eight associates

Eight Associates
5th Floor
57a Great Suffolk Street
London
SE1 0BB

+44 (0) 20 7043 0418

www.eightassociates.co.uk
info@eightassociates.co.uk

Planning Report
Sustainability Statement
18 Vine Hill & 15-29 Eyre Street Hill

Document information

Prepared for:
Chris Penabad
Tower Eight

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Assessment information

Prepared by:
Rachel Crookes

Quality assured by:
Nathan Shelley

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Executive summary

The proposed project comprises reconfiguration and refurbishment on the existing office building at 18 Vine Hill & 15-29 Eyre Street Hill, London, EC1R 5DZ. The development is situated in the London Borough of Camden.

This Sustainability Statement will be provided as evidence to the London Borough of Camden, to demonstrate the development's holistic approach to sustainable design and construction. It summarises the contribution that the design will make to creating a more sustainable development, drawing on information provided by specialist consultants and design reports, and identifying key features intrinsic to achieving low carbon developments.

Key sustainability features within the development will include:

- The hotel and office areas of the development will achieve BREEAM 'Excellent' ratings.
- The development will reduce total carbon emissions by 37.8% over Building Regulations.
- A water consumption target of 90 litres/person/day through the implementation of water efficiency measures.
- A sustainable materials procurement policy and an efficient waste strategy on site.
- The inclusion of sustainable transport options such as safe cycle storage.
- Protection of ecology on site during construction and biodiversity enhancement measures.
- The implementation of health and wellbeing measures through design and operational procedures, including daylight, optimum indoor air quality and thermal comfort.

Key sustainability measures

In summary, the key measures incorporated to meet planning requirements and to achieve a low carbon development address the following key areas of sustainable design and construction:

- Energy and CO_2
- Adaptation to climate change
- Waste
- Water Efficiency
- Transport and connectivity
- Materials
- Health and wellbeing

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Introduction
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Sustainability introduction

The design team has significant experience in delivering schemes that are considered highly sustainable, either through application of formal green building rating systems, such as BREEAM as well as applying benchmarks from standards such as Passivhaus Design, and adopting precedents from industry exemplar sustainable developments.

The scheme will reflect the holistic nature of sustainable development to the London Borough of Camden. The development will provide high quality housing in an area of need, and will use local labour to boost employment. Health and wellbeing will be incorporated in the design by maximising daylighting, utilising healthy materials and contributing to the alleviation of fuel poverty in the region. The ecological value of the site will be maintained and protected. The development will enhance the ecological value of the site through measures such as native planting where feasible.

Description of development

The development is situated in the London Borough of Camden, at 18 Vine Hill & 15-29 Eyre Street Hill. The proposals are to retain and reconfigure the existing office building to enable the development of a micro hotel, with approximately 154-bedrooms, and an element of residential use (9 affordable units) on the existing car park.

The aspiration for the scheme is to significantly improve the existing site and its immediate environment by providing an efficient and inclusive development, which meets the policy recommendations of the London Borough of Camden.

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Policy Context
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National context: The 2008 Climate Change Act

The UK Government is committed to reducing the UK's carbon emissions by 80% over 1990 levels through the Climate Change Act 2008. Achieving truly sustainable design and construction and forwarding the green agenda within the construction industry across the UK is inherent to meeting these emission targets. This development aims to do both of these.

To help monitor carbon reductions and to plot progress being made for future plans and investments in the UK's low-carbon economy, intermediary targets have been established to ensure that the UK remains on course for meeting the 80% reduction by 2050.

Concurrent with reducing CO_2 emissions by 80% by 2050 is the European Climate Change Policy targets. It sets the objective of ensuring 20% of energy consumption is generated from renewable sources by 2020 whilst also reducing Europe's carbon footprint by 20%. Ensuring a fabric first approach with consideration to renewable energy production fits both the climate change act and the European Commission's 2020 targets for reducing greenhouse gas (GHG) emissions.

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Policy Context

Sustainability Statement

18 Vine Hill & 15-29 Eyre Street Hill

Local context: Camden Local Plan 2017

The Camden Local Plan, published in July 2017, sets out the Council's development planning policies. It responds to the Borough's unique characteristics and provides a comprehensive local policy framework to deliver Camden's future sustainable development. The Local Plan is supported by the supplementary planning document 'Camden Planning Guidance 3: Sustainability'.

The Camden Local Plan states a key strategic objective as 'investing in our communities to ensure sustainable neighbourhoods'. This is complimented by further objectives embedded in the Local Plan that define the sustainability vision of the council.

Chapter 8 'Sustainability and climate change' within the Camden Local Plan lists key sustainability objectives for the Borough. The following strategic objectives are relevant to this sustainability statement:

> 8.3 - Developments should reduce carbon dioxide emissions in line with the steps in the energy hierarchy. Developments should support this by ensuring the availability of sustainable transport options, optimising resource efficiency and encouraging sensitive energy use.
>
> 8.18 - All developments should optimise resource efficiency through waste and energy reduction, minimising materials required, opting for materials with low embodied carbon content and enabling low energy and water demands.
>
> 8.33 - All developments should adopt appropriate climate change adaptation measures such as green infrastructure and SuDS where feasible.
>
> 8.53 - Developments should incorporate water efficiency measures, consider the impact of development in areas prone to flooding and avoid harm to the water environment. Residential developments will be expected to meet the requirement of 110 litres per person per day including 5 litres for external water use. Refurbishments will be expected to meet BREEAM water efficiency credits.
>
> 8.84 - Construction should adopt sustainable design and construction methods including measures that minimise negative impacts on air quality.
>
> 8.90 - Developments should include facilities for the storage and collection of waste and recycling.

Further relevant sustainability objectives stated in the Camden Local Plan include the following:

> 4.84 - Developments should incorporate design principles that contribute to community safety and security.

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Policy Context

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Camden Planning Guidance 3 Sustainability

The Camden Planning Guidance (CPG) 3 Sustainability issued in March 2018 supports the policies in the Camden Local Plan and forms a supplementary planning document (SPD) for planning decisions. The CPG and additional guidance it provides on interpretation of the Local Plan sustainability policies is considered in this sustainability statement.

4.3 - All buildings are expected to reduce their carbon emissions by making improvements to the existing building. As a guide, at least 10% of the project cost should be spent on the improvements.

8.0 - Waste reduction measures should be incorporated. Primarily, this should involve the re-use of buildings where feasible. All developments should aim for at least 10% of the total value of materials to be derived from recycled and reused sources. Materials used in construction should be sourced responsibly and ensure they are safe to health.

10.0 - All developments should incorporate green and brown roofs where feasible.

11.0 - All developments are required to prevent or mitigate against flooding and manage drainage and surface water, Developments should not increase the risk of flooding.

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BREEAM Pre-Assessment

Sustainability Statement

18 Vine Hill & 15-29 Eyre Street Hill

Overview

BREEAM Pre-Assessments have been carried out for the development, as follows:

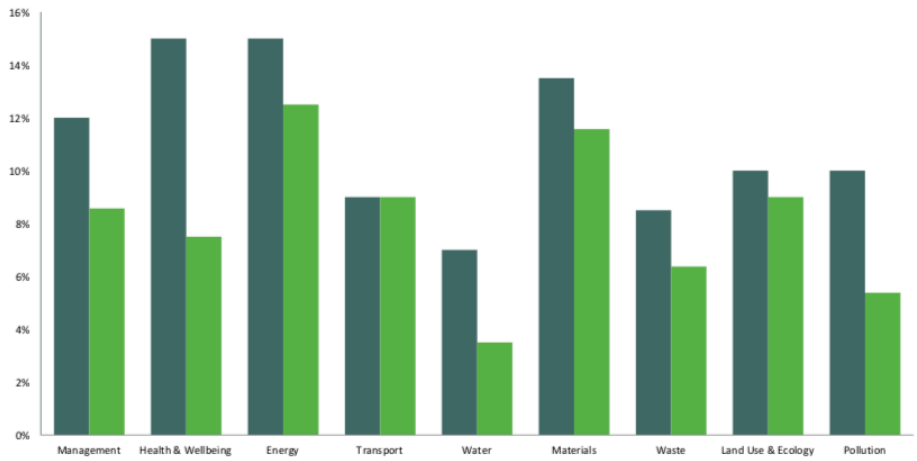
- BREEAM New Construction 2014 Assessment for the hotel.
- BREEAM Refurbishment & Fit-Out 2014 Assessment for the offices, covering both the refurbished and extended building areas in a single assessment (note that as the new extension to the office is less than 20% of the floor area of the existing building, the BREEAM Refurbishment & Fit-Out 2014 Manual states that the development may be covered by a single assessment).

The BREEAM Pre-Assessments report for the hotel is included in Appendix A and for the offices is included in Appendix B and a summary of each is provided below and overleaf.

Eight Associates typically recommend targeting a score of approximately 3-5% above the required score during the formal BREEAM stages. The BREEAM Pre-Assessment reports currently target scores of 73.3% (hotel) and 72.6% (offices). An action plan, to target potential additional credits, will be developed with the design team during the formal BREEAM assessment stages, to secure additional credits.

Hotel (BREEAM New Construction 2014)

The BREEAM New Construction 2014 Pre-Assessment (Appendix A) confirms a target score of 73.3%.



