be protected during construction in line with standard arboricultural best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturist.
- Precautionary bat check survey should be conducted prior to demolition. A watching brief should also be maintained by contractors in regard to the other buildings, with a suitably qualified ecologist contacted for further advice if any evidence of bats is recorded during works.
- To safeguard reptiles, a habitat manipulation exercise should be undertaken.
- Any clearance of existing vegetation will be undertaken outside of bird breeding season (March to August inclusive). Where this is not possible, this will only proceed following the completion of a nesting bird check undertaken by an experienced ecologist.
- Grass clearance works will only be undertaken during the reptile active season (March / April – October inclusive) and during suitable weather conditions ($>10^{\circ}\text{C}$ and avoiding periods of heavy rain). These will be undertaken under the supervision of an ecologist.
- Prior to any site clearance, an updated walkover survey of the Site will be undertaken in order to fine tune any specific mitigation requirements.
- Lighting at the Site will be designed in a manner that is sensitive to species such as bats, limiting unnecessary light pollution and light spill within the Site.
- All existing trees, hedgerows, and scrub considered to have potential to support roosting and foraging birds and bats will be fully retained and safeguarded through the use of temporary protective fencing as required.
- Best practice construction methods will be employed to minimise the impacts of the proposed works, including implementing best practice dust and pollution management practices.
- Excavations will not be left open overnight. Where this is not possible, excavations will be covered, or mammal ramps will be installed to ensure that no mammals become entrapped.
- Where soil bunds (or similar) cannot be avoided, these will be regularly inspected for areas of digging. New excavations will be filled in before a sett is excavated, wherever possible.
- A Biodiversity Champion will be appointed to oversee the construction phase, ensuring all potentially environmentally detrimental activities are minimised. The Biodiversity Champion will ensure the workforce is trained on environmental issues through Toolbox Talks to increase awareness of potential impacts through the construction process.
- It is recommended that an appropriate buffer in the form of new planting is provided within the red line site boundary, adjacent to the areas of adjacent deciduous woodland to reduce the risk of any adverse impacts.

All relevant legislation relating to the protection and enhancement of biodiversity will be adhered to throughout the design and construction process. All requirements for ecological protection will be included within a CEMP for the development.

11.2.1.6 Proposed Enhancement Measures

The design team is committed to enhancing the existing biodiversity on site in line with local and national policy requirements. As such, a suitably qualified ecologist will be appointed to provide advice on the following issues:

- Effective implementation of ecological improvements.
- Confirm all applicable UK and EU legislation relating to the protection and enhancement of ecology is complied with throughout the design and construction phases.

In addition, the following landscaping measures will be implemented:

- Scrub planting will be provided to enhance the landscape heathland characteristics, and to provide additional buffer zones between the Proposed Development and the surrounding landscape.
- Areas of amenity grassland to be created near to the Proposed Development of an appropriate species-rich mix.
- Native hedgerow will be created along the boundaries of green space areas and around areas of built development.
- The proposals present an opportunity to enhance retained habitats through supplementary planting with native species to stock up hedgerow gaps.
- Wetland Features. The opportunity exists under the proposals to create new wetland habitats as part of the Sustainable Drainage System (SUDS). Where practical these should be designed in accordance with ecological principles
- New bird and bat boxes will be provided, including a range of box types to support different species.
- A proportion of dead wood arising from vegetation clearance works should be retained within the Site in wood piles located within areas of new planting, new wetland habitats or areas of wildflower grassland
- It is recommended that bee bricks are incorporated within the Proposed Development thereby increasing nesting opportunities for declining populations of non-swarming solitary bee populations.

11.2.1.7 Trees

SJA Trees produced a tree survey of the site in March 2026. This concluded that the arboricultural impact of the scheme is of negligible magnitude.

As a result of the proposals, no mature trees, no category 'A' or 'B' trees, and no trees of high landscape or biodiversity value are to be removed. In addition, none of the main arboricultural features of the site are to be removed.

In total, 5no. individual trees, 1no. small group of trees, and a small partial removal of another group of trees would be removed to facilitate the development. This is however considered only a very minor alteration to the overall arboricultural character of the Site, and local landscape.

Where incursions into the Root Protection Areas of retained trees will be necessary, these will be subject to implementation of the measures recommended on the Tree Protection Plan, and no significant or long-term damage to root systems or rooting environments will occur.

Whilst a few trees would need to be removed to facilitate the proposals, a significant and diverse tree planting and landscaping scheme is proposed that will mitigate the proposed removals, improve the age class balance of the trees on site, enhance the local landscape, and re-establish a framework for the ongoing and long-term character of the Site.

11.2.1.8 Biodiversity Net Gain

The Proposed Development will provide new high quality on-site habitats and provide off-site habitats that reinforce and add to existing biodiversity. In addition, a large area of land to the west of the Site is, just beyond the site boundary is proposed for scrubland/woodland planting. This would include planting of native scrub and tree species and will benefit biodiversity in the immediate context and support existing woodland ecosystems.

In order to quantify the changes in habitat value associated with the proposals and ensure that appropriate offsetting is provided, the proposals have been assessed using the BNG metric.

As outlined in the Biodiversity Net Gain Assessment produced by Aspect Ecology in March 2026, the anticipated change in biodiversity value as a result of the proposals has been calculated using the Statutory Biodiversity Metric. When considering the current proposals (incorporating the offsite biodiversity enhancements), the Statutory Biodiversity Metric calculates that the development will likely deliver a substantial net gain of 57.90% for habitat and 425.21% for hedgerow units, exceeding the 10% biodiversity Net Gain required by the relevant policy requirements. This demonstrates a clear, quantifiable increase in habitat value associated with the proposals.

11.3 Conclusion

The ambition for the Proposal is to protect and enhance the existing ecology and biodiversity of the application site in line with local and national policy requirements. To this end, measures will be implemented throughout the design and construction periods to ensure all relevant UK and EU legislation is adhered to, and to ensure biodiversity protection and enhancement measures are implemented in line with best practice requirements.

The majority of the habitats within the existing application site generally hold limited ecological value. The proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, the proposals would not result in significant harm to biodiversity.

On this basis it is considered that the proposal would more than offset losses required to facilitate the proposals, safeguarding protected species and delivering a 57.90% for habitat and 425.21% for hedgerow increases in Biodiversity Net Gain. The proposals therefore fully accord with current legislation and policy pertinent to ecology and nature conservation.

12. Transport

12.1 Introduction

Transport relates to around a quarter of UK greenhouse gas emissions and affects air quality and noise. The UK government have therefore committed to reducing emissions by promoting public transport choices, supporting the market for innovative forms of transport, and encouraging the move to cleaner and lower carbon vehicles.

12.2 Sustainability Considerations

12.2.1 Pedestrian and Cyclist Accessibility

As outlined in the Transport Assessment produced by Motion in March 2026, the Site has good pedestrian access, with continuous lit footways are provided along the southern and eastern boundaries of the Site. Signalised pedestrian crossings are provided on the south-eastern A3024 arm and Le Marechal Avenue arm of the A3024/Le Marechal Avenue junction, facilitating safe pedestrian movement between the Site and footways to the south of the A3024 carriageway. Footways continue through the nearby Tesco car park, facilitating safe pedestrian access between the Site and nearest supermarket, which also contains additional amenities including ATM, pharmacy and postal facilities.

In the vicinity of the Site, a shared footway/cycleway is provided adjacent to the northbound carriageway of the A3024 Bursledon Road carriageway, accessed via a shared pedestrian and cycle signalised crossing immediately south of the Site. Shared footway/cycleways continue north and south from the Site, to facilitate safe cycle access between the Site and local residential areas within Southampton and to the north of Bursledon. Cycle access within the Site will be via shared use pedestrian & cycle paths. Cycle parking will be provided on site for each of the two units. This will be in the form of covered, secure cycle parking areas which will be conveniently located for employees at each site.

Pedestrian and cycle access into each site parcel will link to the existing foot and cycle network, with a signalised crossing provided across the A3024 to link to the existing shared foot/cycle network along the southern side of the A3024 carriageway. Pedestrian access will be provided to each unit from site boundary to building entrances, and pedestrian access to HGV only areas and yards will be controlled as part of the Site security/fencing strategy. Pedestrian drop off points are located adjacent to main entrance concourses, in locations that do not carry HGV traffic.

12.2.2 Public Transport

12.2.2.1 Bus Accessibility

The closest bus stops to the Site are located on Jurd Way, approximately 840 metres and 920 metres walk to the south of the Site for northbound and southbound services respectively. Both stops are provided with a pole, flag, timetable information, shelter and seating and are served by services (X4 and X5) which provide access to Southampton Central, Bursledon Station and Portsmouth The Hard Interchange bus and coach station.

A summary of the available bus services are summarised in Table 9.

Table 9: Existing Bus Services

Service	Route	Frequency		
		Mon - Fri	Saturday	Sunday
X4	Southampton Central – West Quay – Woolston Bridge – Sholing – Old Netley – Lowford – Bursledon Station – Sarisbury – Locks Heath – Titchfield Common – Fareham Station – Wallington – Portchester – Paulsgrove – Portsea – Portsmouth The Hard Interchange	1-2 per hour	1 per hour	1 per hour
X5	Southampton Central – West Quay – Woolston Bridge – Sholing – Old Netley – Lowford – Bursledon Station – Sarisbury – Warsash – Locks Heath – Titchfield Common – Titchfield – Fareham Station – Wallington – Portchester – Paulsgrove – Portsea – Portsmouth The Hard Interchange	1-2 per hour	1 per hour	1 per hour

12.2.2.2 Rail Accessibility

Bursledon railway station is situated approximately 2 km to the south of the Site, accessible within approximately 25-minutes' walk and 7-minutes cycle.

The station, operated by South Western Railway, is situated on the Portsmouth to Southampton Line with hourly services between Southampton Central and Portsmouth Harbour. Services to the west serve Hamble, Netley, Sholing, Woolston, Bitterne, St Denys and Southampton Central, with services east towards Swanwick, Fareham, Portchester, Cosham, Hilsea, Fratton, Portsmouth & Southsea and Portsmouth Harbour.

12.2.2.3 Parking

Cycle Parking

In order to encourage the use of cycling as a form of transport to the Site, cycle parking will be provided in accordance with the emerging cycle parking standards. This would require 28 spaces across the Site based on a B8 distribution centre use for short stay parking and one space per 10 staff for long stay parking. This will be in the form of covered, secure cycle parking areas which will be conveniently located for employees of each unit.

In addition, cyclist facilities, such as showers, lockers and changing spaces will be provided to the development in order to further encourage the use of cycling as a transportation method to and from the Site.

Car Parking

175 car parking spaces will be provided to the Proposed Development, in addition to 17 HGV parking spaces (11 serving the first unit, and 6 serving the second unit). Given the site layout for a commercial warehousing/distribution type use, the proposed parking provision is considered appropriate based on applying the B8 distribution centre parking standards. For the safety of users, car parking for both occupiers and visitors is segregated from heavy goods routes.

As part of the BREEAM assessment for the development, the development will be required to provide active electric vehicle (EV) charging spaces for $\geq 10\%$ of the total car parking capacity for the development. In addition, priority spaces for car sharers will be provided for $\geq 5\%$ of the total

car parking. To encourage the use of these spaces, these will be located as priority spaces nearest the development entrance used by the sharing scheme participants.

Parking is a reserved matter for the development, with the above demonstrating that the layout can provide a parking provision in line with the emerging guidance for the development quantum provided on site.

12.2.2.4 Trip Generation

As outlined in the Transport Assessment produced by Motion in March 2026, the Site could be expected to generate 1,191 additional two-way vehicular trips across a typical weekday. In view of this, mitigation measures have been identified to accommodate the development traffic on the network without any arm of the junction operating above capacity. This would result in a net benefit compared to the existing situation

12.2.3 Travel Plan

A Framework Travel Plan was produced for the Proposed Development by Motion in March 2026. This includes a mixture of 'hard' and 'soft' measures with the aim of:

- Promoting and encouraging active and sustainable travel behaviour by building users
- Reducing single vehicle occupancy trips and the traffic impacts of the development.

'Hard' measures include the provision of facilities such as safe and secure cycle parking, with 'soft' measures including the following recommended measures:

- Provision of walking and cycling maps to building users;
- Promoting events including 'National Walking Month';
- Providing details of local independent bicycle businesses offering repair services;
- Promoting cycle training;
- Providing a 'Cycle to Work' scheme for employees;
- Actively promoting the use of local bus and rail services;
- Providing details of local public transport services (bus and rail) within a building user travel information pack; and,
- Encouraging car sharing among building users through the promotion of the LiftShare website and, if demand is sufficient, a site-based car sharing database.

Through these measures, it is hoped to achieve a 10% decrease in single occupancy vehicle trips, as well as an increase in the use of active and/or sustainable travel modes.

The Travel Plan will be finalised and agreed prior to the occupation of the development, and a Travel Plan Coordinator (TPC) will be appointed prior to the first occupation of the development. This individual will be responsible for overseeing the management, development, implementation, monitoring and review of the Travel Plan.

12.3 Conclusion

The application site has good accessibility to the wider public transport network and local facilities and services. There are good opportunities for day-to-day journeys to be made by walking, cycling and public transport. Facilities in both Southampton and the North of Bursledon are within a comfortable walking or cycling distance, as is a choice of local amenities.

175 car parking spaces have been proposed for the development, including $\geq 10\%$ as electric vehicle charging spaces and 5% designated as car share spaces. It is not considered that the anticipated trip generation for the development will have an adverse effect on the existing road network. Sufficient cycle storage spaces have been provided for the predicted building users, and cyclist facilities such as showers, locker space will be provided within the development design. In

addition, a Framework Travel Plan has been developed to oversee a range of sustainable transport initiatives.

Through the measures considered, the Site provides a realistic choice in travel modes to cater for a number of daily journeys, therefore reducing the overall number of car journeys associated with the development as well as potential future staff reliance on the private car. It is hoped that this will have the effect of reducing associated congestion and CO₂ emissions over the life of the development, as well as reducing the development users' carbon footprint and associated negative environmental impacts, thereby improving local air quality.

13. Climate Change Adaptation

13.1 Introduction

Annual average UK temperature was 0.9°C higher during the period 2005-2014 compared with 1961-1990. Moreover, sea levels around the UK have risen by 15-20 centimetres since 1900. These figures are forecast to continue to change as a result of climate change. At the same time, there are upward trends in rainfall across the UK. Higher levels of winter rainfall have been experienced often in increasingly heavy rainfall events leading to more flooding and damage to buildings and infrastructure. These patterns are consistent with projections of more and heavier rainfall for the UK in a warmer global atmosphere.

These changes increase health and safety risks to people and the built environment, increasing costs and disruption for repair and adaptation. The building stock will largely remain as it currently is for the next 50 to 60 years, given the relatively low levels of replacement that are likely to occur.

Therefore, there is a need for strategies to mitigate the impact of these events on our building stock overall and in particular to ensure that new buildings are designed and constructed to minimise future risks while avoiding over specification and resource use in the meantime.

