Project:	Fronting Withington Road, Manchester M16 8FA
Report:	Sustainability Statement with BREEAM Pre-Assess
Revision:	P01
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Client:	Dr. Ugo Umeadi
Report by:	Mantis Energy Ltd

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1.0 Executive Summary

Mantis Energy has been commissioned by Dr. Ugo Umeadi to produce a sustainability statement to support the development know as land fronting Withington Road.

It has been agreed that the scheme will not seek formal certification against the Building Research Establishment's Environmental Assessment Methodology (BREEAM), however this sustainability assessment highlights, based on the current proposals, how the scheme would likely perform if a full assessment were to be carried out. The internal floor area of the building is approximately 110m2 and therefore falls below the requirements on Manchester Planning Policy EN6.

BREEAM assesses, encourages and rewards environmental, social and economic sustainability throughout the built environment. The BREEAM schemes:

Encourage continuous performance improvement and innovation by setting and assessing against a broad range of scientifically rigorous requirements that go beyond current regulations and practice,

Empower those who own, commission, deliver, manage or use buildings.

Build Confidence and value by providing independent certification that demonstrates the wider benefits to individuals, business, society and the environment,

This Sustainability statement shows how the proposed development addresses the relevant national and local policy, as set out in the National Planning Policy Framework 2012, in terms of environmental consideration for future developments. It shows clearly how the developer and their design team can take practicable measures to ensure the development has, from the outset, worked to ensure sustainability plays a major factor through all key stages.

The sustainability assessment has been built around the BREEAM 2018 New Construction Manual revision 3.0. Below we have highlighted environmental sections and assessment issues:

- **Management**
- **Health and Wellbeing**
- **Energy**
- **Transport**
- **Water**
- **Materials**
- **Waste**
- **Land Use**
- **Ecology Pollution**

A BREEAM Pre-Assessment has been produced and is attached as an appendix to this report. The Pre-Assessment highlights the scheme, based on the current design, would likely score just over 55 points, i.e. a Very Good rating.

2.0 Introduction

Sustainable development was defined by the Bruntland Commission, 1987, as:

"Development which meets the needs of the present without compromising the ability of future generations to meet their own needs"

This Sustainability statement shows how the proposed development addresses the relevant national and local policy, as set out in the National Planning Policy Framework 2012 In terms of environmental consideration for future developments. It shows clearly how the developer and their design team can take practicable measures to ensure the development has, from the outset, worked to ensure sustainability plays a major factor through all key stages.

The fact that 30 years on the term is still widely discussed and debated shows how useful and powerful it is. The concept of sustainable development tells us that we must balance the need for social progress and economic growth with preservation and enhancement of our natural environment. In simple terms, through sustainable development we can recognize that what we do today to make our lives better should not have a negative consequence for our children, or their children.

There are three main dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- **An economic role**
- **A social role**
- **An environmental role**

3.0 Development Description

3.1 Site Plan

The site is currently a derelict plot of land to the West of 120A Withington road. Most of the ground is overgrown and broken hard standing, with 5 trees on site.

The allowable footprint as deemed suitable by the Arboriculturist was then combined with the client's criteria for a private clinic in the area. The criteria was to allow for 2 consultants' room and a small surgery area. Other requirements were to provide a reception, waiting area, accessible WC, staff area and office, all within a limited space.

Accessibility has been considered to allow for a wheelchair user to safety and

comfortably use the Clinic. Following several conversations and design Workshops, the spaces have been designed alongside the Doctor, to efficiently provide the necessary facilities and working spaces required.

4.0 Sustainability: Core design principles

Within this section of the report we will examine the key and core design principles of sustainable design, allowing the developer to incorporate sustainability from conception, through construction and into the operation of the dwellings.

4.2.0 Categories of Sustainable Design.

We have identified nine categories of sustainable design including:

- **Management**
- **Health and Wellbeing**
- **Energy**
- **Transport**
- **Water**
- **Materials**
- **Waste**
- **Land Use**
- **Ecology Pollution**

4.2.1 Management

Man 01 Project brief and design:

Encouraging an integrated design process and considering BREEAM performance targets early to influence decision-making and optimize building performance, while avoiding unnecessary costs - 2 credits would likely be awarded.