Environmental Section	No. credits available	Indicative no. credits Achieved	% credits achieved	Section Weighting	Indicative Section Score
Management	21	15	71.43%	12.00%	8.57%
Health & Wellbeing	18	9	50.00%	15.00%	7.50%
Energy	24	20	83.33%	15.00%	12.50%
Transport	11	11	100.00%	9.00%	9.00%
Water	8	4	50.00%	7.00%	3.50%
Materials	14	12	85.71%	13.50%	11.57%
Waste	8	6	75.00%	8.50%	6.37%
Land Use & Ecology	10	9	90.00%	10.00%	9.00%
Pollution	13	7	53.85%	10.00%	5.38%
Innovation	10	0	0.00%	N/A	0

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BREEAM Pre-Assessment

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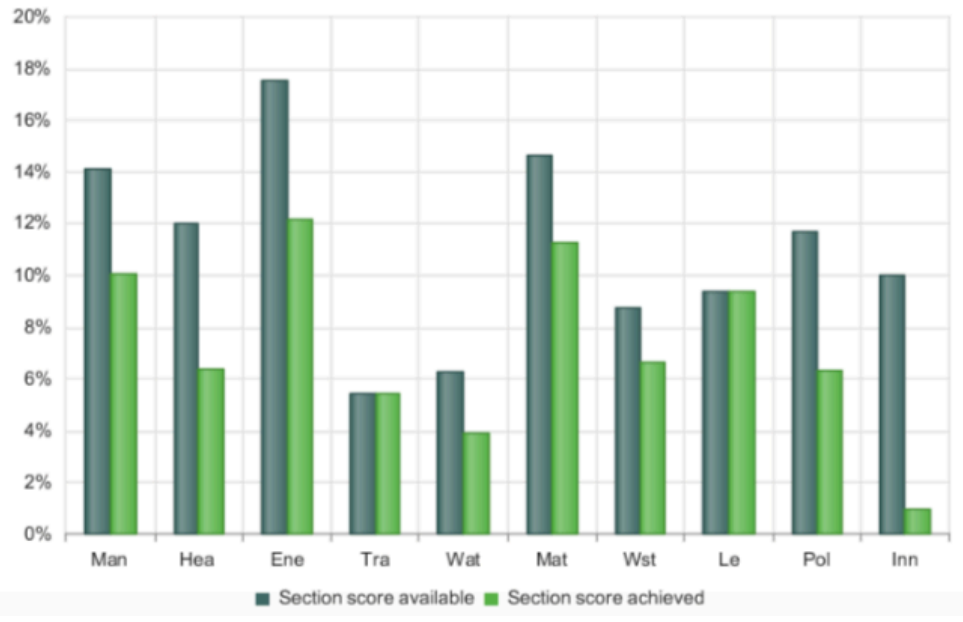
Offices (BREEAM Refurbishment & Fit-Out 2014)

The BREEAM Refurbishment & Fit-Out 2014 Pre-Assessment (Appendix B) confirms a target score of 72.6%.

BREEAM rating

BREEAM Rating					
	Credits available	Credits achieved	% Credits achieved	Weighting	Category score
Man	21.0	15.0	71.43%	14.09%	10.06%
Hea	15.0	8.0	53.33%	12.00%	6.40%
Ene	26.0	18.0	69.23%	17.57%	12.16%
Tra	7.0	7.0	100.00%	5.48%	5.47%
Wat	8.0	5.0	62.50%	6.26%	3.91%
Mat	13.0	10.0	76.92%	14.67%	11.28%
Wst	12.0	9.0	75.00%	8.80%	6.60%
Le	4.0	4.0	100.00%	9.39%	9.39%
Pol	13.0	7.0	53.85%	11.74%	6.32%
Inn	10.0	1.0	10.00%	10.00%	1.00%
Total	129.0	84.0	65.12%	-	72.61%
Rating	-	-	-	-	Excellent

Performance by environmental category



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Energy and CO_2 Sustainability Statement

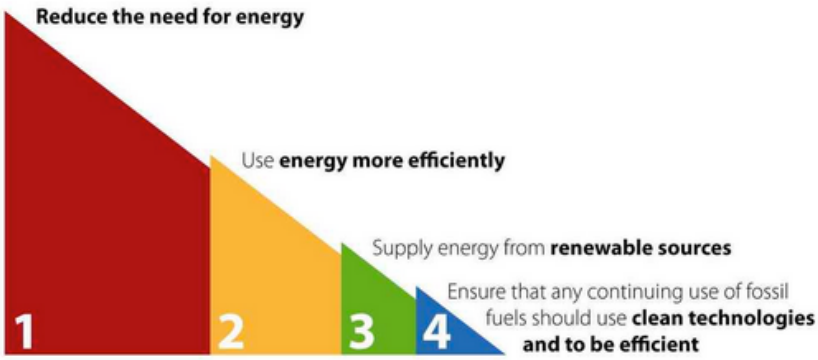
18 Vine Hill & 15-29 Eyre Street Hill

Energy strategy

The Energy Strategy report, issued in October 2018 by Applied Energy, summarises the energy strategy for 18 Vine Hill & 15-29 Eyre Street Hill. The development will reduce carbon emissions by 6.68% from the fabric energy efficiency measures described in the 'Be Lean' section, and will reduce total carbon emissions by 37.8% over Building Regulations with the further inclusion of low and zero carbon technologies (combined heat and power (CHP) and solar photovoltaic (PV) panels). The following section is a summary of the findings in accordance with the energy hierarchy and policy requirements.

The energy hierarchy

The proposed scheme has followed the energy hierarchy that is illustrated below:



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Construction Supplementary Planning Guidance (SPG), has been adopted for the scheme using a 'Lean', 'Clean', and Green' approach in addressing Camden's policy. A summary of the savings in carbon emissions are shown below:

Predicted CO2 Emissions Reduction from proposed measures

18 Vine Hill & 15-29 Eyre Street Hill	CO2 emissions ($kgCO2/m^2$)	CO2 emissions saving (%)
2013 Target Emissions Rate (TER)	56.90	-
Proposed scheme after energy efficiency	53.10	6.68
Proposed scheme after CHP	37.6	33.9
Proposed scheme after Renewables	35.40	37.8

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Energy and CO_2 Sustainability Statement

18 Vine Hill & 15-29 Eyre Street Hill

Energy efficiency strategies

Energy efficiency measures that will be applied to 18 Vine Hill & 15-29 Eyre Street Hill include:

- High insulation standards to reduce transfer of heat through the building fabric.
- Use of a gas boiler to provide heating for the development. Pipework will be fully insulated to minimise heat loss.
- High efficiency gas fired water heaters with an efficiency of over 91% will be utilised
- Envelope air tightness to reduce unnecessary air infiltration with predicted leakage set at $3m^3/(h.m^2)$ @ 50Pa.
- Daylighting and well-planned floor layouts to reduce the need for artificial lighting.
- High efficacy lighting greater than 70lm/W.
- New ventilation systems for guestrooms and front of house areas will incorporate heat recovery between the supply and extract ventilation paths.
- PIR (passive infra-red) detectors to control lighting in low occupancy back of house areas and bedroom corridors, and energy saving key card switch will be installed within each guestroom to control the lighting circuit and ensure that energy is not being wasted when rooms are unoccupied.

Thermal comfort and overheating risk

To minimise energy loss, the building fabric performance will be designed to achieve a balance between retaining heat during winter and allowing the building to dissipate heat during the summer months. Further measures to reduce overheating and the need for cooling include:

- Energy efficient design to minimise internal heat generation. Energy efficient appliances and lighting will be specified.
- Direct solar gains will be controlled through specifying appropriate location, size and type of windows. All glazing will be specified with a SHGC (solar heat gain coefficient) of no more that 0.4 to minimise heat gain.
- Reduced air permeability rate and maximised insulation levels.
- Passive ventilation measures will include openable windows. Curtains are to be provided to each room to provide independent occupant control to further reduce the level of heat gain into the space.

Low carbon technologies

A combined heat and power (CHP) system is proposed for the scheme. The CHP system will simultaneously generate electricity and heat from natural gas, whilst waste heat from the system will be recovered and used to supply a proportion of the heat demand. CHP systems can be beneficial by reducing electricity demand from the grid (therefore reducing transportation and distribution losses), improving the overall performance of the network and reducing costs on site.

An array of solar PV panels (approximately $52m^2$) will be installed on the roof of the scheme to generate electricity and offset the emissions that would otherwise be generated by the use of electricity from the grid. The PV panels will supply electricity to the building, as well as being are connected to the electricity grid, to export electricity during times where there is no demand on-site. PV systems require only daylight, not sunlight to generate electricity (although more electricity is generated with more sunlight), so electricity will still be generated in overcast or cloudy conditions.

Please see the Energy Strategy produced by Applied Energy for more information.

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Adaptation to Climate Change

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Climate change mitigation

The proposed development will use a CHP system and gas-fired boilers for heating, air source heat pumps (ASHPs) for cooling, and a combined natural and mechanical ventilation strategy to provide the required ventilation. Passive design measures, including openable windows and night-time cooling, are integrated into the design of the development. New ventilation systems for guestrooms and front of house areas will incorporate heat recovery between the supply and extract ventilation paths, removing heat from the building during summer months.

Flood map

The Environment Agency's flood map for planning is given below to show the location of the development within Flood Zone 1:

Flood risk and sustainable drainage

18 Vine Hill & 15-29 Eyre Street Hill is located within Flood Zone 1 of the Environment Agency's Flood Map for Planning. This is defined as an area with little or no risk to flooding where the annual probability of river, tidal and coastal flooding (with defences where they exist) is <0.1% i.e. less than 1 in 1,000 years. The site has also been assessed for all other sources of flooding and is considered to be at low risk.

The development will incorporate sustainable drainage systems (SuDS) including attenuation measures to reduce the surface water runoff rate from the site. A blue roof is to be incorporated into the development, covering an area of 278m^2. This system collects rainwater that falls directly onto the blue roof and from water diverted from the surrounding pitched roofs, and stores it during the rainfall period. Any excess water will be diverted away from the site using an outlet that restricts the discharge of stormwater to a slow flow rate. As the storm passes, water will continue to discharge from the roof at a controlled rate - this will reduce the impact the site has on the local public sewer network and will therefore result in a reduced risk of surface water flooding on and off the site.

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Waste
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Construction waste management

Resource efficiency will be promoted through effective and appropriate management of demolition and construction site waste.

In line with the waste hierarchy, during the construction phase, the approach will be the following:

- Use reclaimed materials;
- Use materials with higher levels of recycled content; and
- Use new materials.

For any demolition, the following approach will be adopted:

- Prioritise the on site reuse of demolition materials;
- Adopt on site recycling and, where required, use off site recycling; and
- The least preferred option – disposal to landfill.

A site waste management plan will be developed which adopts best practice benchmarks for resource efficiency, details procedures and commitments to minimise non-hazardous and hazardous waste at the design stage and monitors/measures waste production on site. The plan will apply to the location of the building.