13.2 Sustainability Considerations

13.2.1 Climate Adaptation

As discussed in Section 7, a climate change adaptation strategy appraisal will be completed as part of the BREEAM assessment for the development. This will identify the impact of extreme weather conditions arising from climate change on the building over its expected life cycle.

Among the measures considered, this will assess strategies to mitigate against the risks of future warmer and wetter weather, including the use of external shading, green infrastructure and building services capacity.

In addition, exposed elements of a building or landscaping are at risk of damage through impact of a changing environment or wear and tear. This can result in significant and unnecessary materials use and waste generation across the life of a building. This will be minimised by risk areas being identified and designed out, and suitable protection measures being provided.

In line with the BREEAM assessment for the development, a passive design analysis has been completed for the development to identify opportunities for the implementation of passive design measures. This has been undertaken with the aim of reducing the regulated carbon dioxide (CO₂-eq) emissions as a result. Currently, the following measures are being considered to reduce energy demand at source:

- The general internal layout is designed to provide good daylight access for the majority of occupied spaces;
- High performing engineered façade with optimised U-values (better than) the standards set out in Part L (Volume 2) of the 2021 Building Regulations have been proposed;
- Appropriate proportion of glazing and a glazing g-value carefully selected to minimise solar gain in the summer, but also to maximise solar gain in winter;
- External shading elements, and recessed windows are proposed to decrease overheating in summertime; and,
- Air Tightness target of 3 m³/hr/m² @ 50Pa or less.

13.2.1.1 Adaptability

As discussed in Section 7, designing a space that is truly flexible will extend the building lifespan and extract the full potential of materials that make these elements. By considering building adaptability and also future disassembly early, this allows for easy material separation and reuse. This includes exposed and reversible connections, layer independence and standardisation which can facilitate disassembly.

As part of the BREEAM assessment for the development, a study to explore the ease of disassembly and the functional adaptation potential will be completed, with the aim of incorporating recommendations into the design of the building.

13.2.1.2 Thermal Comfort

As discussed in Section 9, as part of the BREEAM assessment for the scheme, thermal modelling will be carried out to ensure the summer and winter temperature ranges meet the industry standards. Furthermore, to ensure future temperatures (which are expected throughout the lifetime of the building), are considered. This thermal modelling will ensure an allowance for climate change. Current proposals to maximise thermal comfort include the following measures:

- Low g-values for all glazing will further limit solar heat gains (where appropriate).
- Low fabric air permeability will reduce heat gain from outdoor air in summer.
- Blinds will be provided where possible to minimise solar heat gains and to minimise glare.
- Internal heat gains will be minimised where possible, through integrating energy efficient electrical components and high efficiency LED lighting.

13.2.1.3 Flood Risk

As outlined in Section 6 and the Surface Water Drainage Strategy produced by Jubb Consulting Engineers Ltd. in March 2026, the surface water drainage network for the scheme has been modelled to not flood for the 1 in 100 year plus 40% climate change storm events.

13.3 Conclusion

The Proposal is incorporating measures into the design which allow for climate resilience, adaptability and a changing thermal comfort criterion.

A climate change adaption strategy will be developed for the development, and the design team will investigate measures to improve resiliency of the development. In addition, the ease of disassembly and building functional adaptation will be explored. In order to ensure the development is set up to deal with the demands of a future climate, a passive design analysis will be undertaken for the development, as well as thermal modelling.

14. Environmental Assessment

14.1 Introduction

BREEAM is the world’s leading sustainability assessment method for non-residential buildings. The scheme recognises and reflects the value in higher performing assets across the built environment lifecycle. BREEAM does this through third party certification of an asset’s environmental, social and economic sustainability performance, using standards developed by the Building Research Establishment. This means BREEAM rated developments are more sustainable environments that enhance the well-being of the people who live and work in them, help protect natural resources and make for more attractive property investments. BREEAM is a holistic approach to sustainability and covers the following categories:

BREEAM is a holistic approach to sustainability and covers the following categories:

- Management;
- Health & Wellbeing;
- Energy;
- Transport;
- Water;
- Materials;
- Land use & Ecology;
- Pollution; and
- Innovation.

14.2 Sustainability considerations

A BREEAM pre-assessment has been completed for the development by Ramboll in March 2026, demonstrating that a BREEAM ‘Excellent’ rating is considered achievable for the industrial buildings within the scheme. A summary of the proposed scores and ratings can be found in Table 10 below. Further details of the BREEAM strategy can be found in the BREEAM pre-assessment which accompanies the planning application and is contained in Appendix 3.

Table 10: BREEAM Score Summary

	Overall targeted score	Minimum score for ‘Excellent’ Rating	Buffer over the minimum score
Targeted Score	71.22%	70%	1.22%

The targeted credits for the industrial assessment can be seen overleaf in Figure 3.

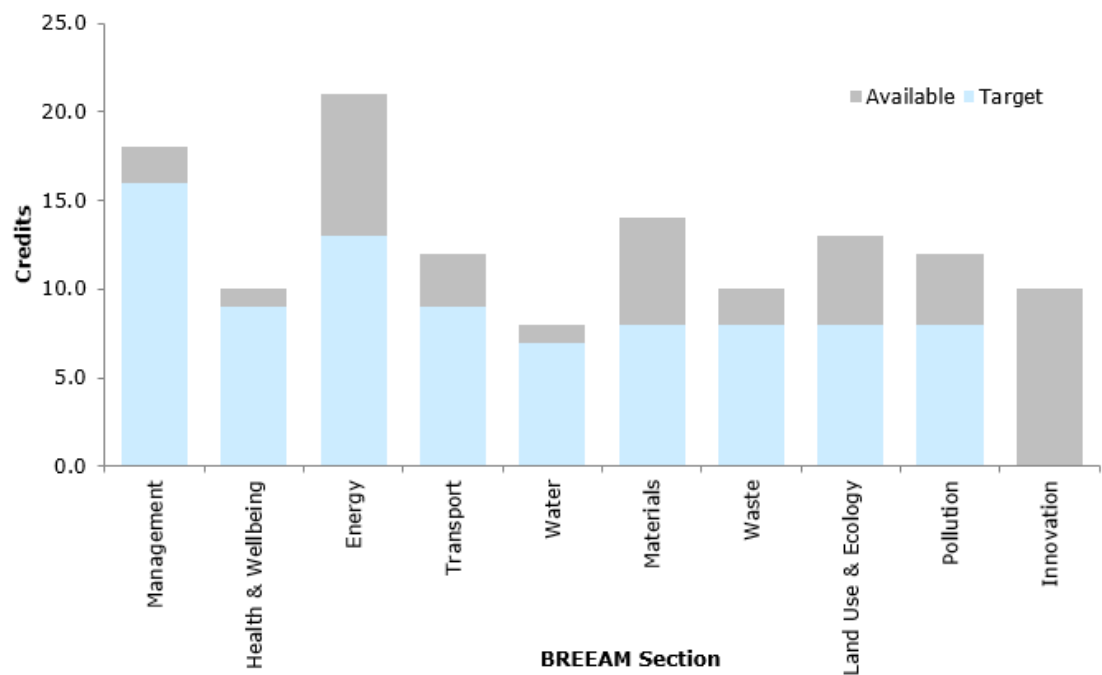
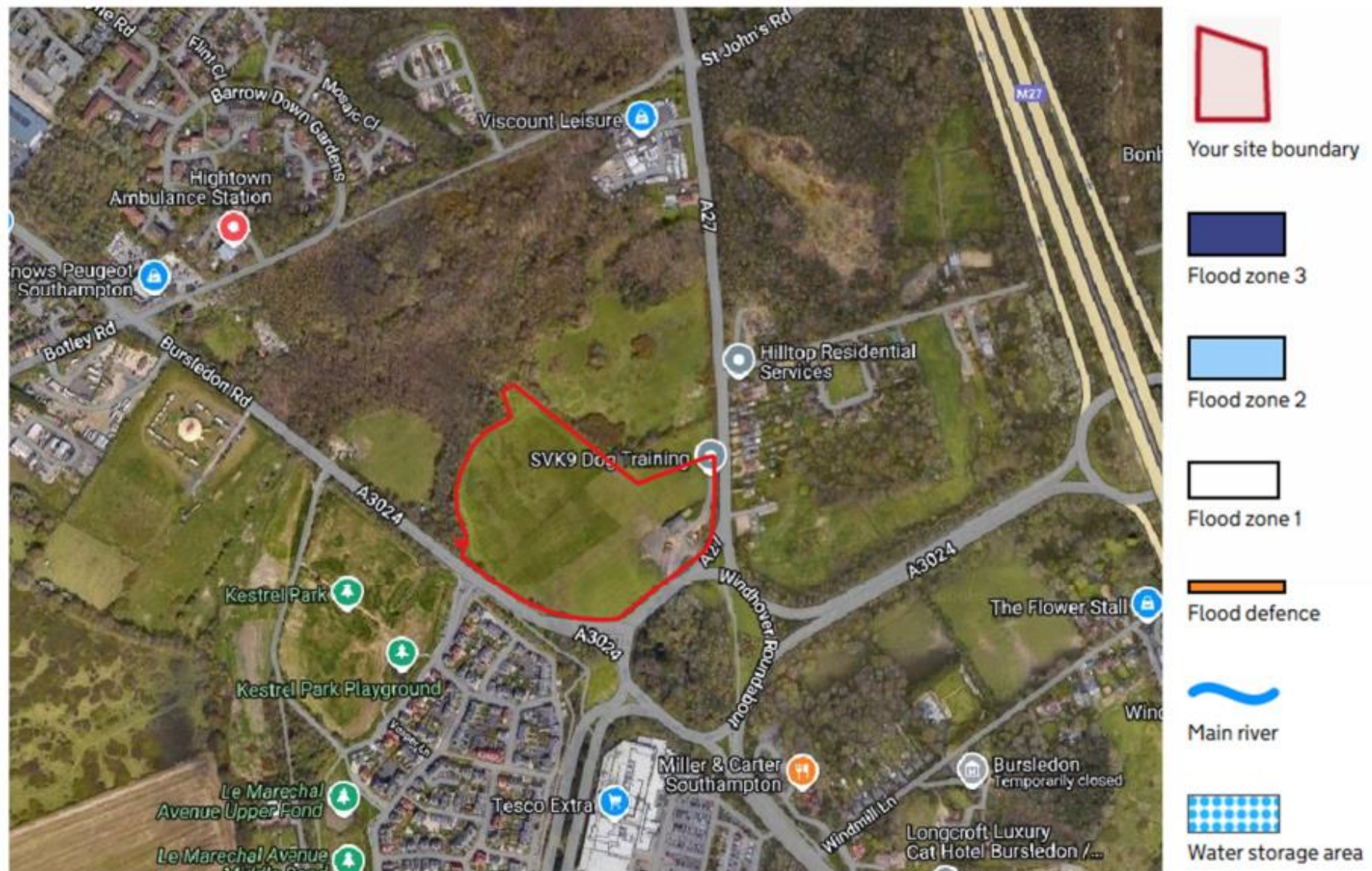


Figure 3: BREEAM credit performance

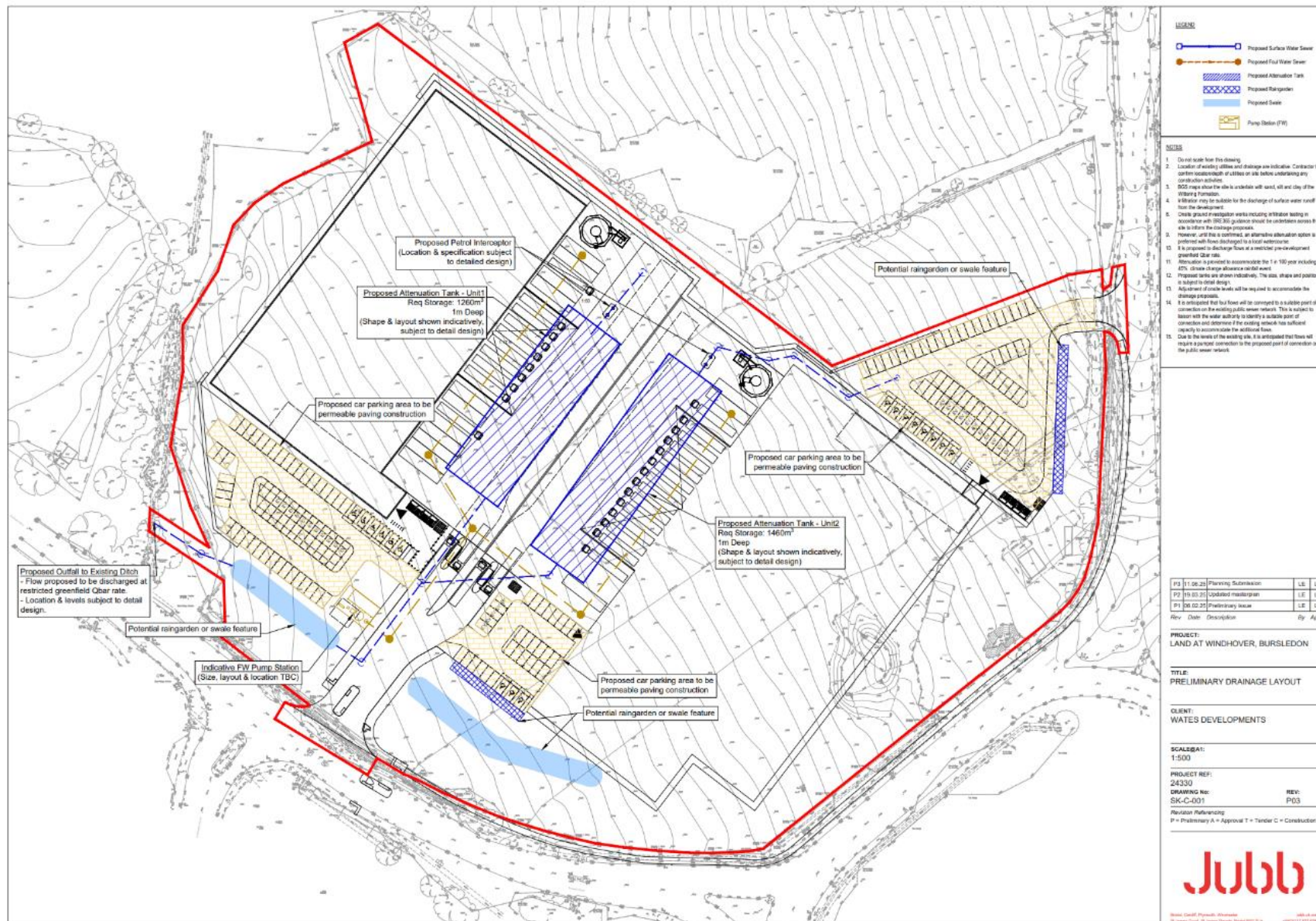
14.3 Conclusion

A BREEAM pre-assessment has been undertaken for the proposed industrial buildings. This has demonstrated that a BREEAM 'Excellent' rating is achievable for the development, complying with the local policy requirements.