Man 02 Life cycle cost and service life planning:

Promoting the business case for sustainable buildings through the enhanced understanding of capital cost. Cost consultancy has been considered throughout the design process so far – 1 credit would be awarded.

Man 03 Responsible construction practices:

Encouraging construction sites to be managed in an environmentally and socially considerate and responsible manner. This would be picked up by the main contractor on site - 5 Credits would be sought.

Note:

Not all BREEAM criteria are applicable to this scheme and therefore some credits have been omitted from the report. Due to the strict timing requirements of some credits please be aware you will not retrospectively be able to carry out a BREEAM assessment and secure all the credits listed.

Man 04 Commissioning and handover:

Encouraging a well-managed handover and commissioning process, which will ensure building services and fabric defects are identified and rectified. MEP consultants have been included within the early design stages – 1 credit would be awarded

4.2.2 Health and Wellbeing

Hea 01 Visual comfort:

Providing occupants with the conditions that facilitate good visual comfort by designing out the potential for glare, achieving good practice daylight factors and having an adequate view out. – Preliminary analysis of the criteria highlights 1 credit would likely be awarded.

Hea 05 Acoustic performance:

Enabling occupants to experience best practice acoustic performance levels appropriate to the functional activities in occupied spaces. As the building would need to comply with HTM08 it is likely the scheme would secure 3 credits.

Hea 07 Safe and healthy surroundings:

Enhancing the wellbeing of building users by giving access to an outdoor space. The current landscaping plan highlights external space is a key factor for the building users, external seating areas are to be provided – 1 Credit would be awarded

4.2.3 Energy and Carbon Emissions

Ene 01 Reduction of energy use and carbon emissions:

Encouraging the design of energy efficient buildings with energy performance above national building regulations. We have worked on the bases the development will meet Part L but not exceed it. Therefore, we haven't awarded any credits at this point.

Ene 03 External lighting:

Reducing the building's energy consumption through the specification of energy efficient external lighting. This is not a particularly onerous credit. We would expect the external lighting design to comply by default – 1 Credit would be awarded.

Ene 04 Low carbon design:

No renewables technologies have been included within the current credit strategy

4.2.4 Travel

Tra 01 Transport assessment and travel plan:

Recognizing developments in proximity to good public transport networks, thereby helping to reduce transport-related pollution and congestion. Given the central location

of the scheme and Manchester's transport links - We would expect 2 credits to be awarded.

Tra 02 Sustainable transport measures:

Recognizing developments in proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants. The scheme already includes for several sustainable transport measures including cycle storage and electric car charging points. We would expect the scheme to pick up at least 5 credits.

4.2.5 Water

Wat 01 Water consumption:

Reducing the demand for potable water through the provision of efficient sanitary fittings, rainwater collection and water recycling systems. We have assumed low flow / low capacity fittings would be used throughout.

Wat 02 Water monitoring:

Specification of water meters to allow for management and monitoring of water use in the building. This encourages reductions in water use by identifying areas of high usage and investigating potential causes. The current proposals include for individual water meters to all units.

Wat 03 Water leak detection:

Reducing the unintended water consumption due to leaks by installing leak detection systems and flow control devices. 2 credits could be sought.

4.2.6 Materials

Mat 01 Environmental impacts from construction products:

Reducing buildings' environmental life cycle impacts through conducting Life Cycle Assessment and integrating its outcomes in the design decision-making process. The current proposal is for mixed use development, the BRE are yet to establish benchmarks for this type of development, therefore the scheme would secure 3 credits if the LCA assessment was carried out at the appropriate time.

Mat 02 Environmental impacts from construction products:

To encourage availability of robust and comparable data on the impacts of construction products by rewarding the specification of products with environmental products declarations. To secure credits the construction team would need to ensure they kept a paper trail of all the materials used on site. We feel this is now standard practice and therefore we would expect this credit to be awarded.

Mat 03 Responsible sourcing of construction products:

Recognizing and encouraging responsible sourcing of construction products. This includes the source of products and the intermediary companies processing and transporting the product to site. To secure credits the construction team would need to ensure they kept a paper trail of all the materials used on site. We feel this is now standard practice and therefore we would expect 2 credits to be awarded.