The site waste management plan will also include procedures and commitments to sort and divert waste from landfill through the following:

- Re-use on site;
- Salvage/reclaim for re-use off-site;
- Return to supplier via a 'take-back' scheme;
- Recovery and recycling using an approved waste management contractor; and
- Compost.

The project has committed to diverting at least 85% by volume (90% by weight) of non-hazardous non-demolition waste generated by the project to be diverted from landfill.

Operational waste

In order to ensure suitable waste and recycling cycling provision, a dedicated refuse / recycling store will be provided for the hotel, office and residential user. The space provided is sized in line with the council's requirements, and at least 50% of the bins are to be allocated for recyclable materials

To minimise carrying distances, each of the refuse stores will be easily accessible from Eyre Street Hill for collections, with the hotel and residential stores located within approximately 5 metres of the footway. The storage space will provide inclusive access and maximise usability for building users.

Informative posters on recyclable materials will be displayed in the hotel and office waste stores to help to maximise the amount of material being recycled by staff. The office and hotel operators will also investigate other measures to educate staff on the recycling processes, such as including this information on staff information boards.

For further details on the scheme's waste strategy, please refer to the Delivery & Servicing Management Plan produced by RGP.

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Construction Management Sustainability Statement 18 Vine Hill & 15-29 Eyre Street Hill

Construction environmental management	Environmental impacts of the construction works will be mitigated as far as possible. This will include the incorporation of the following: • Contractor following environmental management system processes (under ISO14001), including the development of a construction environmental management plan (CEMP) specific to the sites. • Training and site induction of all site operatives. • Monitoring of energy, water and transport to and from site during construction. • Management of waste on site. • Following best practice pollution guidance from the Environment Agency. • Ensuring all site timber is responsibly sourced in line with the UK Government's Timber Procurement Policy. • Vehicle emissions would be minimised through the use of catalytic converters and the regular maintenance of vehicle engines. • Damping down of brick walls etc. during any building demolition. • Regularly inspecting and wet suppressing materials / soil stockpiles where necessary (including wind shielding or completely enclosing, storing away from site boundaries, and restricted height of stockpiles). • Appropriate orientating of material stockpiles. • Providing wheel washing and wet suppressing during the loading of wagons vehicles. • Covering vehicles carrying dry soil and other wastes. • Shielding of dust-generating construction activities. • Providing suitable site hoarding. • Restricting vehicle speeds on haul roads and other unsurfaced areas of the site. • Inspecting unsurfaced haulage routes, and wet suppressing should this be necessary (in times of prolonged dry periods).
Considerate constructors	The scheme will adopt the principles of the Considerate Constructors Scheme (CCS). The CCS scheme aims to recognise and encourage construction sites that are managed in an environmentally and socially considerate, responsible and accountable manner.

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Water Efficiency

Sustainability Statement

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Water management introduction	The development proposal recognises the need to create a scheme that is efficient and adaptable to future climatic scenarios.
Water conservation	The design team is committed to achieve a significant reduction in water use for the development over typical performance, equating to a water consumption target of 90 litres per person per day. To achieve this, the following sanitary ware will be specified: • WC total effect flush volume of 4.5l/min; • Showers with a nominal flow rate of 12l/min (at 1.5 bar pressure) • Baths 140l capacity • Taps with a maximum of 5l/min with low flow regulators (e.g. timed turn off, electronic, spray or aerated). Water consumption will be reduced through the use of water efficient components for all specified domestic water-consuming components (including low-flow showerheads and taps, dual flush toilets and low water consuming washing machines and dishwashers), water meters for each dwelling, water recycling systems where appropriate and flow control devices that regulate the supply of water to each facility according to demand. A permanent automated water leak detection system that alerts the building occupants to a major water leak on the mains water supply within the building and between the building and the utilities water meter will be installed.

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Transport and Connectivity

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Public transport	The 18 Vine Hill & 15-29 Eyre Street Hill site has a PTAL rating of 6b. It is located within 400 metres of four different bus stops serving nine different bus routes, providing a frequent service in both peak and off-peak hours. Farringdon Underground Station is within 600 metres and Chancery Lane Underground Station is within 800 meters. A site-specific Travel Plan has been developed for the scheme. Please see the Travel Plan by RGP for more information on the site's public transport provision.
Cycling provision	The development proposal is supported by the Transport Strategy, issued in October 2018 by RGP which recommends the provision of 45 secure, integrated and accessible spaces for cycle storage. These spaces will serve the residential, office and hotel units proposed in this planning application. The proposed cycle storage spaces exceed the Camden London Borough Council planning policy requirements. There are proposed and existing quietways servicing the Borough of Camden and include QW2, QW3 and QW12. The Cycle Superhighway route CS11 has been proposed and would service the London Borough of Camden. Information on all modes of public transport available for journeys to and from the site will be displayed on noticeboards within the development.
Accessibility and security	Creating a secure but fully accessible development is a key part of the proposed development. To ensure this is achieved, the design team will look to adopt where feasible, the key principles of "Secured by Design" within all elements of the scheme. An Architectural Liaison Officer (ALO) or a Crime Prevention Design Advisor (CPDA) will be consulted at an early design stage to incorporate the principles of 'Secured by Design (SBD)' within the development's design and layout.

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Materials
Sustainability Statement
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Materials and waste introduction

Sustainable material sourcing and waste management will be considered throughout the life of the building to ensure the scheme's environmental footprint is minimised as far as possible. The scheme will also ensure low embodied carbon throughout the procurement, transport and construction of building materials, together with end of life emissions.

Materials selection and sourcing

The design team has confirmed that efforts will be made to reuse materials where feasible, and that where required, new materials will be responsibly sourced. New construction materials will be selected, where feasible, with a low environmental impact. In addition, the project will aim for new materials to come from a recycled or reused source, including a high-recycled content in steel. Minimum standards apply to new timber, which must be sourced in accordance with the UK Government's Timber Procurement Policy.

In addition, all timber will be FSC / PEFC certified, all concrete will be BES 6001 certified and any other material will be ISO 14001 certified for both key processes and supply chain / extraction processes where feasible to do so.

The Green Guide for Specification is a reference tool, providing guidance on the relative environmental impacts for a range of different building elemental specifications, based on Life Cycle Assessment and the Environmental Profile Methodology. The design team will reference the Green Guide to Specification to help specify materials with a low environmental impact, where feasible. The design will incorporate at least 5 build-up elements will be A-C rated on the Green Guide.

Insulation specifications will eliminate hydrochlorofluorocarbons (HCFCs) and ozone depleting materials, wherever possible. All insulation specified will have a Global Warming Potential (GWP) of less than 5, and be responsibly sourced to have a low embodied impact.

Embodied carbon analysis

The development will utilise a number of opportunities to cut embodied carbon, as follows:

- The development will retain the historic fabric of the building where feasible.
- A materials efficiency strategy will be followed throughout the design, procurement and construction stages of the development, to ensure the scheme produces less waste on site. For example, adjustment of some sizes will be made to minimise offcuts of materials, and some bespoke materials will be developed off-site.
- Materials will be procured from the local area where possible, to reduce carbon through transportation.
- Materials and products with a higher recycled content will preferentially be procured where feasible, as these have a low embodied carbon.
- Consideration has been made to use timber as a low embodied carbon alternative to steel and concrete where possible.
- The design team has confirmed the Waste and Resources Action Programme (WRAP) guidance 'cutting embodied carbon in construction projects' will be followed.

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Health and Wellbeing
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Occupant wellbeing	The development has been designed to ensure the wellbeing of occupants in terms of levels of fresh air, thermal comfort and reduction of overheating, access to natural light, good lighting levels internally and externally, acoustic performance and access to safe drinking water. The building services strategy has been carefully considered in order to balance the need for energy-smart, low carbon technologies with the need for adequate and controllable ventilation, heating and cooling.
Internal air quality	The design team will specify only low volatile organic compounds (VOC) finishing products, including sealants and paints. All composite wood products will contain no added urea formaldehyde.
Daylight	The design has been developed to allow the use of daylight within the dwelling to be maximised as far as practical. The proposed windows are greater in size than the existing windows. The lighting strategy will include daylight sensors to optimise the use of natural sunlight.
Inclusive design	The principles of Lifetime Homes will be incorporated to achieve an inclusive built environment that enables users to maximise their individual abilities and enjoy safe and independent participation.

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Land Use and Ecology
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Protection of biodiversity	An ecologist carried out a Phase1 habitat survey and protected species assessment at the early stages of the project. No ecologically valuable habitats are present on the site, and there is negligible potential for protected species such as birds and bats. The proposed development will promote the protection of any existing ecological features from damage during site demolition and the completion of the construction works. • Confirm that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the design and construction process. • Implement working methods in line with best practice to manage dust and water run-off. • During the construction phase a Biodiversity Champion will be appointed to monitor and limit environmentally detrimental activities. They will also train the workforce on the project to raise their awareness of environmental impacts during construction and potential impacts on protected species.
Ecological enhancement	The design team will implement a number of ecological features within the scheme, to provide a net gain in ecological value across the site. New tree and shrub planting is to be incorporated into the development. This will create nesting opportunities for local bird and invertebrate populations in the area. Artificial nesting habitat for birds will additionally be installed in or on the façade of the building, The bird boxes are to be designed specifically for house sparrows, a Camden Biodiversity Action Plan priority species.

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Conclusion
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Conclusion

This Sustainability Statement has responded to the London Borough of Camden's local planning policy requirements.

In summary the scheme will adopt the following sustainable features:

- Reduce energy consumption by targeting improved u values and airtightness. Low energy lighting will be specified.
- Minimise embodied carbon through efficient design, procurement of materials from a local source, or with a high-recycled content.
- Be of high build quality, surpassing the minimum Building Regulations for water using low flow-rate fittings.
- Ensure all materials are responsibly sourced and of low environmental impact.
- Implement a site waste management plan.
- Protect and enhance the ecological value where feasible.
- Utilise sustainable transport, including access to public transport and inclusion of cycle facilities.
- Follow best practice policies in terms of air, water and ground pollution and appoint a contractor who will register for the Considerate Constructors Scheme.
- Incorporate health and wellbeing measures through design and operational procedures, including daylight, optimum indoor air quality and thermal comfort.