15. Appendix 1 - Environment Agency Flood Map



16. Appendix 2 – Preliminary Drainage Layout



17. Appendix 3 – BREEAM Pre-assessment

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LAND ADJACENT TO WINDHOVER ROUNDABOUT, BURSLEDON BREEAM PRE-ASSESSMENT

LAND ADJACENT TO WINDHOVER ROUNDABOUT, BURSLEDON BREEAM PRE-ASSESSMENT

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EXECUTIVE SUMMARY

This report provides a BREEAM New Construction V6.1 pre-assessment for the Land adjacent to Windhover Roundabout, Bursledon. This BREEAM pre-assessment has been prepared to support the outline planning application and to determine the feasibility of achieving a BREEAM rating for the development.

In line with Client aspirations, the BREEAM target for the development is to achieve a minimum BREEAM 'Excellent' rating.

This report details the outcomes of a pre-assessment workshop which was carried out with the design team on 13 February 2025, as well as through subsequent discussions. The infrastructure associated with the Proposed Development was assessed as shell and core units under the 'Industrial' building type, using the 'Similar Buildings' approach under the BREEAM New Construction V6.1 scheme.

The initial pre-assessment review indicates that an 'Excellent' rating is achievable for the Site and a summary of the results is provided in Table 1 below and Figure 1.



Table 1: BREEAM Score Summary

	Overall targeted score	Minimum score for 'Excellent' Rating	Buffer over the minimum score
Targeted Score	71.22%	70%	1.22%
Potential Score	81.63%	70%	11.63%

Figure 1: Targeted and potential scores for the Land at Windhover, Bursledon assessment

An overview of the targeted credits that require actions to be carried out during RIBA Stages 1 and 2 has been included in **Appendix 1**, to ensure that the appropriate requirements are actioned during the early stages of the design process. **Appendix 2** provides a detailed summary of the credits that have been selected to achieve the targeted scores and additional potential credits that may be achieved as the design progresses.

1. INTRODUCTION

1.1 Site location

Ramboll has been commissioned by Wates Developments Limited to carry out a BREEAM Pre-Assessment for the Land adjacent to Windhover Roundabout, Bursledon, Hants, SO31 8BN (the 'Site'), as shown in Figure 2.

The Proposed Development will be an outline planning application (all matters reserved except for access) for employment development (Use Class B2/B8) of up to 18,580 square metres together with ancillary offices (Use Class E(g)(iii)) and other ancillary buildings, structures, parking, servicing and manoeuvring areas, landscaping and sustainable urban drainage features, following demolition of existing buildings.

The Site is circa 4.63 ha (11.4 acres) and comprises predominantly undeveloped agricultural pasture land, with potential for some Made Ground to be present in limited areas of the Site. The Site takes the form of two connected grassland fields with a patch of tall ruderals and a wet flush along its eastern edge. The Site also includes a small collection of agricultural-type buildings sited on an area of hard standing within its south eastern part. Topographically the Site falls to its south-west towards Bursledon Road, and rises north-east towards West End Road.

The surrounding context is a mixture of agricultural fields, woodlands, residential and commercial development. The Site is located within the Local Authority of Eastleigh Borough Council.



Figure 2: Land adjacent to Windhover Roundabout, Bursledon Illustrative Masterplan (credit: Terence O'Rourke 2025 – 276504-TOR-XX-ZZ-DR-A-P102_Illustrative Masterplan-D)

1.2 Approach

A BREEAM pre-assessment has been carried out by a BREEAM qualified assessor and accredited professional with the involvement of the design team to set out a strategy to achieve a BREEAM 'Excellent' rating.

The New Construction V6.1 scheme has been used for the pre-assessment. The 2no. proposed industrial units have been assessed as shell and core units, under the 'Industrial' building type. 1no. assessment strategy is proposed within this report, covering both units using the 'Similar Buildings' approach. In order to be assessed in this manner, the following assumptions have been made:

The units will:

- Have the same principal function.
- Be a similar construction type and specification.
- Be developed by the same project team.

Ramboll recommends seeking to include a margin of at least 5% to minimise the risk of achieving the target rating by including contingency for design changes and potential constraints identified during the design and construction stages.

To maximise sustainable design and achieve the highest possible rating for the development, several 'potential' credits were identified by the design team to consider as the design progresses, these are identified in Appendix 2. As the current margin is below the recommended 5% level, it is recommended that the design team explore the identified 'potential' credits with the aim of boosting the target score.

2. BREEAM

2.1 What is BREEAM?

BREEAM is the Building Research Establishment's Environmental Assessment Method and is a widely used and recognised standard to describe a building's environmental performance.

The scheme aims to mitigate the life cycle impacts of buildings on the environment in a robust and cost-effective manner through integration and use of the scheme at key stages in the design and construction process. The performance of a building is quantified by individual measures and associated criteria stretching across a range of environmental issues and expressed as a single certified BREEAM rating.

A BREEAM assessment can be used to assess a building at the following life cycle stages:

- Design stage (DS) - occurs during the design development of a scheme and therefore, does not represent a building's final performance against the BREEAM criteria, as this may change as construction is undertaken. The BREEAM certificate at this stage is labelled interim.
- Post-construction stage (PCS) – occurs during the construction stage of the scheme and confirms that the building's 'as-built' performance and rating are in accordance with that certified at the Design stage. A final BREEAM certificate is issued once the post-construction stage assessment is complete.

For a specific BREEAM rating to be achieved, the minimum percentage score and the minimum standards applicable to that rating need to be met. Additional information on ratings and scoring is provided in the sections below.

2.2 BREEAM ratings

BREEAM ratings range between 'Pass' and 'Outstanding'. The rating is achieved based on the percentage score and the required minimum standards appropriate to each rating level. The ratings thresholds for BREEAM New Construction V6.1 are shown in Table 2 below.

Table 2: BREEAM rating benchmarks

BREEAM Rating	% score
Unclassified	<30
Pass	≥30
Good	≥45
Very Good	≥55
Excellent	≥70
Outstanding	≥85

2.3 BREEAM scoring

The BREEAM New Construction V6.1 credits are divided into nine issue categories addressing the different environmental impacts arising from a building's construction and fit out. These include Management, Health and Wellbeing, Energy, Transport, Water, Materials, Waste, Land Use and Ecology and Pollution. In addition, 'innovation credits' can be awarded for exemplary level performance across several issue categories.

To calculate an assessment score, the percentage of the credits achieved is calculated for each of the BREEAM categories. The percentage of credits achieved in each category is then multiplied by the corresponding environmental weighting to give the section score.

Category weightings provide a means of defining and ranking the relative impact of environmental issues. Different categories will also be weighted differently depending on whether a building is fully fitted, shell and core, shell only or meets BREEAM's definition of a simple building.

Consequently, not all credits are worth the same as can be shown in the graph in Figure 3 below. As an example, for a fully fitted building assessed under BREEAM NC v6.1, an energy credit will be worth 0.67%, whilst a credit in the management section will be worth 0.61%.

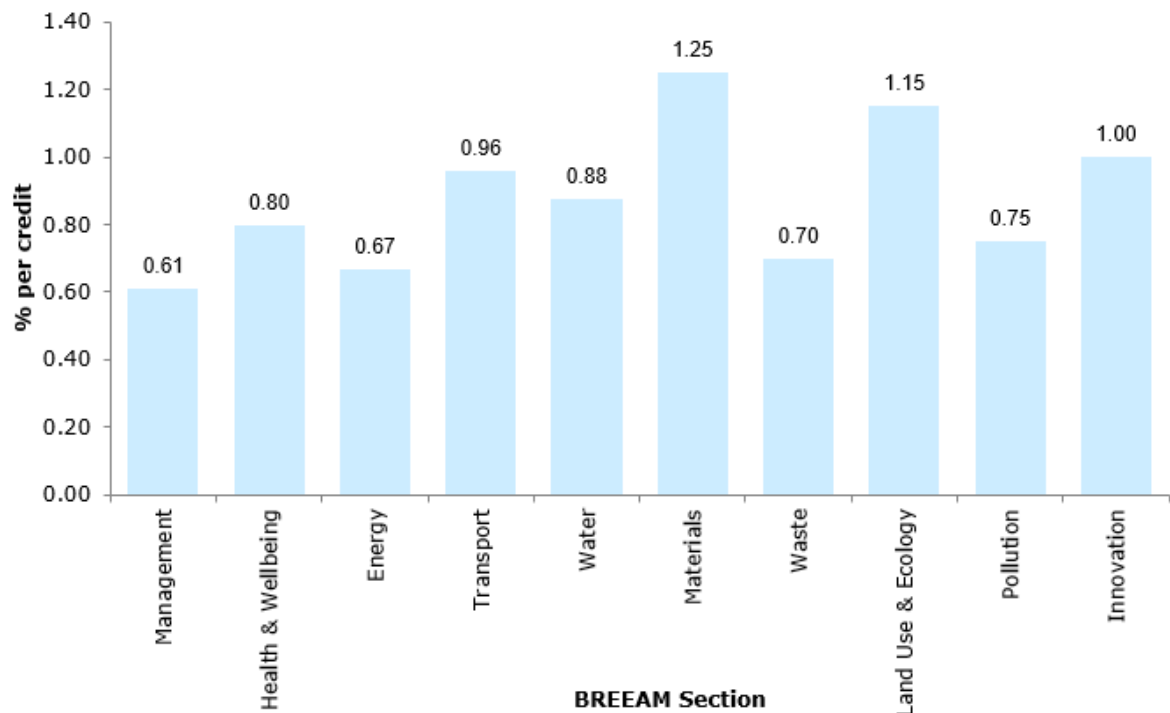


Figure 3: Section credit scores for a shell and core building under BREEAM New Construction V6.1

2.4 Minimum standards

BREEAM sets minimum standards of performance in key areas to ensure performance against fundamental environmental issues is not overlooked in pursuit of a specific rating. To achieve a particular rating, the minimum overall percentage score must be achieved as well as the minimum standards detailed in Table 3 below.

Table 3: Minimum standards by rating level for a building under BREEAM New Construction V6

BREEAM issue	Pass	Good	Very Good	Excellent	Outstanding
Man 03 Responsible construction practices	None			One credit (responsible construction management)	Two credits (responsible construction management)
Man 04 Commissioning and handover	None		One credit (commissioning-test schedule and responsibilities)		
Man 04 Commissioning and handover	None		Criterion 11 (Building User Guide)		
Man 05 Aftercare	None			One credit (commissioning-implementation)	
Ene 01 Reduction of energy use and carbon emissions	None			Four credits (Energy performance or Prediction of operational energy consumption)	Six credits (Energy performance) and four credits (Prediction of operational energy consumption)
Ene 02 Energy monitoring	None		One credit (First sub-metering credit)		
Wat 01 Water consumption	None	One credit			Two credits
Wat 02 Water monitoring	None	Criterion 1 only: Specify a water meter on the mains water supply to each building.			
Mat 03 Responsible sourcing of construction products	Criterion 1 only: 100% of timber and timber-based products used on the project are 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy				
Wst 01 Construction waste management	None				One credit
Wst 03 Operational waste	None			One credit	

3. PRE-ASSESSMENT OVERVIEW

3.1 Pre-assessment scores

The following section summarises the outcomes of the BREEAM pre-assessment workshop carried out by a qualified BREEAM assessor in collaboration with the design team on the 13 February 2025, as well as through subsequent discussions. The pre-assessment sets out a strategy for the Proposed Development to achieve a BREEAM 'Excellent' rating under the BREEAM New Construction V6.1 scheme.

All minimum standards for the BREEAM 'Excellent' rating have been targeted within the assessment strategy. The credits targeted for the Industrial buildings shown in Table 4 and Figure 4 below.

Table 4: BREEAM New Construction V6.1 Pre-assessment credit summary for the Land at Windhover, Bursledon

BREEAM Section	Credits available	Credits targeted	Potential credits	Section weighting	Targeted section score
Management	18	16	18	11.00%	9.78%
Health & Wellbeing	10	9	9	8.00%	7.20%
Energy	21	13	13	14.00%	8.67%
Transport	12	9	9	11.50%	8.63%
Water	8	7	8	7.00%	6.13%
Materials	14	8	9	17.50%	10.00%
Waste	10	8	9	7.00%	5.60%
Land Use & Ecology	13	8	12	15.00%	9.23%
Pollution	12	8	9	9.00%	6.00%
Innovation	10	0	1	10.00%	0.00%
Final Targeted Score					71.22%
Final Potential Score					81.63%
Targeted BREEAM Rating					Excellent

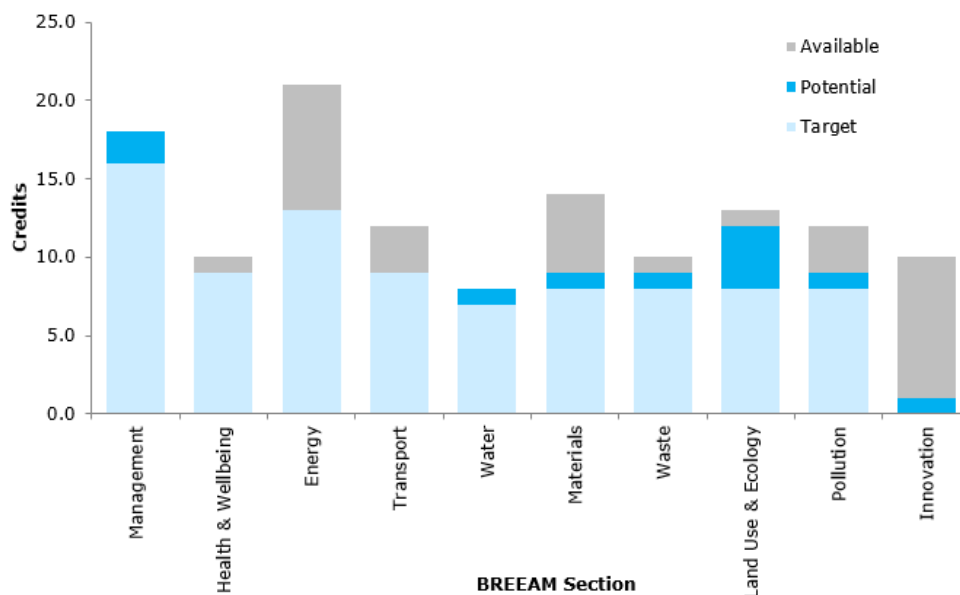


Figure 4: BREEAM credit performance for the Land at Windhover, Bursledon

The BREEAM pre-assessment results show that the Land at Windhover, Bursledon has targeted a BREEAM 'Excellent' rating, with a target score above the minimum 70% score.

3.2 Potential credits

Several potential credits have been identified by the design team to consider as the design progresses. As additional information becomes available, these will be reviewed and analysed to determine if they can be achieved to increase the targeted score.

As the margin above the 70% required for Excellent is currently below the recommended 5% level, it is recommended that the design team explore the identified 'potential' credits with the aim of boosting the target score. The potential credits are identified in the comments column in the table in Appendix 2.