Mat 05 Designing for durability and resilience:

Increasing the lifespan of the building through designing for durability and protection from degradation and specifying appropriate construction products. The scheme is of masonry construction. Therefore, we do not see any reason why this credit would not be achieved.

Mat 06 Material efficiency:

Encouraging the reduction of environmental impacts through optimizing the use of materials during all stages of the project. We do not feel this credit would be targeted as part of a strategy for very good.

4.2.7 Waste

Wst 01 Construction waste management:

Improving resource efficiency through developing a pre-demolition audit and a Resource Management Plan, maximizing the recovery of material during demolition and diverting non-hazardous waste from landfill. To secure credits the main contractor will ensure they hit BREEAM performance criteria. We have included for 4 out of the 5 available credits which would be achievable on site.

Wst 02 Use of recycled and sustainably sourced aggregates:

Encouraging the use of recycled or secondary aggregate or aggregate types with lower environmental impact to reduce waste and optimize material efficiency. At present we haven't included for this credit. However due to the onsite demolition there could be an opportunity to target a credit.

Wst 03 Operational waste:

Encouraging the diversion of operational waste form landfill through the provision of space and facilities allowing the segregation and storage of recyclable waste. A waste strategy has been produced demonstrating sufficient storage for waste / recycling. Manchester also offer a complaint waste / recycling scheme. 1 Credit would be awarded.

4.2.8 Land Use and Ecology

Le 01 Site selection:

Recognizing the reuse of previously developed and contaminated land where appropriate remediation has taken place. As the scheme is located on previously developed land would secure 1 credit

Le 02 Ecological risks and opportunities:

Identifying and understanding the ecological risks and opportunities associated with the site to inform the determination of the strategic outcome for the site. We would expect the development to score 2 credits.

Le 03 Managing impacts on ecology:

Recognition of steps taken to avoid impacts on existing site ecology as far as possible. Ecologists have been to site and documented their findings. We would expect the development to score 2 credits.

Le 04 Ecological change and enhancement:

Recognition of steps taken to enhance site ecology. We would expect the development to score 2 credits.

Le 05 Long term ecological management and maintenance:

Encouraging the long-term maintenance and management of ecology on site to ensure both new and existing ecological features continue to thrive. We would expect the development to score 2 credits.

4.2.9 Pollution

Pol 03 Flood and surface water management:

Rewarding buildings and their sites that limit on-site and off-site local flooding and hence the damage this can cause. The site is located in a low risk flood area. As the scheme will be sat on previously developed land, we don't not expect there to be an increase in either the surface water run off rate or the volume of surface water runoff. We would expect 3 credits to be awarded.

Pol 04 Reduction of nighttime light pollution:

Avoiding or reducing the impact of nighttime light pollution, through careful design and specification of light sources. We would expect the current design to comply with BREEAM criteria. 1 Credit would be awarded.

Pol 05 Reduction of noise pollution:

Avoiding or reducing the impact of external noise from the building.

5.0 Conclusion

The three main dimensions to sustainable development - economic, social and environmental - play a key role in both national and local planning policy requirements.

The National Planning Policy Framework 2012 have been reviewed and applied to the proposed development through the principles of sustainable design, thus ensuring the relevant planning framework has been addressed.

A BREEAM Pre-Assessment has been produced and is attached as an appendix to this report. The Pre-Assessment highlights the scheme, based on the current design, would likely score just over 55 points, i.e. a Very Good rating.

The design of the scheme has been shaped by the following nine categories of sustainable design:

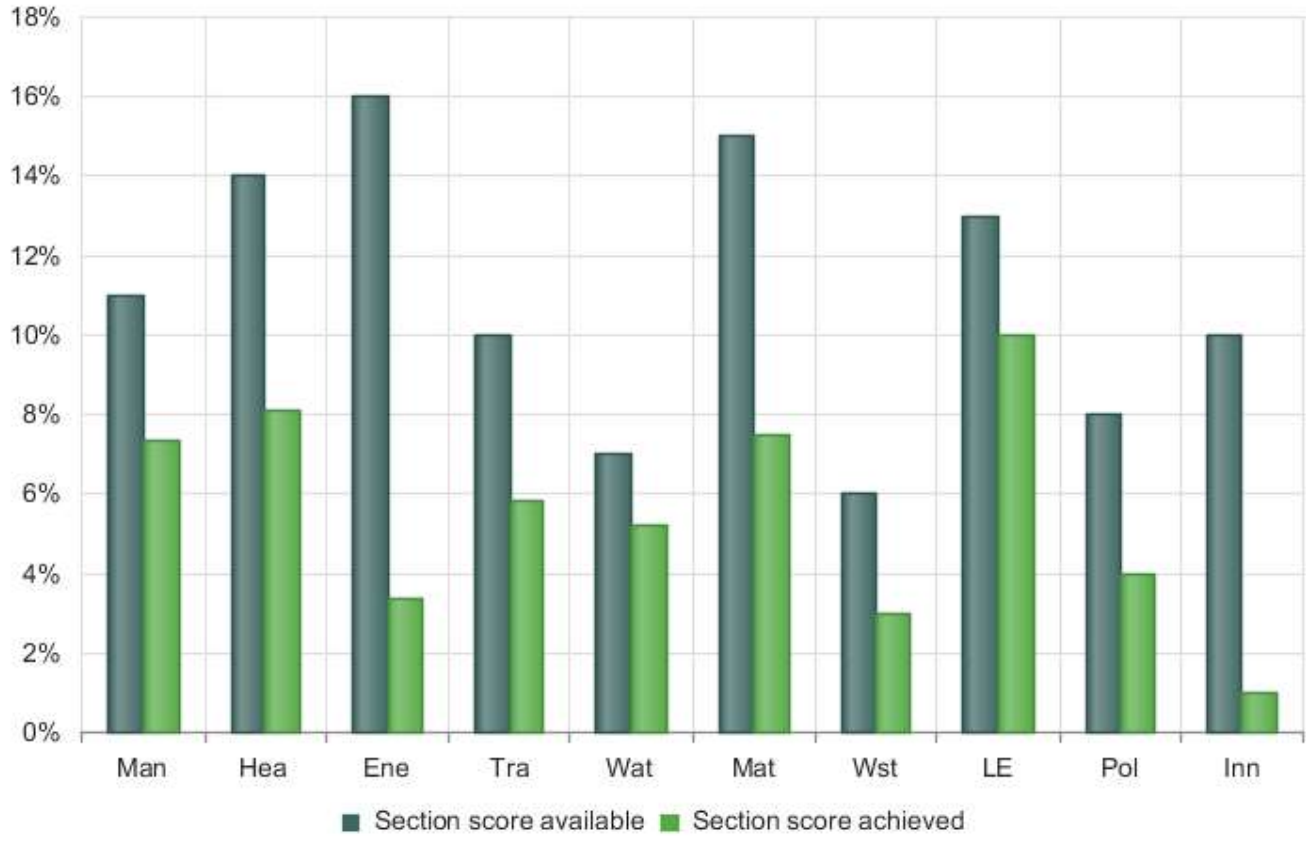
- **Management**
- **Health and Wellbeing**
- **Energy**
- **Transport**
- **Water**
- **Materials**
- **Waste**
- **Land Use and Ecology**
- **Pollution**

Note: whilst this report highlights the building would likely achieve a Very Good rating, due to the timing requirements of certain credits it would not be possible to retrospectively carry out a BREEAM assessment.

BREEAM Rating

	Credits available	Credits achieved	Credits targeted	% Credits achieved	Weighting	Category score	Target score
Man	21.0	14.0	0.0	66.67%	11.00%	7.33%	0.00%
Hea	19.0	11.0	0.0	57.89%	14.00%	8.10%	0.00%
Ene	19.0	4.0	0.0	21.05%	16.00%	3.36%	0.00%
Tra	12.0	7.0	0.0	58.33%	10.00%	5.83%	0.00%
Wat	8.0	6.0	0.0	75.00%	7.00%	5.25%	0.00%
Mat	14.0	7.0	0.0	50.00%	15.00%	7.50%	0.00%
Wst	10.0	5.0	0.0	50.00%	6.00%	3.00%	0.00%
LE	13.0	10.0	3.0	76.92%	13.00%	10.00%	3.00%
Pol	12.0	6.0	0.0	50.00%	8.00%	4.00%	0.00%
Inn	10.0	1.0	1.0	10.00%	10.00%	1.00%	1.00%
Total	138.0	71.0	4.0	51.45%	-	55.39%	4.00%
Rating	-	-	-	-	-	★★★☆☆ **Very Good**	Unclass