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Appendix A: Hotel BREEAM Pre-Assessment

Sustainability Statement

18 Vine Hill & 15-29 Eyre Street Hill

BREEAM® UK

www.breeam.com

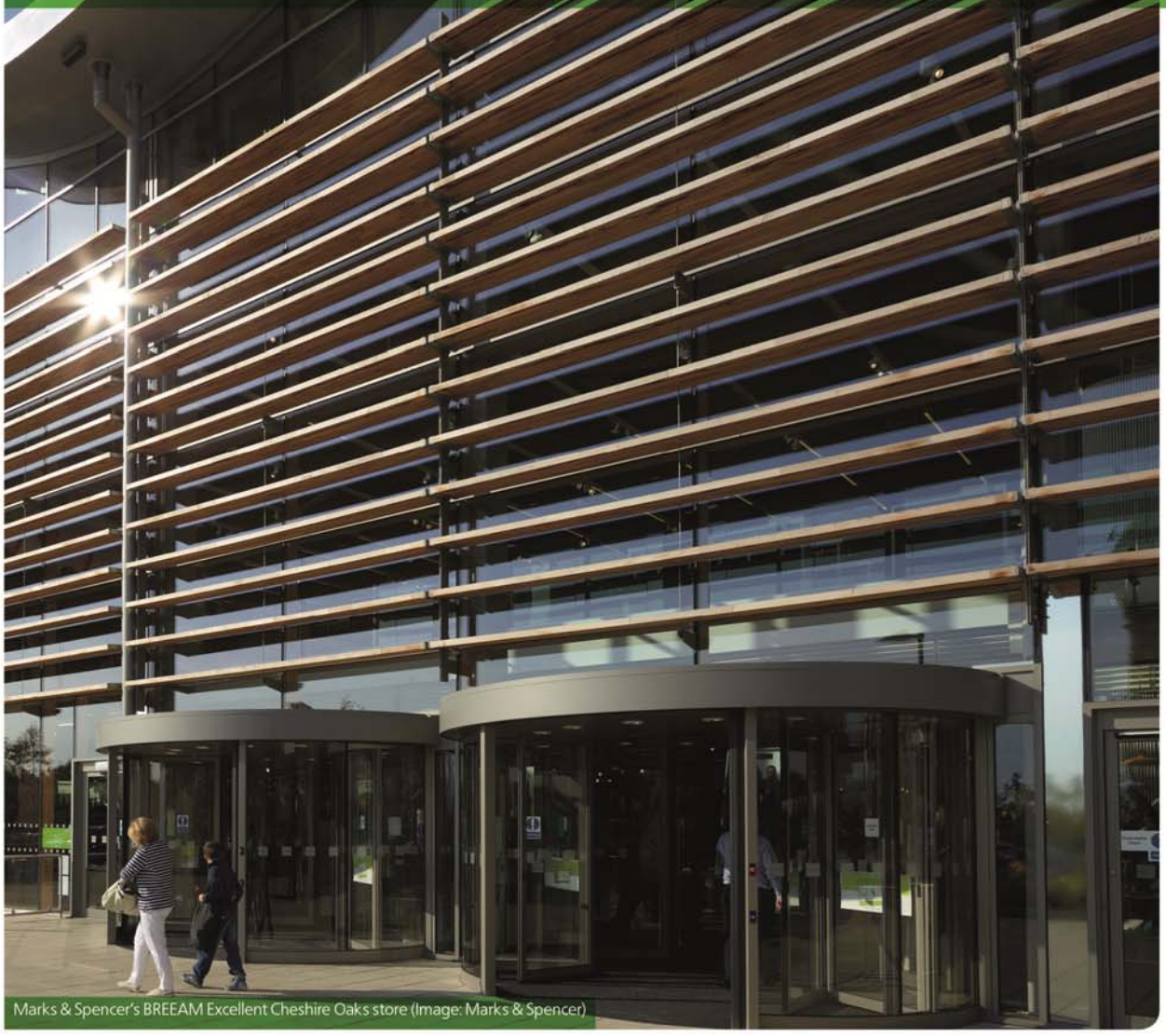
BREEAM New Construction - Pre-assessment 2014

Clerkenwell Hotel

Pre-assessment

Ragged School

12 June 2018 Assessment Report



Marks & Spencer's BREEAM Excellent Cheshire Oaks store (Image: Marks & Spencer)

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Assessment details

Assessment references

Registration number:	17089	**Date created:**	12/6/2018
Created by:	Stuart Daniels		
Architect name:	Piercy & Company		
Developer name:	Clerkenwell Lifestyle UK		
Property owner			

Site details

Site name:	Ragged School
Address:	18 Vine Hill
	Clerkenwell
Town:	London
County:	Not applicable
Post code:	EC1R 5DX
Country:	United Kingdom

Certificate details

The certificate will have the name of the architect (if entered above) and the name of the developer (from above).

Any other names to appear on the certificate are listed below:

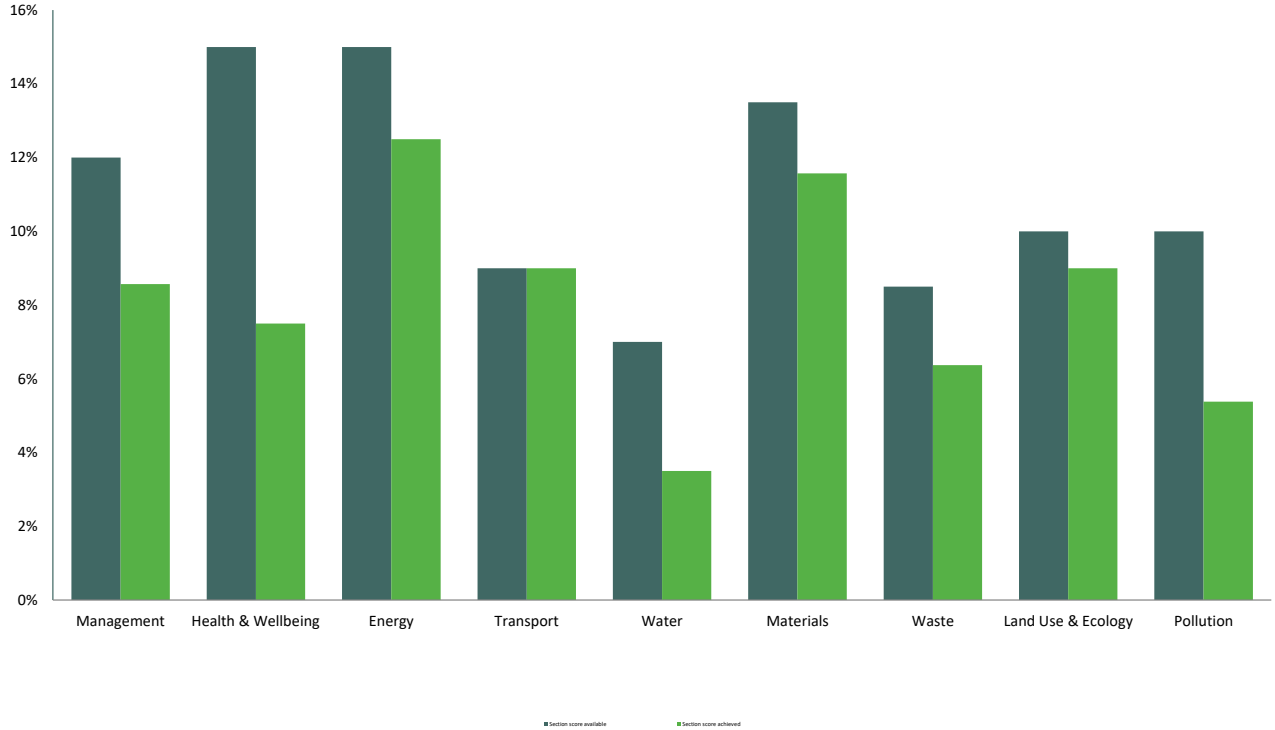
Name	Label

BREEAM UK New Construction 2014 Pre-Assessment Estimator: Indicative Rating & Building Performance

Overall Building Performance

Building name	Clerkenwell Hotel
Indicative BREEAM rating	Excellent
Indicative Total Score	73.3%
Min. standards level achieved	Outstanding level

Building Performance by Environment Section



Environmental Section	No. credits available	Indicative no. credits Achieved	% credits achieved	Section Weighting	Indicative Section Score
Management	21	15	71.43%	12.00%	8.57%
Health & Wellbeing	18	9	50.00%	15.00%	7.50%
Energy	24	20	83.33%	15.00%	12.50%
Transport	11	11	100.00%	9.00%	9.00%
Water	8	4	50.00%	7.00%	3.50%
Materials	14	12	85.71%	13.50%	11.57%
Waste	8	6	75.00%	8.50%	6.37%
Land Use & Ecology	10	9	90.00%	10.00%	9.00%
Pollution	13	7	53.85%	10.00%	5.38%
Innovation	10	0	0.00%	N/A	0

BREEAM UK New Construction 2014 Pre-Assessment Estimator: Assessment Issue Scoring

Building name	Clerkenwell Hotel
Building score (%)	73.30%
Building rating	Excellent
Minimum standards level achieved	Outstanding level

MANAGEMENT

Man 01 Project brief and design

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will stakeholder consultation (project delivery) take place?	Yes	1	1
Will stakeholder consultation (third party) take place?	Yes	1	1
Will a sustainability champion (design) be assigned?	No	1	0
Will a sustainability champion (monitoring progress) be assigned?	No	1	0

Total BREEAM credits achieved	2
Total contribution to overall building score	1.14%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Man 02 Life cycle cost and service life planning

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an elemental life cycle cost (LCC)analyses be carried out?	No	2	0
Will a component level LCC plan be developed?	No	1	0
Will the predicted capital cost be reported?	Yes	1	1
Expected capital cost of the project (if available)		£/m^2	

Total BREEAM credits achieved	1
Total contribution to overall building score	0.57%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Man 03 Responsible construction practices