3.3 Next steps

The next step in the BREEAM process is for each member of the design team to review the 'targeted' credits for the scheme, alongside any potential credits. Each member of the design team is expected to provide feedback regarding the credits under their responsibility in both the targeted and potential sections. Any credits that are perceived to be at risk should be identified and communicated to the BREEAM assessor.

Furthermore, all targeted credits that require actions to be carried out during RIBA Stage 1 and 2 should be assessed during and at the end of these Stages. The targeted key early action credits are shown in **Appendix 1**.

Should the client wish to proceed with formal assessment, the project should be registered with the BRE at the earliest opportunity, and evidence should be provided to the BREEAM assessor for those credits targeted.

The BREEAM New Construction V6.1 manual should be consulted for the detailed requirements that need to be met to achieve the targeted credits for the building type being assessed as set out in section 1.3 of this report. The manual can be obtained here: <https://breeam.com/standards/technical-manuals-form>

APPENDIX 1 – EARLY ACTION CREDITS

Under BREEAM New Construction V6.1 there are several credits which are time critical and require early action by the design team in order to be achieved. Table 5 shows those that need to be actioned or achieved prior to the completion of RIBA Stage 1 and/or RIBA Stage 2.

Table 5: BREEAM Early Action Requirements

Credit Reference	Responsibility	Credits Available	RIBA Stage 1/2 Criteria	Evidence Required
Man 01 Project delivery planning	Project manager	1	Prior to completion of the Concept Design, the project delivery stakeholders meet to identify and define roles, responsibilities & contributions for each key phase of project delivery. Consider each one of the following items when defining roles, responsibilities and contributions for each key phase of the project: • End user requirements • Aims of the design and design strategy • Particular installation and construction requirements or limitations • Occupiers' budget and technical expertise in maintaining any proposed systems • Maintainability and adaptability of the proposals • Operational energy • Requirements for the production of project and end user documentation • Requirements for commissioning, training and aftercare support. The project team demonstrates how the project delivery stakeholders' contributions and the consultation process outcomes influence the project brief, execution plan, communication strategy and concept design.	Project documentation including project execution plan, project directory, reports, programme, meeting minutes, etc.
Man 01 Stakeholder consultation	Consultation consultant	1	Prior to completion of the Concept Design, the design team consult with all interested parties on matters that cover the minimum consultation content (see definitions in the manual). Demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design. Prior to completion of the detailed design (RIBA Stage 4), all interested parties give and receive consultation feedback.	Consultation plan, list of consultees, statement of community involvement (if produced), meeting minutes, etc

Credit Reference	Responsibility	Credits Available	RIBA Stage 1/2 Criteria	Evidence Required
Man 01 BREEAM AP (Concept Design)	BREEAM AP	1	Involve a BREEAM AP in the project at an appropriate time and level to: a) Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM, from their appointment and throughout Concept Design. b) Monitor progress against the performance targets throughout all stages after their appointment where decisions critically impact BREEAM performance. c) Proactively identify risks and opportunities related to the achievement of the targets agreed. d) Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. e) Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.	BREEAM AP meeting attendance and Stage 2 report
Man 01 BREEAM AP (Developed Design)	BREEAM AP	1	Involve the BREEAM AP in the project at an appropriate time and level to: a) Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the project's overall performance against BREEAM throughout Developed Design. b) Monitor progress against the performance targets agreed throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance. c) Proactively identify risks and opportunities related to the achievement of the targets. d) Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. e) Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.	BREEAM AP meeting attendance and Stage 4 report

Credit Reference	Responsibility	Credits Available	RIBA Stage 1/2 Criteria	Evidence Required
Man 02 Component Level LCC options appraisal	LCC consultant and Project Team	1	A competent person develops a component level LCC options appraisal by the end of Process Stage 4 (equivalent to Technical Design – RIBA Stage 4) in line with PD 156865: 2008. The component level LCC includes (where present): a) Envelope, e.g. cladding, windows, or roofing b) Services, e.g. heat source, cooling source, or controls c) Finishes, e.g. walls, floors or ceilings d) External spaces, e.g. alternative hard landscaping, boundary protection. Demonstrate, using appropriate examples provided by the design team, how the component level LCC options appraisal has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.	Component level LCC report, evidence of how this has been used to maximise critical value and that the report was prepared by a competent person
Man 04 Commissioning - design and preparation	MEP Consultant	1	During the design stage, the client or the principal contractor appoints an appropriate project team member, provided they are not involved in the general installation works for the building services systems, with responsibility for: a) Undertaking design reviews and giving advice on suitability for ease of commissioning. b) Providing commissioning management input to construction programming and during installation stages. c) Management of commissioning, performance testing and handover or post-handover stages. For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager	Evidence of design reviews, design input and management of commissioning
Hea 06 Security of site and building	Security consultant	1	A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security needs assessment (SNA) during or prior to Concept Design. Details of the requirements of the SNA can be provided to the security consultant. The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA. The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS.	Security needs assessment, security specialist credentials, drawings

Credit Reference	Responsibility	Credits Available	RIBA Stage 1/2 Criteria	Evidence Required
Ene 04 Passive design analysis	Energy specialist	1	Undertake thermal modelling in line with credit Hea 04. The project team analyses the proposed building design and development during Concept Design to identify opportunities for the implementation of passive design. Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings. Quantify the reduced total energy demand and carbon dioxide (CO₂-eq) emissions resulting from the passive design measures.	Passive design analysis report, drawings
Ene 04 Low zero carbon technologies	Energy specialist	1	An energy specialist conducts a feasibility study by the end of Concept Design in accordance with BREEAM requirements, to establish the most appropriate local low and zero carbon technology (LZC) for the development. The LZC is specified for the development in line with the recommendations.	LZC report, energy specialist qualifications, drawings and specifications
Tra 01 Transport Assessment and Travel Plan	Transport consultant	2	No later than Concept Design, undertake a site-specific travel assessment (or statement) covering: - Travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. - Predicted travel patterns and transport impact of future building or site users. - Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. - Reporting of the number and type of existing accessible amenities, within 500m of the site. - Disabled access accounting for varying levels and types of disability/ visual impairment. - Calculation of the existing public transport Accessibility Index (AI). - Current facilities for cyclists. - Develop a site-specific travel plan that provides a long-term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation.	Transport assessment and travel plan
Tra 02 Sustainable Transport Measures	Transport consultant	Up to 10	If the transport consultant confirms that the design team will consult with the local authority on the state of the local cycling network and public accessible pedestrian routes this will need to be carried out at Stage 1 .	As above, plus evidence of consultation with local authority on local cycling network and pedestrian routes for improvement

Credit Reference	Responsibility	Credits Available	RIBA Stage 1/2 Criteria	Evidence Required
Mat 01 Environmental impacts from construction products	LCA consultant	Up to 7	Complete a BREEAM compliant life cycle analysis to reduce the environmental impacts of the building materials and submit the results to the BRE before end of Concept Design and before planning permission is applied for.	LCA Analysis report and results for submission to BRE
Mat 03 Enabling sustainable procurement	Architect/Client	1	A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must: a) Be in place before Concept Design. b) Include sustainability aims, objectives and strategic targets to guide procurement activities. Note: targets do not need to be achieved for the credit to be awarded but justification must be provided for targets that are not achieved. c) Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. d) Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan. In addition, if the plan is applied to several sites or adopted at an organisational level it must: e) Identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO 20400:2017.	Sustainable procurement plan
Mat 06 Material efficiency	Architect/Structural Engineer/Drainage Consultant/MEP Consultant	1	At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials. These must be done for each RIBA Stage along with developing and recording the implementation of material efficiencies.	Material efficiency report
Wst 01 Pre-demolition audit	Waste consultant	1	Complete a pre-demolition audit (details of what this should cover can be provided) at Concept Design , of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications.	Pre-demolition audit
Wst 05 Adaptation to Climate Change	Architect/Structural Engineer/Drainage Consultant/MEP Consultant	1	Conduct a climate change adaptation strategy appraisal using a systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective.	Completed Wst 05.1 Template and documentation used to complete this

Credit Reference	Responsibility	Credits Available	RIBA Stage 1/2 Criteria	Evidence Required
Wst 06 Design for Disassembly and Adaptability	Architect/Structural Engineer/Drainage Consultant/MEP Consultant	2	Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design . Develop recommendations or solutions based on the study, during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation.	Completed Wst 06.1 Template and documentation used to complete this
LE 02 – LE 05 Ecology	Ecologist	Up to 11	Appoint an Ecologist at Stage 1 to carry out a survey and evaluation for the site to determine the site’s ecological baseline and provide recommendations to mitigate any ecological damage and improve site ecology.	Ecological survey, ecologist qualifications, evidence showing involvement in the design and cooperation with the design team

APPENDIX 2 – DETAILED CREDIT SUMMARY

Management					
Man 01 - Project brief and design					
	Credit	Available	Targeted	Potential	Comments
1	Project delivery planning	1	1	1	<u>Credit requirements</u> Prior to completion of Concept Design, project delivery stakeholders (i.e. architect, M&E, PM etc) have met to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery considering the following items: • End user requirements • Aims of the design and design strategy • Particular installation and construction requirements or limitations • Occupiers' budget and technical expertise in maintaining any proposed systems • Maintainability and adaptability of the proposals • Operational energy • Requirements for the production of project and end user documentation • Requirements for commissioning, training and aftercare support. The project team demonstrate how the project delivery stakeholder contributions and the outcomes of the consultation process have influenced or changed the following: the initial project brief, Project Execution Plan, communications strategy and concept design. <u>Pre-assessment comments</u> Client confirmed this is viable to target: Client to provide project sustainability brief and meeting minutes. Responsibility - Project Manager/Client/Architect
2	Stakeholder consultation (interested parties)	1	1	1	<u>Credit requirements</u> Prior to completion of the Concept Design, all relevant third-party stakeholders have been consulted by the design team. The project must demonstrate how the stakeholder contributions and outcomes of the consultation exercise have influenced or changed the Initial Project Brief and Concept Design. Prior to completion of the detailed design consultation feedback has been given to, and received by, all relevant parties. <u>Pre-assessment comments</u> Client confirmed this credit is viable to target: Statement of Community Involvement, meeting minutes & presentation

					material to be provided. Responsibility - Project Manager/Client/Architect
3	BREEAM AP (concept design)	1	1	1	<u>Credit requirements</u> BREEAM AP is appointed to work with the team, monitor progress and identify risks and opportunities throughout Concept Design. <u>Pre-assessment comments</u> Ramboll has been appointed as BREEAM AP. Gregory Day (BREEAMAP1000766) has input at the concept design stage. Responsibility - Ramboll BREEAM AP
4	BREEAM AP (developed design)	1	1	1	<u>Credit requirements</u> BREEAM AP is appointed to work with the team, monitor progress and identify risks and opportunities throughout Developed Design. <u>Pre-assessment comments</u> Appointment to be made for Developed Design stage. Responsibility - Ramboll BREEAM AP
Man 02 - Life cycle cost and service planning					
	Credit	Available	Targeted	Potential	Comments
1	Elemental LCC	2	0	2	<u>Credit requirements</u> A competent person (experienced in life cycle costing) to prepare a BREEAM compliant elemental LCC assessment according to PD 156865: 2008. Report needs to be prepared prior to completion of Stage 2. <u>Pre-assessment comments</u> Not currently targeted - the design team has confirmed there are no plans to undertake a compliant LCC at RIBA Stage 2. These credits have been identified as "potential" credits to be explored further by the design team once the BREEAM Design stage assessment commences. Responsibility - Project Manager/Cost Consultant

2	Component level LCC options appraisal	1	1	1	<u>Credit requirements</u> A competent person develops a component level LCC options appraisal by the end of RIBA Stage 4 in line with PD 156865: 2008. The component level LCC includes (where present): 1. Envelope, e.g. cladding, windows, or roofing 2. Services, e.g. heat source cooling source, or controls 3. Finishes, e.g. walls, floors or ceilings 4. External spaces, e.g. alternative hard landscaping, boundary protection. <u>Pre-assessment comments</u> Client confirmed this credit is viable to target: appointment to be made for Component Level LCC report. Responsibility - Cost Consultant
3	Capital cost reporting	1	1	1	<u>Credit requirements</u> Report the capital cost for the building in pounds per square metre (£k/m). The capital cost for the building includes the expenses related to the initial construction of the building: • Construction, including preparatory works, materials, equipment and labour • Site management • Construction financing • Insurance and taxes during construction • Inspection and testing Costs related to land procurement, clearance, design, statutory approvals and post occupancy aftercare are not included. <u>Pre-assessment comments</u> Team confirmed this is viable to target. Responsibility - Project Manager/Cost Consultant
Man 03 - Responsible construction practices					
	Credit	Available	Targeted	Potential	Comments
Pre-req 1	Prerequisite - Legally harvested and traded timber				<u>Credit requirements</u> All timber-based products and timber used during the construction are legally sourced and sustainable. Requirements need to be incorporated within contractor's preliminaries.

					<u>Pre-assessment comments</u> Team confirmed this is viable to target. Responsibility - Principal Contractor/Project Manager
1	Environmental management	1	1	1	<u>Credit requirements</u> All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations, e.g. ISO 14001 EMAS certification or BS 8555: 2016 and implements best practice pollution prevention policies and procedures on-site in accordance with PPG6. <u>Pre-assessment comments</u> Team confirmed this is viable to target. Responsibility - Principal Contractor/Project Manager
2	BREEAM AP (site)	1	1	1	<u>Credit requirements</u> The client and contractor formally agree BREEAM performance targets. A BREEAM Advisory Professional (AP) is involved throughout construction, handover and close out stages to monitor progress against performance targets and proactively identify risks and opportunities related to procurement and construction process to meet the BREEAM requirements. Insert in contract prelims. <u>Pre-assessment comments</u> Team confirmed this is viable to target. Appointment to be made for BREEAM AP for Construction stage. Responsibility - Project Manager/Client/Principal Contractor
3	Responsible construction management	2	2	2	<u>Mandatory reqs: Excellent - 1 credit Outstanding - 2 credits</u> <u>Credit requirements</u> Achieve mandatory items listed as required as well as six additional items in Table 4.1 - Responsible construction management items. Considerate Construction Scheme monitors reports and certificates can be used as evidence to demonstrate that the relevant items in the criteria have been achieved as follows: One credit - 9 points per section - 27 points overall Two credits - 11 points per section - 35 points overall

					<u>Pre-assessment comments</u> Client has confirmed 2 credits viable to target. Client team to confirm whether the development will be formally enrolled in the Considerate Constructors Scheme. Criteria to be included in contractor requirements. Responsibility - Principal Contractor/Project Manager
4	Monitoring of construction site impacts	2	2	2	<u>Credit requirements</u> Targets are set for energy and water consumption and transportation movements throughout the construction period. Assign responsibility to an individual with an appropriate authority for monitoring, recording and reporting energy use, water consumption and transportation data (where measured) resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme. Insert in contract prelims. This monitoring data shall be used to present summarised figures for Energy consumption in kWh and total kgCO₂/project value (and litres of fuel used where applicable), net water consumption (minus any recycled water usage) in m³ and transport-related carbon dioxide emissions (kgCO₂e) and total distance travelled separately recorded for materials delivery and waste removal. <u>Pre-assessment comments</u> Client has confirmed credit viable to target. Criteria to be included in contractor requirements. Responsibility - Principal Contractor/Project Manager
e1	Responsible construction management	1	0	1	<u>Credit requirements</u> Achieve all items in table 4.1 on page 52 (BREEAM NC 2018 technical guide). Considerate Construction Scheme monitors reports and certificates can be used as evidence to demonstrate that the relevant items in the criteria have been achieved as follows: Exemplary credit - 13 points per section - 39 points overall <u>Pre-assessment comments</u> Credit not currently targeted - at this stage it is difficult to predict the likely Considerate Construction Scheme score to be achieved for the development site. This credit has been identified as a "potential" credit to be explored further by the design team once project construction commences.