Performance by environmental category



Indicator scores

More information (https://www.breeam.com/news/new-breeam-indicators-to-be-added-to-breeam/) about the BREEAM indicator scores

Issue scores

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

Management

Man 01 Project Brief and design

2 / 4

Man 02 Life cycle cost and service life planning

1 / 4

Man 03 Responsible construction practices

5 / 6 X: 1 / 1

Man 04 Commissioning and handover

3 / 4

Man 05 Aftercare

3 / 3

Health and Wellbeing

Hea 01 Visual comfort

2 / 6 X: 0 / 2

Hea 02 Indoor air quality

2 / 4 X: 0 / 1

Hea 04 Thermal comfort

3 / 3

Hea 05 Acoustic performance

3 / 3

Hea 06 Security

0 / 1 X: 0 / 1

Hea 07 Safe and Healthy Surroundings

1 / 2

Energy

Ene 01 Reduction of energy use and carbon emissions

0 / 13 X: 0 / 5

Ene 02 Energy monitoring

2 / 2

Ene 03 External lighting

1 / 1

Ene 04 Low carbon design

1 / 3

Ene 05 Energy efficient cold storage

N/A

Ene 06 Energy efficient transportation systems

N/A

Ene 07 Energy efficient laboratory systems

N/A

Ene 08 Energy efficient equipment

N/A

Transport

Tra 01 Transport assessment and travel plan

2 / 2

Tra 02 Sustainable transport measures

5 / 10

Water

Wat 01 Water consumption

3 / 5 X: 0 / 1

Wat 02 Water monitoring

1 / 1

Wat 03 Water leak detection

2 / 2

Wat 04 Water efficient equipment

N/A

Materials

Mat 01 Life cycle impacts

3 / 7 X: 0 / 3

Mat 02 Environmental impacts from construction products

1 / 1

Mat 03 Responsible sourcing

2 / 4 X: 0 / 1

Mat 05 Designing for durability and resilience

1 / 1

Mat 06 Material efficiency

0 / 1

Waste

Wst 01 Construction waste management

4 / 5 X: 0 / 1

Wst 02 Use of recycled and sustainably sourced aggregates

0 / 1 X: 0 / 1

Wst 03 Operational waste

1 / 1

Wst 04 Speculative finishes (Offices only)

N/A

Wst 05 Adaptation to climate change

0 / 1 X: 0 / 1

Wst 06 Design for disassembly and adaptability

0 / 2

Land use and ecology

LE 01 Site selection

2 / 2

LE 02 Ecological risks and opportunities

2 / 2 X: 0 / 1

LE 03 Managing impacts on ecology

2 / 3

LE 04 Ecological change and enhancement

2 / 4 X: 0 / 1

LE 05 Long term ecology management and maintenance

2 / 2

Pollution

Pol 01 Impact of refrigerants

0 / 3

Pol 02 Local air quality

1 / 2

Pol 03 Flood risk management and reducing surface water run-off

3 / 5

Pol 04 Reduction of Night Time Light Pollution

1 / 1

Pol 05 Noise attenuation

1 / 1

Innovation

Inn 01 Innovation

0 / 0 X: 0 / 10

Initial details

Technical manual issue number : Issue 3.0

Project scope : Fully fitted

Building type (main description) : Healthcare

Sub-group : General acute hospitals

Does this healthcare building have inpatient areas? : Yes

Assessment stage : Design (interim)

Building floor area (GIA) : 110 m^2

Building floor area (NIFA) : 110 m^2

Is the building designed to be untreated? : No

Building services - heating system type : Other type of heating system

Building services - cooling system type : Comfort cooling

Does the building have external areas within the boundary of the assessed development? : Yes

Are commercial or industrial-sized refrigeration and storage systems specified? : No

Are building user lifts present? : No

Are building user escalators or moving walks present? : No

Are there any water demands present other than those assessed in Wat 01? : No

Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space : No

Are there any systems specified that contribute to the unregulated energy load? : No