No. of BREEAM credits available	6	Available contribution to overall score	3.43%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Is all site timber used in the project 'legally harvested and traded timber'?	Yes		
Will/does the principal contractor operate a compliant Environmental Management System?	Yes	1	1
Will a construction stage sustainability champion be assigned?	Yes	1	1
Will a considerate construction scheme be used by the principal contractor? (One credit where 'compliance' has been achieved. Two credits where 'compliance' is significantly exceeded.)	2	2	2
Will construction site impacts be metered/monitored?	Yes		
Will site utility consumption be metered/monitored?	Yes	1	1
Will transport of construction materials and waste be metered/monitored?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Key Performance Indicators: Construction site energy use

Energy consumption (total) - site processes		Information not available at design stage
Energy consumption (intensity) - site processes		Information not available at design stage
Distance (total) - materials transport to site		Information not available at design stage
Distance (total) -waste transport from site		Information not available at design stage
Energy consumption (total) - materials transport to site		Information not available at design stage
Energy consumption (total) - waste transport from site		Information not available at design stage
Energy consumption (intensity) - materials transport to site		Information not available at design stage
Energy consumption (intensity) - waste transport from site		Information not available at design stage

Key Performance Indicators: Construction site greenhouse gas emissions

Process greenhouse gas emissions (total) - site processes		Information not available at design stage
Greenhouse gas emissions (intensity) - site processes		Information not available at design stage
Greenhouse gas emissions (total) - materials transport to site		Information not available at design stage
Greenhouse gas emissions (total) - waste transport from site		Information not available at design stage
Greenhouse gas emissions (intensity) - materials transport to site		Information not available at design stage
Greenhouse gas emissions (intensity) - waste transport from site		Information not available at design stage

Key Performance Indicators: Construction site use of freshwater resources

Use of freshwater resource (total) - site processes		Information not available at design stage
Use of freshwater resource (intensity) - site processes		Information not available at design stage

Total BREEAM credits achieved	6
Total contribution to overall building score	3.43%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Man 04 Commisioning and handover

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will commissioning schedule and responsibilities be developed & accounted for?	Yes	1	1
Will a commissioning manager be appointed?	Yes	1	1
Will the building fabric be commissioned?	No	1	0
Will a building user guide be developed prior to handover?	Yes	1	1
Will a training schedule be prepared for building occupiers/managers?	Yes		

Total BREEAM credits achieved	3
Total contribution to overall building score	1.71%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Man 05 Aftercare

No. of BREEAM credits available	3	Available contribution to overall score	1.71%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will aftercare support be provided to building occupiers?	Yes	1	1
Will seasonal commissioning occur over 12months once substantially occupied?	Yes	1	1
Will a post occupancy evaluation be carried out 1 year after occupation?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Total BREEAM credits achieved	3
Total contribution to overall building score	1.71%

Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

HEALTH & WELLBEING

Hea 01 Visual Comfort

No. of BREEAM credits available	4	Available contribution to overall score	3.33%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the design provide adequate glare control for building users?	No	1	0
How many credits will be targeted for the daylighting criteria?	0	1	0
Will the design provide adequate view out for building users?	No	1	0
Will internal/external lighting levels, zoning and controls be specified in accordance with the relevant CIBSE Guides/British Standards?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	0.83%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Hea 02 Indoor Air Quality

No. of BREEAM credits available	5	Available contribution to overall score	4.17%
No. of BREEAM innovation credits available	2	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an indoor air quality (IAQ) plan be produced and building designed to minimise air pollution?	Yes	1	1
Will the building be designed to minimise the concentration and recirculation of pollutants in the building?	No	1	0

Will the relevant products be specified to meet the VOC testing and emission levels required?	Yes	1	1
Will formaldehyde and total VOC levels be measured post construction?	No	1	0
Will the building be designed to, or have the potential to provide, natural ventilation?	No	1	0
Will exemplary level criteria be met?		2	0

Key Performance Indicators: Indoor air quality

Concentration levels of formaldehyde	INA	Information not available at design stage
Total volatile organic compound (TVOC) concentration	INA	Information not available at design stage

Total BREEAM credits achieved	2
Total contribution to overall building score	1.67%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Hea 03 Safe containment in laboratories

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an objective risk assessment of proposed laboratory facilities' design be completed?			
Will the manufacture & installation of fume cupboards and containment devices meet best practice standards?			
Will containment level 2 & 3 labs meet best practice safety & performance criteria?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 04 Thermal comfort

No. of BREEAM credits available	3	Available contribution to overall score	2.50%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will thermal modelling of the design be carried out?	Yes	1	1
Will the building services system be adapted for a projected climate change scenario?	Yes	1	1
Will the modelling inform the development of a thermal zoning and control strategy?	Yes	1	1

Key Performance Indicators: Thermal comfort

Predicted Mean Vote (PMV)	INA
Predicted Percentage Dissatisfied (PPD)	INA

Total BREEAM credits achieved	3
Total contribution to overall building score	2.50%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 05 Acoustic Performance

No. of BREEAM credits available	4	Available contribution to overall score	3.33%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Credits	Credits available	Credits achieved
Will the building meet the appropriate acoustic performance standards and testing requirements for: a. Sound insulation b. Indoor ambient noise level c. Reverberation times?	1	4	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.83%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 06 Safety and Security

No. of BREEAM credits available	2	Available contribution to overall score	1.67%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Where external site areas are present, will safe access be designed for pedestrians and cyclists?	Yes	1	1
Will a suitably qualified security consultant be appointed and security considerations accounted for?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	1.67%
Total BREEAM innovation credits achieved	N/A

Minimum standard(s) level	N/A

Comments/notes:

ENERGY

Ene 01 Reduction of energy use and carbon emissions

No. of BREEAM credits available	12	Available contribution to overall score	7.50%
No. of BREEAM innovation credits available	5	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits achieved for this issue?	Define a target number of BREEAM credits achieved
Select the target number of BREEAM credits for the Ene01 issue:	8

Ene 01 Calculator

Country of the UK where the building is located		Confirm building regulation and version to be used:	

New Construction (Fully fitted)

Building floor area		m2
Notional building heating and cooling energy demand		MJ/m2yr
Actual building heating and cooling energy demand		MJ/m2yr
Notional building primary energy consumption		kWh/m2yr
Actual building primary energy consumption		kWh/m2yr
Target emission rate (TER)		kgCO2/m2yr
Building emission rate (BER)		kgCO2/m2yr
Building emission rate improvement over TER		
Heating & cooling demand energy performance ratio (EPR_{ED})		
Primary consumption energy performance ratio (EPR_{PC})		
CO_2 Energy performance ratio (EPR_{CO2})		
Overall building energy performance ratio (EPR_{NC})		

Where specified, please confirm the energy production from onsite or near site energy generation technologies	
Equivalent % of the building's 'regulated' energy consumption generated by carbon neutral sources and used to meet energy demand from 'unregulated' building systems or processes?	
Is the building designed to be 'carbon negative' ?	
If the building is defined as 'carbon negative' what is the total (modelled) renewable/carbon neutral energy generated and exported?	

Total BREEAM credits achieved	8
Total contribution to overall building score	5.00%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Ene 02 Energy monitoring

No. of BREEAM credits available	1	Available contribution to overall score	0.63%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a BMS or sub-meters be specified to monitor energy use from major building services systems?	Yes	1	1
Will a BMS or sub-meters be specified to monitor energy use by tenant/building function areas?			

Total BREEAM credits achieved	1
Total contribution to overall building score	0.63%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Ene 03 External lighting

No. of BREEAM credits available	1	Available contribution to overall score	0.63%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will external light fittings and controls be specified in accordance with the BREEAM criteria?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.63%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 04 Low carbon design

No. of BREEAM credits available	3	Available contribution to overall score	1.88%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will passive design measures be used in line with an analysis carried out during concept design stage (RIBA stage 2 or equivalent)?	Yes	1	1
Will free cooling measures be implemented in the whole building in line with the passive design analysis?	Yes	1	1
Will a LZC technology be specified in line with a feasibility study carried out by the completion of the Concept Design stage (RIBA Stage 2 or equivalent)?	Yes	1	1

KPI - Low and/or zero carbon energy generation

Total on-site and/or near-site LZC energy generation	INA	kWh/yr

Total BREEAM credits achieved	3
Total contribution to overall building score	1.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 05 Energy efficient cold storage

No. of BREEAM credits available	2	Available contribution to overall score	1.25%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved

Will the refrigeration system be designed, installed & commissioned in accrodance with BREEAM criteria?	Yes	1	1
Will the refrigeration system demonstrate a saving in indirect greenhouse gas emissions?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	1.25%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 06 Energy efficient transportation systems

No. of BREEAM credits available	3	Available contribution to overall score	1.88%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a transportation system analysis be carried out to determine and specify the optimum number, size and type of lifts that is most energy efficient?	Yes	1	1
Will the relevant energy-efficient features criteria be met?	Yes	2	2

Total BREEAM credits achieved	3
Total contribution to overall building score	1.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 07 Energy efficient laboratory systems

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Pre-requisite: Criterion 1 of Hea 03 - risk assessment of laboratory facilities			
Have the occupants' laboratory requirements & performance criteria been confirmed during the preparation of the initial project brief to minimise energy demand?			
Best Practice Energy Practices in Laboratories (table 27)			
Will the laboratory meet criteria item b) Fan power?			
Will the laboratory criteria item c) Fume cupboard volume flow rates?			
Will the lab meet item d) Grouping / isolation of high filtration/ventilation activities?			
Will the laboratory meet criteria item e) Energy recovery - heat?			
Will the laboratory meet criteria item f) Energy recovery - cooling?			

Will the laboratory meet criteria item g) Grouping of cooling loads?	
Will the laboratory meet criteria item h) Free cooling?	
Will the laboratory meet criteria item i) Load responsiveness?	
Will the laboratory meet criteria item j) Cleanrooms?	
Will the laboratory meet criteria item k) Diversity?	
Will the laboratory meet criteria item l) Room air-change rates?	