					Responsibility - Principal Contractor/Project Manager
Man 04 - Commissioning and handover					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite (Very Good to Outstanding)				
1	Commissioning - testing schedule and responsibilities	1	1	1	<u>Mandatory reqs: Very Good - 1 credit Excellent - 1 credit Outstanding - 1 credit</u> <u>Credit requirements</u> Prepare a schedule of commissioning and testing for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric, in accordance with the relevant standards. Insert within contract prelims. <u>Pre-assessment comments</u> Client has confirmed credit viable to target. Criteria to be included in contractor requirements. Responsibility - Principal Contractor/Project Manager
2	Commissioning - design and preparation	1	1	1	<u>Credit requirements</u> Can only be achieved if the first commissioning credit is awarded. During design stage the client/contractor appoint an appropriate individual (Specialist commissioning manager) to carry out commissioning tasks: • Undertaking design reviews and giving advice on suitability for ease of commissioning. • Providing commissioning management input to construction programming and during installation stages. • Management of commissioning, performance testing and handover or post-handover stages. <u>Pre-assessment comments</u> Client has confirmed credit is viable to target. Responsibility - Project Manager/Specialist Commissioning Manager
3	Testing and inspecting building fabric	1	1	1	<u>Credit requirements</u> Requires the first commissioning credit to be achieved. Complete post-construction testing and inspection to the integrity of the building fabric, including continuity of insulation,

					avoidance of thermal bridging and air leakage paths and rectify any defects prior to handover and close-out. Air tightness testing and a Thermographic survey. Remedial works required for any encountered issues. <u>Pre-assessment comments</u> Client has confirmed credit is viable to target. To be captured within the contractors' requirements and budget. Responsibility - Project Manager/Principal Contractor
4	Handover	1	1	1	<u>Mandatory reqs: Very Good - 1 credit (BUG) Excellent - 1 credit (BUG) Outstanding - 1 credit (BUG)</u> <u>Credit requirements</u> Prior to handover two building user guides are developed and two training schedules. Firstly, non-technical for building occupiers to inform on operation of services and a provision of contacts. Secondly, technical for facilities managers for cleaning, servicing and removal of services. Insert within contract prelims. <u>Pre-assessment comments</u> Client has confirmed credit is viable to target. Responsibility - Project Manager/Client/Contractor
		18	16	18	Standard Management Credit Total
		1	0	1	Exemplary Management Credit Total
		11.98	9.76	11.98	% Management Total (Standard + Exemplary)
Health & Wellbeing					
Hea 01 - Visual comfort					
	Credit	Available	Targeted	Potential	Comments
2	Daylighting (building type dependent)	1	1	1	<u>Credit requirements</u> Daylighting criteria have been met using either of the following options: a The relevant building areas meet good practice daylight factors and other criteria as outlined in Table 5.1 below and Table 5.2; OR b The relevant building areas meet good practice average and minimum point daylight illuminance criteria as outlined in

					Table 5.3 on page 77. <u>Pre-assessment comments</u> Not targeted. Based on the depth of the project floorplates, it is considered unlikely that the development would achieve the daylight factors and percentage area compliance required by the BREEAM criteria. Responsibility - Project Manager/Client
3	View out	1	1	1	<u>Credit requirements</u> 95% of the floor area in 95% of spaces for each relevant building area provides an adequate view out. <i>Adequate view out</i> Where relevant building areas are within 8m of an external wall which has a window or permanent opening, and the window or opening is $\geq 20\%$ of the surrounding wall area. Where the room depth is greater than 8m, the percentage of window or opening must instead be the same as, or greater than, the values in Table 1.0 BS8206: Part 2. The view out must be a view of a landscape or buildings (rather than just the sky) at seated eye level (1.2-1.3m) within the relevant building areas and should ideally be through an external window. A view into an internal courtyard or atrium will comply provided the distance from the opening to the back wall of the courtyard or atrium is at least 10m (therefore allowing enough distance for the eyes to refocus). The view cannot be an internal view across the room, as this is likely to become obstructed by partitions, filing cabinets etc. In addition to this, an external view out can offer positive effects on health and wellbeing that cannot be offered by an internal view. <u>Pre-assessment comments</u> Design team has confirmed that credit is viable to target - Architect to confirm glazing ratios. Responsibility - Architect
4	Internal and external lighting levels, zoning and control	1	1	1	<u>Credit requirements</u> Internal lighting in all relevant areas of the building is designed to provide illuminance (lux) levels and colouring rendering index in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 2.4, 2.13 to 2.15, 2.20, and 6.10 to 6.20. All external lighting located within the construction zone is specified in accordance with BS 5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of workplaces - Part 2: Outdoor workplaces.

					Internal lighting is zoned to allow for occupant control. Zoning is in accordance with the criteria below for relevant areas present within the building: • In office areas, zones of no more than four workplaces • Workstations adjacent to windows or atria and other building areas separately zoned and controlled • Seminar and lecture rooms: zoned for presentation and audience areas • Library spaces: separate zoning of stacks, reading and counter areas • Teaching space or demonstration area • Whiteboard or display screen • Auditoria: zoning of seating areas, circulation space and lectern area • Dining, restaurant, cafe areas: separate zoning of servery and seating or dining areas • Wards or bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of bed spaces • Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff. Areas used for teaching, seminar or lecture purposes have lighting controls provided in accordance with CIBSE Lighting Guide 5 and manual lighting controls are easily accessible for the teacher while teaching and on entering or leaving the teaching space. Manual lighting controls need only be provided for staff. <u>Pre-assessment comments</u> Design team has confirmed that the lighting specification will comply with the BREEAM requirements. Credit viable to target. Responsibility - MEP
e1	Daylighting (building type dependent)	1	0	0	<u>Credit requirements</u> Relevant building areas meet exemplary daylight factors and the relevant criteria. <u>Pre-assessment comments</u> Not currently targeted - the design team has confirmed there are no plans to undertake a daylight assessment for the proposed development. Based on the depth of the project floorplates, it is considered unlikely that the building would achieve the exemplary daylight factors and percentage area compliance required by the BREEAM criteria. Responsibility - MEP

Hea 02 - Indoor air quality					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite - Indoor air quality (IAQ) plan				<u>Credit requirements</u> A site specific indoor air quality plan is prepared to minimise indoor air pollution during occupation of the building, covering the following as a minimum: • Removal of contaminant sources • Dilution and control of contaminant sources. Where present, consideration is given to the air quality requirements of specialist areas such as laboratories • Procedures for pre-occupancy flush out • Third party testing and analysis • Maintaining good indoor air quality in-use. <u>Pre-assessment comments</u> Client has confirmed that an IAQP has not yet been appointed. MEP consultant to confirm whether the subsequent Ventilation credit is deemed feasible in order to inform whether this will be required to satisfy the pre-requisite criteria. Responsibility - Architect/MEP/Principal Contractor
1	Ventilation	1	0	0	<u>Credit requirements</u> Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation. Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building. Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution. Occupied spaces have carbon dioxide (CO2) sensors in line with building Regulations ADF2 and: • In mechanically ventilated buildings or spaces, sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space. • In naturally ventilated buildings or spaces, sensors either have the ability to alert the building owner or manager when CO2 levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, e.g. automatic opening windows or roof vents. • The total number of sensors, and the net internal area of relevant areas covered by the sensors, is reported via the BREEAM Scoring and Reporting Tool The ventilation strategy provides adequate ventilation rates throughout the year, including sufficient airflow rates in summer to prevent overheating and maintain required thermal comfort conditions, in accordance with: • CIBSE AM10 (for naturally ventilated buildings) • CIBSE AM13 (for mixed-mode buildings)

					<u>Pre-assessment comments</u> Not currently targeted - MEP consultant to confirm whether it will be possible to achieve the required distance between building's air intakes and exhausts of at least 10m of horizontal distance. Responsibility - MEP
Hea 04 - Thermal comfort					
	Credit	Available	Targeted	Potential	Comments
1	Thermal modelling	1	1	1	<u>Credit requirements</u> CIBSE AM11 compliant thermal modelling is carried out using full dynamic thermal analysis. This demonstrates the following compliance: - Air-conditioned buildings - summer and winter temperature ranges to CIBSE Guide A. - Naturally ventilated buildings - winter temperature ranges to CIBSE Guide A with overheating risk to CIBSE TM52 or TM59. <u>Pre-assessment comments</u> Viable to target. Client to confirm whether associated appointment has been made. Responsibility - Thermal modelling specialist
2	Design for future thermal comfort	1	1	1	<u>Credit requirements</u> Achieve the first thermal modelling credit. The thermal modelling demonstrates that the relevant requirements are achieved for a projected climate change environment. <u>Pre-assessment comments</u> Viable to target. Client to confirm whether associated appointment has been made. Responsibility - Thermal modelling specialist
Hea 05 - Acoustic performance					
	Credit	Available	Targeted	Potential	Comments

1	Acoustic performance	1	1	1	Acoustic Performance - 1/1 credits targeted The building meets the appropriate acoustic performance standards and testing requirements for the acoustic principle of: - Indoor ambient noise level (requirements below) OR - A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all function areas in the building, setting out the performance requirements and the testing regime required. Criteria Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014. Testing requirement A programme of pre-completion acoustic testing is carried out by a compliant test body in accordance with the acoustic testing and measurement procedures by the BREEAM New Construction V6.1 standard. <u>Pre-assessment comments</u> Credit identified as viable to target. Stage 3 acoustic report to be provided as evidence. Responsibility - Acoustician
Hea 06 - Security					
	Credit	Available	Targeted	Potential	Comments
1	Security of site and building	1	1	1	<u>Credit requirements</u> A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design. This will identify attributes of the proposal, site and surroundings which may influence the approach to security for the development. The SQSS will develop a set of security controls and recommendations for incorporation into the proposals that directly relate to the threats and assets identified in the SNA. The control measures and recommendations are incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS. <u>Pre-assessment comments</u> Client has confirmed that credit is viable to target. Confirmation of Suitably Qualified Security Specialist and subsequent Security Needs Assessment required. Responsibility - Project Manager/Security Specialist/Architect

e1	Security of site and building	1	0	0	<u>Credit requirements</u> A compliant risk based security rating scheme has been used (SABRE). The performance against the scheme has been confirmed by independent assessment and verification. <u>Pre-assessment comments</u> Not currently targeted - the design team has confirmed the SABRE security rating scheme will not be used to assess the security performance of the development design. Responsibility - Project Manager/Security Specialist/Architect
Hea 07 - Safe and healthy surroundings					
	Credit	Available	Targeted	Potential	Comments
1	Safe access	1	1	1	<u>Credit requirements</u> Dedicated cycle paths are provided from site entrance to cycle parking and connect to offsite cycle paths. Footpaths connect to offsite footpaths and provide links between: • Site entrance and building entrance • Car parks and building entrance • Building to outdoor space Deliveries do not cross or share pedestrian and cyclist paths. A waiting area is provided away from car parking and manoeuvring areas. <u>Pre-assessment comments</u> Design team has confirmed credit is viable to target. Responsibility - Landscape Architect / Architect
2	Outside space	1	1	1	<u>Credit requirements</u> Outside space is provided and includes appropriate seating, is non-smoking and away from noisy areas (busy roads, car parks, building services, etc.) <u>Pre-assessment comments</u> Design team has confirmed credit is viable to target. Seating area to be located so as to minimise noise impact.

					Responsibility - Architect/Landscape Architect
		10	9	9	Standard Health & Wellbeing Credit Total
		2	0	0	Exemplary Health & Wellbeing Credit Total
		10	7.20	7.20	% Health & Wellbeing Total (Standard + Exemplary)
Energy					
Ene 01 - Reduction of energy use and carbon emissions					
	Credit	Available	Targeted	Potential	Comments
1	Energy performance	9	6	6	<u>Mandatory reqs: Excellent - 4 credits Outstanding - 6 credits</u> <u>Credit requirements</u> An energy performance ratio EPR_{NC} is calculated via National Calculation Method (NCM) compliant energy modelling for the building and resulting BRUKL output. <u>Pre-assessment comments</u> The client is keen to develop a sustainable building, with 6 indicative credits targeted based on early stage analysis of anticipated building energy performance. The potential for achieving additional credits based on the development's energy performance will be evaluated as the development design progresses. Responsibility - Energy Specialist
2	Prediction of operational energy consumption	4	0	0	<u>Mandatory reqs: Outstanding - 4 credits</u> <u>Credit requirements</u> Involve relevant members of the design team in an energy design workshop focusing on operational energy performance. Undertake additional energy modelling during the design and post-construction stage to generate predicted operational energy consumption figures. Report predicted energy consumption targets by end use, design assumptions and input data. Carry out a risk assessment to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process. <u>Pre-assessment comments</u>

					Not currently targeted. The design team has confirmed that additional operational energy modelling is unlikely to be undertaken. Responsibility - Energy Specialist
e1	Beyond zero net regulated carbon - - Exemplary level criteria	3	0	0	<u>Credit requirements</u> The building achieves an EPR_{NC} 0.9 and zero net regulated CO₂-eq emissions. Energy generation from on-site and near-site LZC sources is sufficient to offset carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use. <u>Pre-assessment comments</u> Not currently targeted - the design team has confirmed that based on early stage analysis of building energy performance, the development will likely not be able to achieve an EPR_{NC} of 0.9. In addition, the specified low and zero carbon technologies will not be capable of fully offsetting the carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use. Responsibility - Energy Specialist
e2	Post-occupancy evaluation of operational energy consumption - Exemplary level criteria	2	0	0	<u>Credit requirements</u> The building is deemed carbon negative where > 100% of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources. <u>Pre-assessment comments</u> Not currently targeted - the design team has confirmed that the building will not be able to achieve carbon negative design. Responsibility - Energy Specialist
Ene 02 - Energy monitoring					
	Credit	Available	Targeted	Potential	Comments
1	Sub-metering of end use categories	1	1	1	<u>Mandatory reqs: Very Good - 1 credit Excellent - 1 credit Outstanding - 1 credit (all first sub-metering credit)</u> <u>Credit requirements</u> Install energy meters so that at least 90% of the estimated annual energy consumption of each fuel type is assigned to the following end-use categories for monitoring purposes: 1. Space heating 2. Domestic hot water heating

					3. Humidification 4. Cooling 5. Ventilation, i.e. fans (major) 6. Pumps 7. Lighting 8. Small power 9. Renewable or low carbon systems (separately) 10. Controls 11. Other major energy consuming systems or plant If the area is greater than 1,000m², by end-use category with an appropriate energy monitoring and management system. Building users can identify the energy consuming end uses, for example through labelling or data outputs. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. All required end uses will be metered according to the BREEAM requirements. Responsibility - MEP
2	Sub-metering of high energy load and tenancy areas	1	1	1	<u>Credit requirements</u> Install monitored sub metering for: • Tenanted areas OR • Function areas or departments for single occupancy buildings <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. All separately tenanted areas will be separately sub-metered. Responsibility - MEP
Ene 03 - External Lighting					
	Credit	Available	Targeted	Potential	Comments
1	External lighting	1	1	1	<u>Credit requirements</u> External light fittings within the construction zone must have; An average initial luminous efficacy of no less than 70 luminaire lumens per circuit Watt, automatic control to prevent operation during daylight hours and presence detection in areas of intermittent pedestrian traffic.