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 08 Energy efficient equipment

No. of BREEAM credits available	2	Available contribution to overall score	1.25%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria

Which of the following will be present and likely to be a/the major contributor to 'unregulated' energy use?	Present	Major impact
Ref A Small power and plug in equipment?	Yes	No
Ref B Swimming pool?	No	No
Ref C Communal laundry?	No	
Ref D Data centre?	No	
Ref E IT-intensive operation areas?	No	
Ref F Residential areas?	No	
Ref G Healthcare?	No	
Ref H Kitchen and catering facilities?	Yes	Yes

	Compliant	Credits available	Credits achieved
Will the significant majority contributor(s) to 'unregulated' energy use above meet the BREEAM criteria?	Yes	2	2

Total BREEAM credits achieved	2
Total contribution to overall building score	1.25%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 09 Drying space

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria Compliant? Credits available Credits achieved

Will internal/external drying space and fixings be provided?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

TRANSPORT

Tra 01 Public Transport Accessibility

No. of BREEAM credits available	5	Available contribution to overall score	4.09%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra01 issue assessment)	Other Building Type 2

Assessment Criteria	Compliant	Credits available	Credits achieved
Indicative public transport accessibility index (AI):	18.00	5	5
Will the building have a dedicated bus service?			N/A

AI	Indicative Accessibility Index for pre-assessment
0	Poor or no public transport provision
1	A single BREEAM compliant public transport node available
2	Some BREEAM compliant public transport nodes/services available
4	A selection of BREEAM compliant public transport nodes/services available
8	Good provision of public transport i.e. small urban centre / suburban area
10	Very Good provision of public transport i.e. small/medium urban centre
12	Excellent provision of public transport, i.e. medium urban centre
18	Excellent provision of public transport, i.e. large urban/metropolitan city centre

Total BREEAM credits achieved	5
Total contribution to overall building score	4.09%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 02 Proximity to Amenities

No. of BREEAM credits available	1	Available contribution to overall score	0.82%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the building be in close proximity of and accessible to applicable amenities?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.82%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 03 Cyclist facilities

No. of BREEAM credits available	2	Available contribution to overall score	1.64%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra03 issue assessment)	Other Building - transport type 2
How many compliant cycle storage spaces will be provided?	
What cyclist facilities will be provided?	Showers and changing facilities and lockers

Assessment Criteria	Compliant?	Credits available	Credits achieved
Cycle storage spaces	Yes	2	2
Cyclist facilities	Yes		

Total BREEAM credits achieved	2
Total contribution to overall building score	1.64%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 04 Maximum Car Parking Capacity

No. of BREEAM credits available	2	Available contribution to overall score	1.64%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra04 issue)	Other Building - transport type 2
Building's indicative Accessibility Index (sourced from issue Tra01)	18

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will BREEAM's maximum parking capacity criteria for the building type/Accessibility Index be met?	Yes	2	2

Total BREEAM credits achieved	2
Total contribution to overall building score	1.64%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 05 Travel Plan

No. of BREEAM credits available	1	Available contribution to overall score	0.82%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a transport plan based on site specific travel survey/assessment be developed?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.82%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

WATER

Wat 01 Water Consumption

No. of BREEAM credits available	5	Available contribution to overall score	4.38%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the BREEAM credits to be achieved for this issue?	Define a target % improvement over baseline sanitary fittings
What is the target for % reduction in potable water consumption for sanitary use in the building?	25% - two credits
Please select the calculation procedure used	

Standard approach data

Water Consumption from building micro-components	

Water demand met via greywater/rainwater sources	
Total net water consumption	
Improvement on baseline performance	

Key Performance Indicator - use of freshwater resource

Total net Water Consumption	
Default building occupancy	

Alternative approach data

Overall microcomponent performance level achieved	

Total BREEAM credits achieved	2
Total contribution to overall building score	1.75%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Wat 02 Water Monitoring

No. of BREEAM credits available	1	Available contribution to overall score	0.88%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will there be a water meter on the mains water supply to the building(s)?	Yes	1	1
Will metering/monitoring equipment be specified on the water supply to any relevant plant/building areas?	Yes		
Will all specified water meters have a pulsed output?	Yes		
If the site/building has an existing BMS connection, will all pulsed meters be connected to the BMS?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Wat 03 Water Leak Detection and Prevention

No. of BREEAM credits available	2	Available contribution to overall score	1.75%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a mains water leak detection system be installed on the building's mains water supply?	Yes	1	1
Will flow control devices be installed in each sanitary area/facility?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	0.88%
Total BREEAM innovation credits achieved	N/A

Minimum standard(s) level	N/A

Comments/notes:

Wat 04 Water Efficient Equipment

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Has a meaningful reduction in unregulated water demand been achieved?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

MATERIALS

Mat 01 Life Cycle Impacts

No. of BREEAM credits available	6	Available contribution to overall score	5.79%
No. of BREEAM innovation credits available	3	Minimum standards applicable	No

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define the number of Mat 01 credits achieved

Assessment Criteria

Predicted total Mat01 credits achieved	5
Predicted total Mat01 points achieved	
Number of building elements assessed	
Green Guide exemplary level compliant?	No
Has IMPACT compliant software been used?	No

Key Performance Indicator - embodied green house gas emissions by element	Total area of element m^2	Total impact $kgCO_2$ eq.	Area of element impact data relevant to m^2
External walls			

Windows			
Roof			
Upper floor construction			
Internal wall			
Floor finishes/coverings			

Key Performance Indicator - embodied green house gas emissions for building (assessed elements only)

Total embodied green house gas emissions for building (by assessed elements)	Missing data	$kgCO_2$ eq.		$kgCO_2$ eq./m^2
Proportion of applicable building elements that data reported covers				

Total BREEAM credits achieved	5
Total contribution to overall building score	4.82%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Mat 02 Hard Landscaping and Boundary Protection

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will ≥80% of all external hard landscaping and boundary protection achieve a Green Guide A or A+ rating?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Mat 03 Responsible Sourcing

No. of BREEAM credits available	4	Available contribution to overall score	3.86%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant	Credits available	Credits achieved
All timber and timber based products are 'Legally harvested and trader timber'	Yes		
Is there a documented sustainable procurement plan?	Yes	1	1
Percentage of available responsible sourcing of materials points achieved	36.00%	3	2

Please confirm the route used to assess Mat03	Route 3: Combination of routes

Total BREEAM credits achieved	3
Total contribution to overall building score	2.89%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Mat 04 Insulation

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria		Credits available	Credits achieved	
What is the building's targeted insulating index?	2.50	1	1	Note: An insulatio

Total BREEAM credits achieved	1
Total contribution to overall building score	0.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Mat 05 Designing for durability and resilience

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will suitable durability/protection measures be specified and installed to vulnerable areas of the building?	Yes	1	1
Will suitable durability/protection measures be specified and installed to exposed parts of the building?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Mat 06 Material efficiency

No. of BREEAM credits available	1	Available contribution to overall score	0.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will material efficiency measures be identified & implemented during all RIBA stages?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

WASTE

Wst 01 Construction Waste Management

No. of BREEAM credits available	4	Available contribution to overall score	4.25%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define a target number of BREEAM credits		
Select the number of BREEAM credits being targeted for issue Wst 01:	4	BREEAM Wst01 Innovation credits:	0

Assessment Criteria	Compliant?
Construction resource management plan	
Compliant Pre-demolition audit	
Does the excavation waste meet the exemplary level requirements?	

Key Performance Indicators - Construction Waste

Measure/units for the data being reported		
Non-hazardous construction waste (excluding demolition/excavation)		
Total non-hazardous construction waste generated		Note: At the pre-assessment stage this
Non-hazardous non-demolition const. waste diverted from landfill		Note: At this stage this will be a target b
Total non-hazardous non-demolition const. waste diverted from landfill		Note: At the pre-assessment stage this
Total non-hazardous demolition waste generated		Note: At this stage this will be a target b
Non-hazardous demolition waste diverted from landfill		Note: At this stage this will be a target b
Total non-hazardous demolition waste to disposal		Note: At the pre-assessment stage this
Material for reuse		Note: At this stage this will be a target b
Material for recycling		Note: At this stage this will be a target b
Material for energy recovery		Note: At this stage this will be a target b
Hazardous waste to disposal		Note: At this stage this will be a target b

Total BREEAM credits achieved	4
Total contribution to overall building score	4.25%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Wst 02 Recycled Aggregates

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Total
What is the target total % of high-grade aggregate that will be recycled/secondary aggregate?	0%

% of high-grade aggregate that is recycled/secondary aggregate - by application

Structural frame	
Bitumen/hydraulically bound base, binder and surface courses	
Building foundations	
Concrete road surfaces	
Pipe bedding	
Granular fill and capping	

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Wst 03 Operational Waste

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will operational recyclable waste volumes be segregated and stored?	Yes	1	1
Will static waste compactor(s) or baler(s) be specified where appropriate?	N/A		
Will vessel(s) for composting suitable organic waste where appropriate?	N/A		

Total BREEAM credits achieved	1
Total contribution to overall building score	1.06%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Wst 04 Speculative Floor and Ceiling Finishes

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Wst 05 Adaption to climate change

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	1	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a climate change adaptation strategy appraisal for structural and fabric resilience be conducted by the end of Concept Design (RIBA Stage 2 or equivalent)?	No	1	0
Will exemplary level criteria – Responding to adaptation to climate change be met?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Wst 06 Functional adaptability

No. of BREEAM credits available	1	Available contribution to overall score	1.06%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a building specific functional adaptation strategy appraisal be conducted by Concept Design (RIBA Stage 2 or equivalent) and will functional adaptation measures be implemented?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	1.06%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LAND USE & ECOLOGY

LE 01 Site Selection

No. of BREEAM credits available	2	Available contribution to overall score	2.00%

No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will at least 75% of the proposed development's footprint be located on previously occupied land?	Yes	1	1
Is the site deemed to be significantly contaminated?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	1.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LE 02 Ecological Value of Site and Protection of Ecological Features

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Ecological value of the land defined using	A Suitably Qualified Ecologist

Assessment Criteria	Compliant?	Credits available	Credits achieved
Can the land within the construction zone be defined as 'land of low ecological value'?	Yes	1	1
Will all features of ecological value surrounding the construction zone/site boundary be protected?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	2.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LE 03 Mitigating Ecological Impact

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Data sourced for calculating the change in ecological value from	Suitably Qualified Ecologist site survey of plant species

Assessment Criteria

What is the likely change in ecological value as a result of the sites development?	≥0 species (i.e. no negative change)	Plant species richn

Total BREEAM credits achieved	2
Total contribution to overall building score	2.00%

Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

LE 04 Enhancing Site Ecology

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved	
Will a suitably qualified ecologist be appointed to report on enhancing and protecting site ecology?	Yes	2	2	
Will the suitably qualified ecologist's general recommendations be implemented?	Yes			
What is the targeted/intended improvement in ecological value as a result of enhancement actions?	≥6 species (large positive change)			Plant species richr

Total BREEAM credits achieved	2
Total contribution to overall building score	2.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LE 05 Long Term Impact on Biodiversity

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a Suitably Qualified Ecologist be appointed to monitor/minimise impacts of site activities on biodiversity?	Yes	2	2
Will a landscape and habitat management plan be produced covering at least the first five years after project completion in accordance with British Standards?	Yes		
Number of applicable measures to improve biodiversity confirmed by SQE:	2		
Number of applicable measures implemented:	2		

Total BREEAM credits achieved	2

Total contribution to overall building score	2.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

POLLUTION

Pol 01 Impact of Refrigerants

No. of BREEAM credits available	3	Available contribution to overall score	2.31%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria		Credits available	Credits achieved
Refrigerant containing systems installed in the assessed building?	Yes		
Do all systems (with electric compressors) comply with the requirements of BS EN 378:2008 (parts 2 & 3) & where refrigeration systems containing ammonia are installed, the IoR Ammonia Refrigeration Systems Code of Practice?	No		
Global Warming Potential of the specified refrigerant(s) 10 or less?			
What is the target range Direct Effect Life Cycle CO2eq. emissions for the system?		kgCO2eq/kW coolth capacity	
Cooling/Heating capacity of the system		kW	
Will a refrigerant leak detection and containment system be specified/installed?			

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 02 NO_x Emissions

No. of BREEAM credits available	3	Available contribution to overall score	2.31%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

NO_x emission level - space heating		mg/kWh
NO_x emission level - cooling		mg/kWh

NOx emission level - water heating		mg/kWh
Does this building meet BREEAM's definition of a highly insulated building?		
Energy consumption: heating and hot water		kWh/m2 yr

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 03 Surface Water Run off

No. of BREEAM credits available	5	Available contribution to overall score	3.85%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
What is the actual/likely annual probability of flooding for the assessed site?	Low	2	2
Will a Flood Risk Assessment be undertaken?	Yes		
Will the site meet the BREEAM criteria for peak rate surface water run off?	Yes	1	1
Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge?	Yes	1	1
Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?	Yes	1	1

Total BREEAM credits achieved	5
Total contribution to overall building score	3.85%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 04 Reduction of Night Time Light Pollution

No. of BREEAM credits available	1	Available contribution to overall score	0.77%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the external lighting specification be designed to reduce light pollution?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.77%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 05 Noise Attenuation

No. of BREEAM credits available	1	Available contribution to overall score	0.77%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant	Credits available	Credits achieved
Will there be noise-sensitive areas/buildings within 800m radius of the development?	Yes	1	1
Will a noise impact assessment be carried out and, if applicable, noise attenuation measures specified?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.77%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

INNOVATION

Inn 01 Innovation

No. of BREEAM innovation credits available	10	Available contribution to overall score	10.00%
		Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Man 03 Responsible construction practices	No	1	0
Man 05 Aftercare	No	1	0
Hea 01 Visual Comfort	No	1	0
Hea 02 Indoor Air Quality	No	2	0
Ene 01 Reduction of energy use and carbon emissions	No	5	0
Wat 01 Water Consumption	No	1	0
Mat01 Life Cycle Impacts	No	3	0
Mat03 Responsible Sourcing of Materials	No	1	0

Wst01 Construction Waste Management	No	1	0
Wst02 Recycled Aggregates	No	1	0
Wst 05 Adaption to climate change	No	1	0

Number of 'approved' innovation credits achieved?	

Total BREEAM innovation credits achieved	0
Total contribution to overall building score	0.00%
Minimum standard(s) level	N/A

Comments/notes:

eight associates

Appendix B: Offices BREEAM Pre-Assessment

Sustainability Statement

18 Vine Hill & 15-29 Eyre Street Hill

BREEAM®

Code for a Sustainable Built Environment
www.breeam.com

BREEAM UK Refurbishment & Fit-out 2014 - Pre-assessment

Vine Hill - Office

Pre-assessment

Ragged School Office

07 June 2018 Assessment Report

PwC's BREEAM Outstanding rated One Embankment Place in London. Image Hofton + Crow.

bre

Assessment details

Assessment references

Registration number:	17089	**Date created:**	22/2/2018
Created by:	Stuart Daniels		
Architect name:	Piercy & Company		
Developer name:	Clerkenwell Lifestyle UK		
Property owner			

Site details

Site name:	Ragged School Office
Address:	18 Vine Hill
	Clerkenwell
Town:	London
County:	
Post code:	EC1R 5DX
Country:	United Kingdom

Certificate details

The certificate will have the name of the architect (if entered above) and the name of the developer (from above).

Any other names to appear on the certificate are listed below:

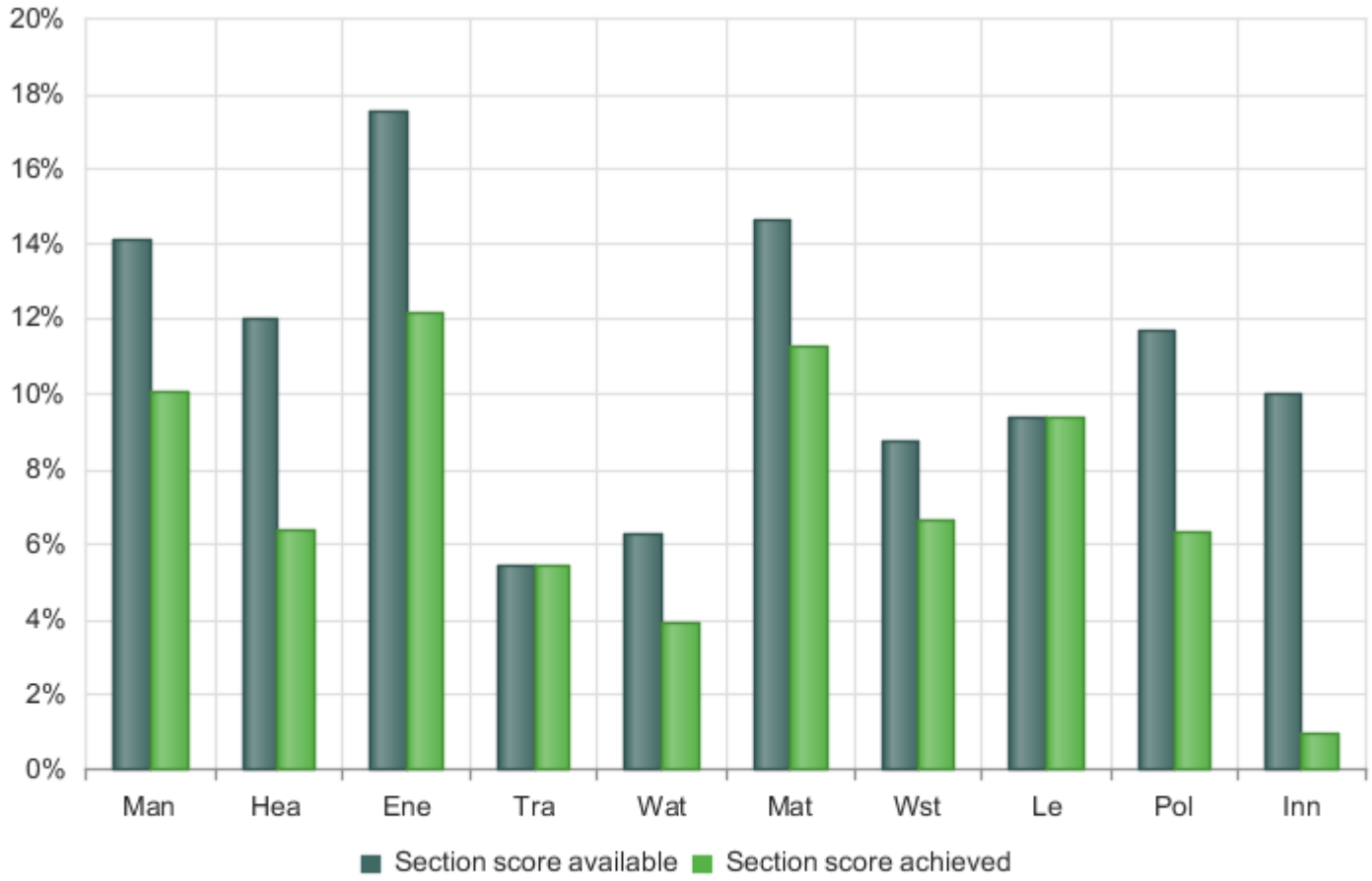
Name	Label

BREEAM rating

BREEAM Rating

	Credits available	Credits achieved	% Credits achieved	Weighting	Category score
Man	21.0	15.0	71.43%	14.09%	10.06%
Hea	15.0	8.0	53.33%	12.00%	6.40%
Ene	26.0	18.0	69.23%	17.57%	12.16%
Tra	7.0	7.0	100.00%	5.48%	5.47%
Wat	8.0	5.0	62.50%	6.26%	3.91%
Mat	13.0	10.0	76.92%	14.67%	11.28%
Wst	12.0	9.0	75.00%	8.80%	6.60%
Le	4.0	4.0	100.00%	9.39%	9.39%
Pol	13.0	7.0	53.85%	11.74%	6.32%
Inn	10.0	1.0	10.00%	10.00%	1.00%
Total	129.0	84.0	65.12%	-	72.61%
Rating	-	-	-	-	Excellent

Performance by environmental category



Issue scores

Please Note: X means the exemplary credit for the relevant issue

Management

Man 01	Man 02	Man 03	Man 03X	Man 04	Man 05	Man 05X
2	1	6	0	3	3	1

Health and Wellbeing

Hea 01	Hea 01X	Hea 02	Hea 03	Hea 04	Hea 05	Hea 06
1	0	1	N/A	3	2	1

Energy

Ene 01	Ene 01X	Ene 02	Ene 03	Ene 04	Ene 05	Ene 06	Ene 07	Ene 08	Ene 09
9	0	2	1	1	N/A	3	N/A	2	N/A