					<u>Pre-assessment comments</u> Design team has confirmed credit is viable to target. Responsibility - MEP
Ene 04 - Low carbon design					
	Credit	Available	Targeted	Potential	Comments
1	Passive design	2	1	1	Passive design <u>Credit requirements</u> Achieve the first credit Hea 04 Thermal comfort. Undertake a passive design analysis during Concept Design to identify opportunities for the implementation of passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption. Free cooling <u>Credit requirements</u> Achieve the passive design analysis credit. Include a free cooling analysis in the passive design analysis to identify opportunities for the implementation of free cooling solutions. The credit is awarded where one of the following is included: 1. Night time cooling (which could include the use of a high exposed thermal mass) 2. Ground coupled air cooling 3. Displacement ventilation (not linked to any active cooling system) 4. Ground water cooling 5. Surface water cooling 6. Evaporative cooling, direct or indirect 7. Desiccant dehumidification and evaporative cooling, using waste heat 8. Absorption cooling, using waste heat. <u>Pre-assessment comments</u> The credit for a Passive Design Analysis has been targeted dependant on the team producing a suitable report during the Concept Design stage. The credit for free cooling has not been targeted - the design team has confirmed that the above free cooling methods will not be suitable for the development design. Responsibility - Energy Specialist

2	Low and zero carbon technologies	1	1	1	<u>Credit requirements</u> An energy specialist completes a feasibility study by the end of Concept Design. Specify local LZC technologies for the building or development in line with the feasibility study recommendations. <u>Pre-assessment comments</u> The credit for a Low and Zero Carbon Feasibility study has been targeted dependant on the team producing a suitable report during the Concept Design stage. Client to share existing energy strategy with BREEAM assessor for review. Responsibility - Energy Specialist
Ene 06 - Energy efficient transportation systems					
	Credit	Available	Targeted	Potential	Comments
1	Energy consumption	1	1	1	<u>Credit requirements</u> Analyse the transportation demand and usage patterns for the building to determine the optimum number and size of lifts, escalators or moving walks. Compare at least two options for each transportation type (e.g. for lifts, hydraulic, traction or machine roomless (MRL)) OR at least two options considering different system arrangements and control strategies. Consider the use of regeneration drives. Specify the system with the lowest energy consumption. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target, based on a transport demand analysis being conducted for any applicable systems. Responsibility - Lift Consultant
2	Energy efficient features	1	1	1	<u>Credit requirements</u> Specify the following three energy efficient features for each lift: • A standby condition for off-peak periods • The lift car lighting and display lighting provides an average luminous efficacy across all fittings in the car of > 70 luminaire lumens per circuit Watt • Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.

					Specify regenerative drives where their use is demonstrated to save energy. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. BREEAM requirements should be discussed with the lift contractor once engaged. Responsibility - Lift Consultant
		21	13	13	Standard Energy Credit Total
		5	0	0	Exemplary Energy Credit Total
		19.07	8.71	8.71	% Energy Total (Standard + Exemplary)
Transport					
Tra 01 - Transport assessment and travel plan					
	Credit	Available	Targeted	Potential	Comments
1	Travel plan	2	2	2	<u>Credit requirements</u> No later than Concept Design (RIBA Stage 2), undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form, covering the below BREEAM requirements as a minimum: • If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. • Predicted travel patterns and transport impact of future building or site users. • Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. • Reporting of the number and type of existing accessible amenities, within 500m of the site. • Disabled access accounting for varying levels and types of disability, including visual impairment. • Calculation of the existing public transport Accessibility Index (AI). • Current facilities for cyclists. If the occupier is known, involve them in the development of the travel plan. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. A Travel Plan is to be produced as part of the planning submission.

					Responsibility - Transport Consultant
Tra 02 - Sustainable transport measures					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Pre-requisite				<u>Credit requirements</u> Tra 01 credits to be achieved.
1	Transport options implementation	10	7	7	<u>Credit requirements</u> Credits are awarded on the implementation of the following sustainable transport measures dependent upon the AI of the site. - Existing Accessibility Index (AI) greater than 8 - 1 point - AI increase: - Increase in AI through public transport company negotiation - 2 points - Increase in AI through diverted bus route or a new enhanced bus stop - 3 points - Provide a dedicated bus service - 3 points Provide a public transport information system in a publicly accessible area - 1 point At least 3kW EV charging points available for >10% of the total parking area - 1 point Car sharing group that is marketed and has priority car parking spaces - 1 point <i>Local Authority consultation takes place at Stage 1 to assess local pedestrian and cyclist network with implementation of improvements - 2 points</i> BREEAM compliant cycle parking spaces -1 point Two BREEAM compliant cyclist facilities (showers, changing facilities, lockers, drying spaces) - 1 point - Three existing accessible amenities (food outlet, cash machine, outdoor space, leisure facility, post box, community facility, pharmacy, GP, child care facility or school) - 1 point - Enhanced amenities: One new accessible amenity (food outlet, cash machine, outdoor space, leisure facility, post box, community facility, pharmacy, GP, child care facility or school) is provided - 2 points - More than one new accessible amenity (food outlet, cash machine, outdoor space, leisure facility, post box, community facility, pharmacy, GP, child care facility or school) is provided - 3 points <u>Pre-assessment comments</u> 7 points targeted as outlined above items. Client to confirm if local authority were consulted on cycle network & pedestrian routes. Transport consultant to confirm AI.

					Responsibility - Transport Consultant/Architect/MEP/Project Manager
		12	9	9	Standard Transport Credit Total
		0	0	0	Exemplary Transport Credit Total
		11.52	8.64	8.64	% Transport Total (Standard + Exemplary)
Water					
Wat 01 - Water consumption					
	Credit	Available	Targeted	Potential	Comments
1	Water consumption	5	4	5	<u>Mandatory reqs: Good - 1 credit Very Good - 1 credit Excellent - 1 credit Outstanding - 2 credits</u> Sanitary fittings are selected to achieve a % improvement over the BREEAM baseline for water consumption. 1 credit - 12.5% improvement 2 credits - 25% improvement 3 credits - 40% improvement 4 credits - 50% improvement 5 credits - 55% improvement The specification listed below provides indicative, non-exhaustive, flow rates for fitted components to achieve the required 50% reduction over baseline water consumption: WCs - 3.5 effective flush volume (litres) (4/2.6L dual flush cisterns achieve an effective flush volume of 2.95L) WHBs - 4 (litres/min) Showers - 5 (litres/min) Urinals - 0.75 (litres/bowl/hour) Kitchen tap - 5 (litres/min) Servery pre-rinse nozzles - 6.3 (litres/min) Domestic sized dishwasher - 11 (litres/cycle) Domestic sized washing machines - 35 (litres/use) <u>Pre-assessment comments</u> A 50% improvement has currently been targeted for the development - the design team has confirmed that rainwater

					harvesting is unlikely to be considered for the scheme based on the proposed infrastructure and embodied carbon of the additional systems required to deliver this. This will be investigated as the design progresses and sanitaryware provision is confirmed. Responsibility - Architect/MEP
e1	Water consumption	1	0	0	<u>Credit requirements</u> At least a 65% reduction over baseline water consumption. <u>Pre-assessment comments</u> A 50% improvement has currently been targeted for the development - the design team has confirmed that rainwater harvesting is unlikely to be considered for the scheme based on the proposed infrastructure and embodied carbon of the additional systems required to deliver this. This will be investigated as the design progresses and sanitaryware provision is confirmed. Responsibility - Architect/MEP
Wat 02 - Water monitoring					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite (Good to Outstanding)				
1	Water monitoring	1	1	1	<u>Mandatory reqs: Good - Criterion 1 Very Good - Criterion 1 Excellent - Criterion 1 Outstanding - Criterion 1</u> <u>Credit requirements</u> Specify a water meter on the mains water supply to each building. This includes instances where water is supplied via a borehole or other private source. For water-consuming plant or building areas consuming 10% or more of the buildings total water demand, fit easily accessible sub-meters OR install water monitoring equipment integral to the plant or area. For each meter (main and sub): • Install a pulsed or other open protocol communication output AND • Connect it to an appropriate utility monitoring and management system, e.g. a building management system (BMS), for the monitoring of water consumption. If there is no BMS system in operation at post-construction stage, award credits provided that the system used enables connection when the BMS becomes operational. <u>Pre-assessment comments</u> Design team has confirmed that the credit is viable to target - a pulsed water meter will be specified on the incoming

					supply, with appropriate sub-metering as required. Responsibility - MEP
Wat 03 - Water leak detection					
	Credit	Available	Targeted	Potential	Comments
1	Leak detection system	1	1	1	<u>Credit requirements</u> Install or have a leak detection system capable of detecting a major water leak (connected to BMS if supplied). One between local utilities main supply and building, a second on the water supply within the assessed building. This must be: • A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks • Activated when the flow of water passing through the water meter or data logger is at a flow rate above a pre-set maximum for a pre-set period of time. • Able to identify different flow and therefore leakage rates, e.g. continuous, high or low level, over set time periods. • Programmable to suit the owner's or occupier's water consumption criteria • Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target - a suitable leak detection system will be specified. Responsibility - MEP
2	Flow control devices	1	1	1	<u>Credit requirements</u> Install flow control devices that regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework (i.e. solenoid valves). <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target - PIR sensors connected to solenoid valves are likely to be installed within sanitary areas. Responsibility - MEP
		8	7	8	Standard Water Credit Total

	1	0	0	Exemplary Water Credit Total	
	8.04	6.16	7.04	% Water Total (Standard + Exemplary)	
Materials					
Mat 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)					
	Credit	Available	Targeted	Potential	Comments
1	Superstructure	6	2	2	<u>Credit requirements</u> Superstructure during Concept Design (Simplified Building LCA Tool OR IMPACT compliant LCA Tool) Materials quantities for the building are input to the Simplified Building LCA Tool which calculates Ecopoints. Then input to MAT01/02 results tool and would need to be submitted to the BRE at the end of Concept Design, and before planning permission is applied for (includes external material or product specifications) OR Undertake LCA using IMPACT compliant software to demonstrate the environmental performance of the building. Superstructure during Technical Design (IMPACT compliant LCA Tool) Undertake LCA using IMPACT compliant software to demonstrate the environmental performance of the building. Options appraisal during Concept Design Office, industrial and retail buildings must achieve the Concept Design criteria above. Carry out a building IMPACT compliant LCA options appraisal of 2-4 significantly different superstructure design options. Options must fulfil the same functional requirements and be integrated into the design decision making process. Options appraisal during Technical Design Office, industrial and retail buildings must achieve the Concept Design criteria above. Carry out a building IMPACT compliant LCA options appraisal of 2-3 significantly different superstructure design options based on Concept Design options. <u>Pre-assessment comments</u> The design team has confirmed that a building life cycle assessment (LCA) will be undertaken at RIBA Stage 2 in order to influence the design. Based on the quantified materials, 2 credits have been targeted. The design team must ensure the Mat 01/02 Results Submission Tool is uploaded to BRE platform by the end of Concept Design, and <u>before</u> planning permission is applied for. Responsibility - LCA Consultant/Architect/Structural Engineer

2	Substructure and hard landscaping options appraisal during Concept Design (all building types)	1	1	1	<u>Credit requirements</u> Carry out IMPACT compliant LCA options appraisal at Concept Design of a combined total of at least six significantly different substructure or hard landscaping design options (at least two shall be substructure and at least two shall be hard landscaping). Options must fulfil the same functional requirements and be integrated into the design decision making process. <u>Pre-assessment comments</u> The design team has confirmed that a building life cycle assessment (LCA) will be undertaken at RIBA Stage 2 in order to influence the design. Based on the quantified materials, 1 credit has been targeted. The design team must ensure the Mat 01/02 Results Submission Tool is uploaded to BRE platform by the end of Concept Design, and <u>before</u> planning permission is applied for. Responsibility - LCA Consultant/Landscape/Structural Engineer
e1	Core building services options appraisal during Concept Design (all building types)	1	0	0	<u>Credit requirements</u> Carry out building IMPACT compliant LCA options appraisal of at least 3 significantly different core building services design options. Options must fulfil the same functional requirements and be integrated into the design decision making process. <u>Pre-assessment comments</u> Not targeted - the development building services have not been evaluated as part of the Building life cycle assessment (LCA). Responsibility - LCA Consultant/MEP
e2	LCA and LCC alignment (all building types)	1	0	0	<u>Credit requirements</u> Achieve both LCC credits under Man 02. Include design options appraised for LCA during Concept Design within the elemental LCC as well as the design options appraised for LCA during Technical Design within the component level LCC. Ensure the aligned LCA and LCC options appraisal is integrated into the design decision making process, including costs. <u>Pre-assessment comments</u> Not targeted - the design team has confirmed there are no plans to align the LCC and LCA report for the development. Responsibility - LCA Consultant/LCC Consultant

e3	Third party verification (all building types) - Exemplary level criteria	1	0	0	<u>Credit requirements</u> A suitably qualified third party either carries out the building LCA work or verifies the building LCA work (if by others), and produces a report describing how they have checked the building LCA work accurately represent the designs under consideration during Concept Design/Technical Design. <u>Pre-assessment comments</u> Not currently targeted - third party verification of the building LCA will not be undertaken. Responsibility - LCA Consultant/Third Party Verifier
Mat 02 - Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)					
	Credit	Available	Targeted	Potential	Comments
1	Specification of products with a recognised environmental product declaration (EPD)	1	1	1	<u>Credit requirements</u> Specify construction products with EPD that achieve a total EPD points score of at least 20. This typically needs a minimum of 15 EPDs for timber or timber based products, concrete of cementitious, metal, stone or aggregate, clay based, gypsum, glass, plastic, polymer, resin, paint, chemicals and bituminous, animal fibre and cellulose fibre. <u>Pre-assessment comments</u> The design team has confirmed that this credit is viable to target at this stage. This should be included within the contractors' requirements, and will require additional input from the principal contractor once appointed. Responsibility - Architect/Principal Contractor
Mat 03 - Responsible sourcing of construction products					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite				<u>Mandatory reqs: Pass - Criterion 1 Good - Criterion 1 Very Good - Criterion 1 Excellent - Criterion 1 Outstanding - Criterion 1</u> <u>Credit requirements</u> 100% of timber and timber-based products used on the project are 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy. <u>Pre-assessment comments</u> Project team confirmed this is viable to target.

					Responsibility - Project Manager/Principal Contractor
1	Enabling sustainable procurement	1	1	1	<u>Credit requirements</u> A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must be in place before Concept Design (RIBA Stage 2). The plan incorporates the following criteria as a minimum: • Include sustainability aims, objectives and strategic targets to guide procurement activities. Note: targets do not need to be achieved for the credit to be awarded but justification must be provided for targets that are not achieved. • Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. • Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan. In addition, if the plan is applied to several sites or adopted at an organisational level it must identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO 20400:2017. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. Client to check with commercial team if SPP has been developed. Responsibility - Project Manager/Client
2	Measuring responsible sourcing	3	1	2	<u>Credit requirements</u> Specify construction products that are covered by responsible sourcing (RSCS) certification or environmental management system (EMS) certification. 1 credit is available for a score >10% for superstructure materials only. 2 credits available for >20% superstructure, substructure and hard landscaping and internal finishes materials. 3 credits available for >30% superstructure, substructure and hard landscaping and internal finishes materials. <u>Pre-assessment comments</u> The contractor will be required to responsibly source construction materials with at least 10% of points targeted. Once the principal contractor is onboard they will confirm if they can achieve the potential credit for achieving > 20% of points in line with achieving additional credits under this credit issue.

					Responsibility - Architect/Structural Engineer/MEP/Landscape Architect/Principal Contractor
e1	Measuring responsible sourcing	1	0	0	<u>Credit requirements</u> Specify construction products that are covered by responsible sourcing (RSCS) certification or environmental management system (EMS) certification. An exemplary level credit is available for a score of >50% superstructure, substructure and hard landscaping and internal finishes materials. <u>Pre-assessment comments</u> Not currently targeted - Once the principal contractor is onboard they will confirm if they can achieve the potential credit for achieving > 50% of points in line with achieving additional credits. Responsibility - Architect/Structural Engineer/MEP/Landscape Architect/Principal Contractor
Mat 05 - Designing for durability and resilience					
	Credit	Available	Targeted	Potential	Comments
1	Protecting vulnerable parts of the building from damage/material degradation	1	1	1	<u>Credit requirements</u> Protection vulnerable parts of the building from damage Protection measures have been discussed and are incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring. These measures must protect against: - Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.). - Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. - External building fabric damage by a vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building facade and where delivery areas or routes are within 2 metres of the facade, i.e. specifying bollards or protection rails. - Potential malicious damage to building materials and finishes, in public and common areas where appropriate. Protection exposed parts of the building from material degradation Key exposed building elements have been designed and specified to limit long and short-term degradation due to environmental factors. This should include convenient access to the roof and facade for cost-effective cleaning, replacement and repair in the building's design and in designing the roof and facade to prevent water damage, ingress and detrimental ponding. Either:

					- The element or product/s in situ achieve an appropriate quality or durability standard or design guide. If none are available, use BS 7543:2015 as the default appropriate standard OR - A detailed assessment is conducted of the element's resilience when exposed to the applicable material degradation and environmental factors. <u>Pre-assessment comments</u> Team confirmed credit is viable to target. Architect to confirm specified durability measures. Responsibility - Architect
Mat 06 - Material efficiency					
	Credit	Available	Targeted	Potential	Comments
1	Material efficiency	1	1	1	<u>Credit requirements</u> At Preparation and Brief (RIBA stage 1) and Concept Design (RIBA Stage 2), set targets and report on opportunities and methods to optimise the use of materials. This report should be updated at Developed Design (RIBA Stage 3), Technical Design (RIBA stage 4) and Construction (RIBA Stage 5) stages. The actual material efficiencies should be calculated, and records of these methods being implemented at RIBA stages 3, 4 and 5 should be reported. <u>Pre-assessment comments</u> Team confirmed credit is viable to target. Design team to complete templates provided to outlined early stage recommendations for incorporating material efficiency initiatives within the developed design. Responsibility - Architect/Structural Engineer
		14	8	9	Standard Materials Credit Total
		4	0	0	Exemplary Materials Credit Total
		21.50	10	11.25	% Materials Total (Standard + Exemplary)
Waste					
Wst 01 - Construction waste management					
	Credit	Available	Targeted	Potential	Comments
1	Pre-demolition audit	1	1	1	<u>Mandatory reqs: Outstanding - 1 credit</u> <u>Credit requirements</u>

					Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of pre-demolition audit scope below: 1. Identification and quantification of the key materials where present on the project (BREEAM NC 2018 Table 10.3) 2. Potential applications and any related issues for the reuse and recycling of the key materials in accordance with the waste hierarchy 3. Opportunities for reuse and recycling within the same development 4. Identification of local reprocessors or recyclers for recycling of materials 5. Identification of overall recycling targets where appropriate 6. Identification of reuse targets where appropriate 7. Identification of overall landfill diversion rate for all key materials. The audit must be carried out at Concept Design stage by a competent person prior to strip-out or demolition works, guide the design, consider materials for reuse and set targets for waste management and engage all contractors in the process of maximising high grade reuse and recycling opportunities. Reference to the audit must be made in the Resource Management Plan (RMP). <u>Pre-assessment comments</u> Client to ensure pre-demolition audit is undertaken prior to activities commencing on site. Responsibility - Waste Consultant/Project Manager
2	Construction resource efficiency	3	2	3	<u>Credit requirements</u> Prepare a compliant Resource Management Plan (RMP) which includes: 1. A target benchmark for resource efficiency, i.e. m of waste per 100m or tonnes of waste per 100m 2. Procedures and commitments to minimise non-hazardous waste in line with the target benchmark 3. Procedures to minimise hazardous waste 4. A waste-minimisation target and details of waste minimisation actions to be undertaken 5. Procedures to estimate, monitor, measures and report on hazardous and non-hazardous site waste and demolition waste, where relevant, arising from work carried out by the principal contractor and all subcontractors. Waste data obtained from licensed external waste contractors needs to be reliable and verifiable, e.g. using data from EA/SEPA/EA Wales/NIEA waste return forms or from a PAS402 compliant company 6. Monthly reporting of all construction waste data throughout the project checked against what would be expected based on the stage of the project, invoices, etc., to validate completeness of waste reporting data

					7. Procedures to sort, reuse and recycle construction waste into defined waste groups, either on site or through a licensed external contractor 8. Procedures to review and update the plan 9. The name or job title of the individual responsible for implementing the above. Achieve credits based on the amount of waste produced per 100m² of GIFA: One credit - <=13.3 m³ or <=11.1 tonnes Two credits - <=7.5 m³ or <=6.5 tonnes Three credits - <=3.4 m³ or <=3.2 tonnes <u>Pre-assessment comments</u> The contractor will be required to implement a Resource Management Plan and target waste quantities to achieve 2 credits. Once the principal contractor is appointed, they will be able to confirm whether additional credits are considered feasible. Client to share internal targets. To be included in contractor requirements Responsibility - Project Manager/Principal Contractor
3	Diversion of resources from landfill	1	1	1	<u>Credit requirements</u> Meet the diversion from landfill benchmarks below for non-hazardous construction waste and demolition and excavation waste generated and sort waste materials into separate key waste groups. Non-demolition - 70% volume or 80% tonnage Demolition - 80% volume or 90% tonnage Excavation - not assessed <u>Pre-assessment comments</u> The contractor will be required to divert materials from landfill in line with the BREEAM criteria. To be included in contractor requirements. Responsibility - Project Manager/Principal Contractor
e1	Construction resource efficiency/Diversion of resources from landfill	1	0	0	<u>Credit requirements</u> Meet the exemplary level benchmarks detailed below. Ensure all key waste groups from the EWC are included in the Resource Management Plan. Waste data obtained from licensed external waste contractors is reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS 402:2013 compliant company.

					Amount of waste produced per 100m² of GIFA - <=1.6m³ or <=1.9 tonnes Waste diverted from landfill: Non-demolition - 85% volume or 90% tonnage Demolition - 85% volume or 95% tonnage Excavation - 95% volume or 95% tonnage <u>Pre-assessment comments</u> Not currently targeted - Once the principal contractor is appointed, they will be able to confirm whether additional credits are considered feasible. Responsibility - Project Manager/Principal Contractor
Wst 02 - Use of recycled and sustainably sourced aggregates					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite				<u>Credit requirements</u> Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of pre-demolition audit scope below: 1. Identification and quantification of the key materials where present on the project (BREEAM NC 2018 Table 10.3) 2. Potential applications and any related issues for the reuse and recycling of the key materials in accordance with the waste hierarchy 3. Opportunities for reuse and recycling within the same development 4. Identification of local reprocessors or recyclers for recycling of materials 5. Identification of overall recycling targets where appropriate 6. Identification of reuse targets where appropriate 7. Identification of overall landfill diversion rate for all key materials. The audit must be carried out at Concept Design stage by a competent person prior to strip-out or demolition works, guide the design, consider materials for reuse and set targets for waste management and engage all contractors in the process of maximising high grade reuse and recycling opportunities. Reference to the audit must be made in the Resource Management Plan (RMP). <u>Pre-assessment comments</u> Client to confirm once pre-demolition audit has been produced.

					Responsibility - Waste Consultant/Project Manager
1	Project Sustainable Aggregate points	1	0	0	<u>Credit requirements</u> Identify all aggregate uses and types on the project and determine the quantity in tonnes for each identified use and aggregate type. Identify the region in which the aggregate source is located and Calculate the distance in kilometres travelled by all aggregates by transport type. One credit can be achieved where the project sustainable aggregate points achieved are between 3.5 and 6 once entered into the Wst 02 calculator. <u>Pre-assessment comments</u> This credit has not been targeted at this stage - the design team has confirmed that the availability of local aggregate sources is currently unknown and would require additional input from the principal contractor once appointed. Responsibility - Structural Engineer
e1	Project Sustainable Aggregate points	1	0	0	<u>Credit requirements</u> An exemplary credit can be achieved where the project sustainable aggregate points achieved are greater than 6 once entered into the Wst 02 calculator. <u>Pre-assessment comments</u> This credit has not been targeted at this stage - additional input required from the principal contractor once appointed. Responsibility - Structural Engineer
Wst 03 - Operational waste					
	Credit	Available	Targeted	Potential	Comments
1	Operational waste	1	1	1	<u>Mandatory reqs: Excellent - 1 credit Outstanding - 1 credit</u> <u>Credit requirements</u> Provide a dedicated space for the segregation and storage of operational recyclable waste generated that is clearly labelled, accessible to both facilities managers and for collection and removal, and of a capacity appropriate to building type, size and predicted volumes of waste. The specified or installed operational waste facilities are compliant in area for the size of the building (2m² for general waste and 2m² for recyclable waste per 1000m² NIA). Where there are large consistent waste streams anticipated, the follow would be required where applicable (If they are not required, this should be confirmed in writing); Static waste compactors or balers; situated in a service area or dedicated waste management space

					- Vessels for composting suitable organic waste OR adequate spaces for storing segregated food waste and compostable organic material for collection and delivery to an alternative composting facility - A water outlet provided adjacent to or within the facility for cleaning and hygiene purposes where organic waste is to be stored or composted on site. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. Architect to confirm location and size of specified area, and to ensure suitable space is provided for the future inclusion of a waste compactor or baler as required. Responsibility - Architect/Client
Wst 05 - Adaptation to climate change					
	Credit	Available	Targeted	Potential	Comments
1	Resilience of structure, fabric, building services and renewables installation	1	1	1	<u>Credit requirements</u> Climate change adaptation strategy appraisal required before end of RIBA Stage 2. Conduct a climate change adaptation strategy appraisal using a systematic risk assessment and develop recommendations during Concept Design to mitigate potential climate risk. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes: - Hazard identification - Hazard assessment - Risk estimation - Risk evaluation - Risk management. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. Design team to complete templates provided to outlined early stage recommendations for incorporating adaptation to climate change initiatives within the developed design. Responsibility - Architect/MEP/Project Manager
e1	Responding to climate change	1	0	0	<u>Credit requirements</u> Demonstrate a holistic approach to the design and construction of the building's life cycle to mitigate against the impacts of climate change. Achieve the first credit plus:

					Hea 04 Thermal comfort - Criterion 6 - Prevent increasing risks of overheating. Ene 01 Reduction of energy use and carbon emissions - A minimum of six credits - Maximise energy efficiency to tackle likely energy demand and minimise resultant carbon emissions. Ene 04 Low carbon design - The passive design analysis credit - Maximise opportunities to avoid unnecessary carbon emissions. Wat 01 Water consumption - A minimum of three credits - Minimise water demand in periods of drought. Mat 05 Designing for durability and resilience - Criteria 2-4 - Avoid increased risks of deterioration and higher maintenance demands. Pol 03 Flood and surface water management - Flood resilience: a minimum of one credit and Surface water runoff: two credits - Minimise the risks of increased flood risk and surface water run-off affecting the site or others. <u>Pre-assessment comments</u> Not currently targeted. At present, it is not possible to confirm whether 6 credits will be achieved under Ene 01 for the energy performance of the development. In addition, the surface water run-off volume credit is to be confirmed as feasible under credit issue Pol 03. Responsibility - Architect/MEP/Project Manager/Structural Engineer/Drainage Engineer
Wst 06 - Design for disassembly and adaptability					
	Credit	Available	Targeted	Potential	Comments
1	Design for disassembly and functional adaptability -recommendations	1	1	1	<u>Credit requirements</u> Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design. Develop recommendations or solutions based on the study, during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation. <u>Pre-assessment comments</u> The design team has confirmed that the credit is viable to target. Design team to complete templates provided to outlined early stage recommendations for incorporating future disassembly and functional adaptation initiatives within the developed design. Responsibility - Architect/MEP/Structural Engineer

2	Disassembly and functional adaptability – implementation	1	1	1	<u>Credit requirements</u> Provide an update, during Technical Design, on how the recommendations or solutions proposed by Concept Design have been implemented, where practical and cost effective. The implementation will be specific to the building and scope of the project, but may include: - Options for multiple building uses and area functions based on design details, e.g. modularity. - Routes and methods for major plant replacement, e.g. networks and connections have flexibility and capacity for expansion. - Accessibility for local plant and service distribution routes, e.g. detailed information on building conduits and connections infrastructure. - The potential for the building to be extended, horizontally or vertically. Develop and produce a Building Adaptability and Disassembly Guide to communicate the characteristics allowing functional adaptability and disassembly to prospective occupiers. <u>Pre-assessment comments</u> Team confirmed credit is viable to target. To be included in contractors' requirements. Responsibility - Architect/MEP/Structural Engineer
		10	8	9	Standard Waste Credit Total
		3	0	0	Exemplary Waste Credit Total
		10	5.60	6.30	% Waste Total (Standard + Exemplary)
Land Use & Ecology					
LE 01 - Site selection					
	Credit	Available	Targeted	Potential	Comments
1	Previously occupied land	1	0	0	<u>Credit requirements</u> Demonstrate that >75% of the building footprint is developed on previously occupied land (non-greenfield). <u>Pre-assessment comments</u> This credit is not viable to target - the proposed development will not sit on previously developed land. Responsibility - Architect

2	Contaminated land	1	0	1	<u>Credit requirements</u> A contaminated land professional undertakes a site investigation, risk assessment and appraisal, which deems that land within the development footprint to be affected by contamination. This report identifies: • The degree of contamination • The contaminant sources or types • The options for remediating sources of contamination which present an unacceptable risk. The client or principal contractor confirms that a remediation strategy will be implemented, in line with the report. <u>Pre-assessment comments</u> Credit identified as a potential item pending client confirmation of site contamination, and the extent of any required remediation. Responsibility - Geo-environmental Consultant/Project Manager
LE 02 - Ecological risks and opportunities					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite - Statutory obligations				<u>Credit requirements</u> The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. <u>Pre-assessment comments</u> Credit viable to target - a suitably qualified ecologist has been appointed during Stage 1. Responsibility - Ecologist/Project Manager/Principal Contractor
1	Survey and evaluation/Determining ecological outcomes	2	2	2	<u>Credit requirements</u> Route 1 The site is evaluated using the BREEAM Ecological Risk Evaluation Checklist (Guidance Note 34) confirming that the Foundation route can be used. Route 2 A Suitably Qualified Ecologist (SQE) carries out a survey and evaluation for the site at RIBA Stage 1 to influence site preparation works, layout and, where necessary, strategic planning decisions. This survey will establish the ecological baseline and examine risks and enhancement opportunities.