Transport

Tra 01	Tra 02	Tra 03	Tra 04	Tra 05
3	1	2	N/A	1

Water

Wat 01	Wat 01X	Wat 02	Wat 03	Wat 04
2	0	1	2	N/A

Materials

Mat 01	Mat 01X	Mat 03	Mat 03X	Mat 04	Mat 05	Mat 06
4	0	3	0	1	1	1

Waste

Wst 01	Wst 01X	Wst 02	Wst 02X	Wst 03	Wst 04	Wst 05	Wst 06
6	0	0	0	1	1	0	1

Land use and ecology

Le 2	Le 4	Le 5
1	1	2

Pollution

Pol 01	Pol 02	Pol 03	Pol 03X	Pol 04	Pol 05
0	0	5	0	1	1

Innovation

Inn 01	Inn 01X
N/A	0

Initial details

18 Vine Hill

Stage 1 filtering: Scope of the assessment

Part 1 : Fabric and structure : Yes

Part 2 : Core services : Yes

Part 3 : Local services : Yes

Part 4 : Interior design : No

Stage 2 filtering: Project specific filtering

Is the project a change of use? (e.g. change from office to a hotel) : No

Are transportation systems specified or present within the refurbishment or fit-out zone? (lifts, escalators, moving walks) : Yes, newly specified transportation systems

Are there laboratories present and if so what % of total building area do they represent : No laboratories present

Project Type : Major, whole building refurbishment

Laboratory containment area : No laboratories present

Is cold storage specified or present within the refurbishment or fit-out zone? : No

Are there new or existing landscaping areas within the refurbishment or fit-out zone and within developer control? : Yes - existing and new, or existing only

Are there any external areas within the refurbishment or fit-out zone and within developer control that can feasibly be enhanced in line with LE 04 : Yes

If the asset undergoing refurbishment or fit-out is part of a larger building, is the cooling generation plant centralised or localised? : Local

If the asset undergoing refurbishment or fit-out is part of a larger building, is the heating generation plant centralised or localised? : Local

Is Wat01 within the scope of the assessment in accordance with Table 42? : Yes

What is the building type? : Offices

Is this a speculative refurbishment? : No

If Industrial, does the building have office areas? : N/A

Does the building have or mitigate any unregulated water demand? e.g. irrigation or soft-landscaped areas requiring no irrigation, car washing, other significant process related : No

Does the building have unregulated energy demands from significantly contributing systems? : Yes

Is the project a simple building? : No

Does the building have external lighting within the scope of works? : Yes

Does the building have any existing or newly specified externally mounted plant? : Yes

If undertaking a Part 4 assessment, is there any equipment specified that requires commissioning (see Man04 CN13) : Yes

Historic building (listed building or building in a conservation area) : No

Is any new insulation specified? : Yes

Are high grade aggregates to be used in the refurbishment scheme? :

Category assessment

Management I Man

Man Management

Site : 18 Vine Hill

MAN 01 PROJECT BRIEF AND DESIGN	
Stakeholder consultation (project delivery) :	1
Stakeholder consultation (third party) :	1
Sustainability champion (design) :	0
Sustainability champion (monitoring progress) :	0

MAN 02 LIFECYCLE COST AND SERVICE LIFE PLANNING	
Elemental lifecycle cost :	0
Componnent level LCC plan :	0
Capital cost reporting :	1

MAN 03 RESPONSIBLE CONSTRUCTION PRACTICES	
Is all timber used in the project 'legally harvested and traded timber'? :	Yes
Environmental management :	1
Construction stage sustainability champion :	1
Considerate construction :	2
Exemplary level criteria :	No
Has the project achieve the minimum standard for an Excellent or Outstanding rating? :	Minimum standard for Excellent rating
Monitoring of refurbishment or fit-out site impacts :	2
Utility consumption :	Yes
Transport of construction materials and waste :	Yes

MAN 04 COMMISSIONING AND HANDOVER	
Commissioning and testing schedule and responsibilities :	1
Commissioning building services :	1
Testing and inspecting building fabric :	0
Handover :	1
Has criterion 9 been met? :	Yes

MAN 05 AFTERCARE	
Aftercare support :	1
Exemplary level criteria :	Yes
Seasonal commissioning :	1
Post occupancy evaluation :	1

Credits awarded : 15.0
Exemplary credits awarded : 1.0

Health and Wellbeing I Hea

Hea Health & Wellbeing

Site : 18 Vine Hill

HEA 01 VISUAL COMFORT	
Daylighting :	0
Exemplary level criteria :	No
View out :	0
Internal and external lighting :	1
HEA 02 INDOOR AIR QUALITY	
Indoor air quality plan :	1
Ventilation :	0
Potential for natural ventilation :	0
HEA 03 SAFE CONTAINMENT IN LABORATORIES - NA	
HEA 04 THERMAL COMFORT	
Thermal modelling :	1
Adaptation - for a projected climate change scenario :	1
Thermal zoning and controls :	1
HEA 05 ACOUSTIC PERFORMANCE	
Acoustic performance :	2
HEA 06 SAFETY AND SECURITY	
Security of site and building :	1
Credits awarded : 8.0	

Energy I Ene

Ene Energy

Site : 18 Vine Hill

ENE 01 ASSESSMENT OPTION	
Which option is being followed :	Option 1a simple estimate (whole building)

ENE 01 - OPTION 1A	
Credits :	9
Exemplary credits :	0

ENE 02 ENERGY MONITORING	
Sub-metering of major energy consuming systems :	1
Sub-metering of high energy load and tenancy areas :	1

ENE 03 EXTERNAL LIGHTING	
External lighting :	1

ENE 04 LOW CARBON DESIGN	
Passive design analysis :	0
Free cooling :	0
Low and zero carbon technologies :	1

ENE 05 ENERGY EFFICIENT COLD STORAGE - NA

ENE 06 ENERGY EFFICIENT TRANSPORTATION SYSTEMS	
Energy consumption :	1
Energy efficient measures :	2

ENE 07 ENERGY EFFICIENT LABORATORY SYSTEMS - NOTAPPLICABLE

ENE 08 ENERGY EFFICIENT EQUIPMENT	
Energy efficient equipment :	2

ENE 09 DRYING SPACE

Credits awarded : 18.0

Transport | Tra

Tra Transport

Site : 18 Vine Hill

TRA 01 SUSTAINABLE TRANSPORT SOLUTIONS

Sustainable transport options :	3

TRA 02 PROXIMITY TO AMENITIES

Proximity to amenities :	1

TRA 03 CYCLIST FACILITIES

Cycle storage :	1
Cylist facilities :	1

TRA 04 MAXIMUM CAR PARKING CAPACITY - NA

TRA 05 TRAVEL PLAN

Travel plan :	1

Credits awarded : 7.0

Water I Wat

Wat Water

Site : 18 Vine Hill

WAT 01 WATER CONSUMPTION

Water consumption :	2
Exemplary level criteria :	No

WAT 02 WATER MONITORING

Water monitoring :	1
Has criterion 1 been met? :	Yes

WAT 03 LEAK DETECTION

Leak detection system :	1
Flow control devices :	1

WAT 04 WATER EFFICIENT EQUIPMENT - NA

Credits awarded : 5.0

Materials I Mat

Mat Materials

Site : 18 Vine Hill

MAT 01 ENVIRONMENTAL IMPACT OF MATERIALS

Options :	Option 1
Environmental impact of materials :	4
Exemplary level criteria :	No

MAT 03 RESPONSIBLE SOURCING OF MATERIALS

Sustainable procurement plan :	1
Has criterion 1 been met? :	Yes
Responsible sourcing of materials :	2
Exemplary level criteria :	No

MAT 04 INSULATION

Insulation :	1

MAT 05 DESIGNING FOR DURABILITY AND RESILIENCE

Designing for durability and resilience :	1

MAT 06 MATERIAL EFFICIENCY

Material efficiency :	1

Credits awarded : 10.0

Waste I Wst

Wst Waste

Site : 18 Vine Hill

WST 01 CONSTRUCTION WASTE MANAGEMENT	
Pre-refurbishment audit :	1
Re-use and direct recycling of materials :	2
Resource efficiency :	2
Diversion of waste from landfill :	1
Exemplary level criteria :	No

WST 02 RECYCLED AGGREGATES	
Recycled aggregates :	0
Exemplary level criteria :	No

WST 03 OPERATIONAL WASTE	
Operational waste :	1

WST 04 SPECULATIVE FINISHES	
Speculative finishes :	1

WST 05 ADAPTATION TO CLIMATE CHANGE	
Adaptation to climate change - structural and fabric resilience :	0

WST 06 FUNCTIONAL ADAPTABILITY	
Functional adaptabiliy :	1

Credits awarded : 9.0

Land use and ecology l Le

Le Land use and ecology

Site : 18 Vine Hill

LE 02 PROTECTION OF ECOLOGICAL FEATURES	
Protecting ecological value :	1

LE 04 ECOLOGICAL ENHANCEMENT	
Ecological enhancement :	1

LE 05 LONG TERM IMPACT ON BIODIVERSITY	
Long term impact on biodiversity :	2

Credits awarded : 4.0

Pollution I Pol

Pol Pollution

Site : 18 Vine Hill

POL 01 IMPACT OF REFRIGERANTS	
Impact of refrigerants :	0
Leak detection :	0
POL 02 NOX EMISSIONS	
NOx emissions :	0
POL 03 FLOOD RISK AND REDUCING SURFACE WATER RUN-OFF	
Flood risk management :	2
Exemplary level criteria :	No
Surface water run-off :	2
Minimising watercourse pollution :	1
POL 04 REDUCTION OF NIGHT TIME LIGHT POLLUTION	
Reduction of night time light pollution :	1
POL 05 NOISE ATTENUATION	
Noise attenuation :	1

Credits awarded : 7.0

Innovation | Inn

Inn Innovation

Site : 18 Vine Hill

INN 01 APPROVED INNOVATIONS

Approved innovations :	0

Credits awarded : 0.0