					Recommendations and data collected from the survey and evaluation are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works, which can support ecological features. Achieve Survey and evaluation credit. The project team liaise and collaborate with representative stakeholders early enough to influence key planning decisions, and follow a mitigation and enhancement hierarchy as follows: • Avoidance • Protection • Reduction or limitation of negative impacts • On site compensation and • Enhancement, considering the capacity and feasibility within the site, or where viable, off-site. <u>Pre-assessment comments</u> Team confirmed credit is viable to target. Preliminary Ecological Appraisal will be conducted as part of the planning submission. Responsibility - Ecologist/Project Manager
e1	Wider site sustainability - Exemplary level criteria	1	0	0	<u>Credit requirements</u> Wider sustainability related activities and potential ecosystem service benefits are considered as part of determining the optimal ecological outcomes for the site. These include provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; economic value such as tourism, and cultural and social services such as health and wellbeing, recreational, spiritual, religious and other non-material benefits. Achieve the credits of the assessment issues outlined below: 1. Hea 07 Safe and healthy surroundings - Both credits 2. Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution' 3. Pol 05 Reduction of noise pollution. <u>Pre-assessment comments</u> Not currently targeted - this will be discussed further with the project ecologist once the associated works have been progressed.

					Responsibility - Ecologist/Landscape Architect/Drainage Engineer
LE 03 - Managing impacts on ecology					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite“ Ecological risks and opportunities				<u>Credit requirements</u> LE 02 credits have been achieved.
1	Planning and measures on-site	1	1	1	<u>Credit requirements</u> Further planning to avoid and manage negative ecological impacts on-site is carried out at RIBA Stage 2 to influence the concept design and design brief as well as site preparation planning. On-site measures for managing negative ecological impacts during site preparation and construction are implemented in-practice (e.g. mitigation measures to protect existing ecological features). This is based upon the input from the project team in collaboration with representative stakeholders and data collated as part of LE 02. <u>Pre-assessment comments</u> Team confirmed credit is viable to target. Client to confirm once preliminary ecology appraisal and supporting information is available. Meeting minutes required confirming that ecology was considered within planning decisions. Responsibility - Ecologist/Project Manager
2	Managing negative impacts	2	1	2	<u>Credit requirements</u> Achieve Planning and measures on site credit above. Route 1 Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy so that there is no overall loss of ecological value as a result of the development. Route 2 Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the ecologist’s recommendations so that there is no overall loss (two credits) or loss has been minimised (one credit) of ecological value as a result of the development. The mitigation hierarchy is: 1. Avoidance 2. Protection

					3. Reduction or limitation of negative impacts 4. On site compensation and 5. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site. <u>Pre-assessment comments</u> Team confirmed credit is viable to target. Preliminary ecological appraisal will be produced to support planning application. Responsibility - Ecologist
LE 04 - Ecological change and enhancement					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite - Managing negative impacts on ecology				<u>Credit requirements</u> At least one credit has been achieved for LE 03 - Managing negative impacts.
1	Change and enhancement of ecology / Ecological enhancement	1	1	1	<u>Credit requirements</u> Route 1 Locally relevant ecological measures have been implemented that enhance the site's ecological value. The measures adopted are based on: - Recommendations from recognised "local" ecological expertise and specialist input and guidance. - Input from the project team in collaboration with representative stakeholders and data collated as part of "Determining ecological outcomes" in LE 02. Route 2 Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the "Determining ecological outcomes" in LE 02. Measures are implemented in the following order: - On site, and where this is not feasible, - Off site within the Zone of Influence. Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site. <u>Pre-assessment comments</u>

					Team confirmed credit is viable to target. Client to confirm BNG target once this has been developed for the scheme. Responsibility - Ecologist
2	Change and enhancement of ecology	3	1	3	<u>Credit requirements</u> Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - Calculation Methodology Route 2 by completing the Change in ecological value calculator. Credits available are: 1 credit - 75% and 94% - Minimising loss 2 credits - 95% and 104% - No net loss for the habitats assessed 3 credits - 105% and 109% - Net gain for the habitats assessed <u>Pre-assessment comments</u> Team confirmed credit is viable to target. 1 credits targeted, with an additional 2 credits identified as potential items - dependent on BNG outcomes Responsibility - Ecologist
e1	Change and enhancement of ecology - Exemplary level criteria	1	0	0	<u>Credit requirements</u> Requires a significant net gain (>110% change) in ecological value to be confirmed by the ecologist, in compliance with GN34. <u>Pre-assessment comments</u> Not currently targeted - >110% change in ecological value would be required to achieve this exemplary credit. Responsibility - Ecologist
LE 05 - Long term ecological management and maintenance					
	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite - Statutory obligations, planning and site implementation				<u>Credit requirements</u> The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. Route 1- Criterion 6 in LE 03 has been achieved. Route 2 - Criterion 8 in LE 03 has been achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been awarded.

					<u>Pre-assessment comments</u> Team confirmed compliance will be monitored. Responsibility - Ecologist/Project Manager/Principal Contractor
1	Management and maintenance throughout the project / Landscape and ecology management plan	2	2	2	Management and maintenance throughout the project Measures have been implemented to manage and maintain ecology throughout the project based on input from the project team in collaboration with representative stakeholders and data collated as part of the "Determining ecological outcomes" in LE 02. These measures must monitor and review the effectiveness of the mitigation and enhancement measures in place for LE 03 & LE 04 to ensure they are implemented. A section on Ecology and Biodiversity will be included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site. This should include detailed management and maintenance plans as required by landscape and asset managers as well as relevant parts of the handover information for occupiers written in a format that encourages understanding and supportive behaviours. Landscape and ecology management plan A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS42020:2013 Section 11.1 covering at least the first five years after project completion as a minimum, including • Actions and responsibilities of relevant individuals prior to handover • The ecological value and condition of the site at handover and how this is expected to develop and change over time • Identification of opportunities for ongoing alignment with activities beyond the development project • Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts • Clearly defined and allocated roles and responsibilities for delivering the plan The landscape and management plan will be updated to support maintenance of the ecological value of the site. <u>Pre-assessment comments</u> Team confirmed credits are viable to target. Responsibility - Ecologist/Landscape Architect/Project Manager/Principal Contractor
		13	8	12	Standard Land Use & Ecology Credit Total

	2	0	0	Exemplary Land Use & Ecology Credit Total	
	16.95	9.20	13.80	% Land Use & Ecology Total (Standard + Exemplary)	
Pollution					
Pol 01 - Impact of refrigerants					
	Credit	Available	Targeted	Potential	Comments
1	Impact of refrigerants	3	1	2	<u>Credit requirements</u> Pre-requisite All systems with electric compressors comply with the requirements of BS EN 378:2016 (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice. Impact of refrigerant Calculate the direct effect life cycle CO₂ equivalent emissions (DELC) for heating and cooling systems. One credit - DELC of <=1000kgCO₂-eq/kW cooling and heating capacity Two credits - DELC of <=100kgCO₂-eq/kW cooling and heating capacity OR refrigerant GWP <=10 Leak detection All systems are hermetically sealed or only use environmentally benign refrigerants. Systems that are not hermetically sealed have a permanent automated refrigerant leak detection system, that is robust and tested, and capable of continuously monitoring for leaks OR automated diagnostic procedure. <u>Pre-assessment comments</u> 1 credit DELC: MEP confirmed credit is viable to target - refrigerants not yet specified . Leak detection system to be confirmed - identified as a potential item. Responsibility - MEP
Pol 02 - Local air quality					
	Credit	Available	Targeted	Potential	Comments
1	Local air quality	2	2	2	<u>Credit requirements</u> All heating and hot water is supplied by non-combustion systems (electrical heating and hot water) for 2 credits. Where combustion systems <i>are</i> installed emissions from these systems are not to exceed the levels set in Table 12.4 and

					Table 12.5.2 of the BREEAM NC 18 technical guide. <u>Pre-assessment comments</u> Team confirmed credit is viable to target - electric systems will be specified rather than combustion based systems. Responsibility - MEP
Pol 03 - Flood and surface water management					
	Credit	Available	Targeted	Potential	Comments
1	Flood resilience	2	2	2	<u>Credit requirements</u> Pre-requisite An appropriate drainage consultant is appointed to carry out and demonstrate the development's compliance with all criteria. Flood resilience As part of the initial masterplan a flood Risk Assessment has been prepared (which must not pre-date initial site construction works by greater than 5 years) that confirms the risk of flooding from all sources, for the site (1 credit for medium/high, 2 credits for low risk). An updated FRA is produced at a later stage or the flood risk should be confirmed to have not changed. Measures to mitigate flood risk shall be implemented should it be confirmed there is a medium/high flood risk. <u>Pre-assessment comments</u> 2 credits deemed feasible based on the site being located within a low floor risk zone. To be confirmed once the Flood Risk Assessment report is available. Responsibility - Flood Risk Consultant
2	Surface water run-off	2	2	2	<u>Credit requirements</u> Pre-requisite Surface water drainage is bespoke, by the Drainage consultant, and takes account of specific site requirements and man-made environment. Surface water run-off - rate The change in impermeable area should be identified and drainage measures are identified accordingly to ensure that the

					peak rate of run-off and run-off volume achieves the BREEAM requirements. For <u>brownfield sites</u>, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) shows a 30% improvement for the developed site compared with the pre-developed site. This should comply at the 1-year and 100-year return period events. For <u>Greenfield sites</u>, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events. Calculations made should provide an allowance for climate change and ensure a provision of a local drainage system whereby flooding will not occur in the event of failure. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) should all be put in place. Surface water run-off - volume Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND EITHER • Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for the 100-year 6-hour event, including an allowance for climate change • Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques OR (only where this cannot be achieved) • Justification from the appropriate consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options. • Drainage design measures are specified so that the post-development peak rate of run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options: • The pre-development one-year peak flow rate • The mean annual flow rate (Qbar) • 2L/s/ha. For the one-year peak flow rate, the one-year return period event criterion applies. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. For either option, above calculations must include an allowance for climate change; this should be made in accordance with
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					current best practice planning guidance. <u>Pre-assessment comments</u> 1 credit currently targeted based on achieving the surface water run-off rates prescribed in BREEAM. The feasibility of the surface water run-off volume credit will be confirmed once the Drainage Strategy report is available. Responsibility - Flood/Drainage Consultant
3	Minimising watercourse pollution	1	0	0	<u>Credit requirements</u> There is no discharge from the developed site for rainfall up to 5 mm. In areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques. Areas with a high risk of contamination or spillage of substances, such as petrol and oil, have separators (or an equivalent system) are installed in surface water drainage systems. Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system (i.e. shut-off valves). This is to prevent the escape of chemicals to natural watercourses in the event of a spillage or bunding failure. All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as the SuDS manual and other relevant industry best practice. They must be bespoke solutions taking account of the specific site requirements and natural or man-made environment of and surrounding the site. A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place. All external storage and delivery areas are designed and detailed in accordance with the current best practice planning guidance. <u>Pre-assessment comments</u> Not currently targeted - based on the drainage measures proposed for the development site, it is considered unlikely that it will be possible to prevent the first 5mm rainfall discharge from leaving the development site. Responsibility - Flood/Drainage Consultant
Pol 04 - Reduction of night time light pollution					
	Credit	Available	Targeted	Potential	Comments

1	Reduction of night time light pollution	1	1	1	<u>Credit requirements</u> The external lighting strategy is designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 2011. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes. Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements. <u>Pre-assessment comments</u> Credit considered viable - Client to confirm control system - i.e. timeclock and/or daylight sensor provision. Responsibility - MEP
Pol 05 - Reduction of noise pollution					
	Credit	Available	Targeted	Potential	Comments
1	Reduction of noise pollution	1	0	0	<u>Credit requirements</u> There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site. OR Where there are noise-sensitive areas within the assessed building or noise-sensitive areas within 800 m radius of the assessed site, a noise impact assessment compliant with BS 4142:2014 is carried out by a suitably qualified acoustician to determine existing background noise levels. Proposed noise levels must be at least 5dB lower than the background noise throughout the day and night. Where this cannot be achieved, attenuation measures will be provided. <u>Pre-assessment comments</u> Not targeted - The Noise Impact Assessment developed for the development planning application has confirmed that during the peak night-time hour, a +3dB exceedance above background levels at the houses directly opposite the HGV site entrance is predicted. Whilst it may be possible to make up an 8dB deficit with screening, the current layout of the site means there is nothing which can practicably be employed. Responsibility - Acoustician/MEP

	12	8	9	Standard Pollution Credit Total	
	0	0	0	Exemplary Pollution Credit Total	
	9	6	6.75	% Pollution Total (Standard + Exemplary)	
Innovation					
AI - Approved Innovation					
	Credit	Available	Targeted	Potential	Comments
e1	Approved innovations	1	0	0	
		0	0	0	Standard Innovation Credit Total
		1	0	0	Exemplary Innovation Credit Total
		1	0	0	% Innovation Total (Standard + Exemplary)