Are the Post-occupancy stage credits targeted in Ene 01 issue? : No

Are laboratories present? : No

Are there fume cupboard(s) and/or other containment devices present? : No

Category assessment
Management (Man)

Man 01 Project Brief and design

To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Assessment criteria	
Project delivery planning :	Yes
Stakeholder consultation (interested parties) :	Yes
Prerequisite: Have the client and the contractor formally agreed performance targets? :	
Credits awarded : 2	

Man 02 Life cycle cost and service life planning

To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Assessment criteria	
Elemental LCC :	
Component level LCC options appraisal :	
Capital cost reporting :	Yes
Capital cost of the project :	1800 Â£k/m^2
Credits awarded : 1	

Man 03 Responsible construction practices

To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Assessment criteria	
Prerequisite: Are all timber and timber-based products used during the construction process of the project 'legally harvested and traded timber'? :	Yes
Prerequisite: Does the party managing the construction site operate an	Yes

Environmental Management System? :	
Environmental management :	Yes
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (site) :	Yes
Responsible construction management :	2
Monitoring of construction site impacts :	Yes
Utility consumption :	Yes
Transport of construction materials and waste :	Yes
Exemplary level criteria - Responsible construction management :	Yes

Key Performance Indicators: Construction site energy use

Energy consumption (total) - site processes :

Energy consumption (intensity) - site processes :

Key Performance Indicators: Construction site greenhouse gas emissions

Process greenhouse gas emissions (total) - site processes :

Carbon dioxide emissions (intensity) - site processes :

Credits awarded : 5
Exemplary credits awarded : 1

Man 04 Commissioning and handover

To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.

Assessment criteria

Commissioning testing schedule and responsibilities :	Yes
Commissioning - design and preparation :	Yes
Testing and inspecting building fabric :	No
Handover - have a technical and a non-technical building user guide been developed prior to handover? :	Yes
Handover - have a technical and a non-technical training schedule been prepared around handover? :	Yes

Credits awarded : 3

Man 05 Aftercare

To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.

Assessment criteria	
Is this a speculative development? :	No
Aftercare support :	Yes
Commissioning - implementation :	Yes
Post occupancy evaluation :	Yes
The client or building occupier commits funds to pay for the POE in advance. :	Yes

Credits awarded : 3

Health and Wellbeing (Hea)

Hea 01 Visual comfort

To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Assessment criteria	
Control of glare from sunlight :	Yes
Daylighting (building type dependent) :	0
View Out :	No
Internal and external lighting levels, zoning and controls :	Yes
Exemplary level criteria- Internal and external lighting levels, zoning and control :	No

Credits awarded : 2

Hea 02 Indoor air quality

To encourage and support healthy internal environments with good indoor air quality.

Assessment criteria	
Pre requisite: Indoor air quality (IAQ) plan :	Yes
Ventilation :	No
Emissions from building products :	2
Post-construction indoor air quality measurement :	No
Exemplary level criteria- Emissions from building products :	No

Key Performance Indicators

Formaldehyde concentration :

Total volatile organic compound (TVOC) concentration :

Credits awarded : 2

Hea 04 Thermal comfort

To ensure the building is capable of providing an appropriate level of thermal comfort.

Assessment criteria	
Thermal modelling :	Yes
Design for future thermal comfort :	Yes
Thermal zoning and controls :	Yes

Key Performance Indicators	
PMV and PPD Indices :	

Credits awarded : 3

Hea 05 Acoustic performance

To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.

Assessment criteria	
Criteria performance requirements or SQA bespoke requirements? :	Criteria performance requirements
Sound insulation :	1
Indoor ambient noise level :	Yes
Room acoustics :	Yes

Credits awarded : 3

Hea 06 Security

To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.

Assessment criteria	
Security of site and building :	No
Exemplary level criteria :	No

Credits awarded : 0

Hea 07 Safe and Healthy Surroundings

To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users. .

Assessment criteria	
Safe Access :	No
Outside Space :	Yes

Credits awarded : 1

Energy (Ene)

Ene 01 Reduction of energy use and carbon emissions

To minimise operational energy demand, primary energy consumption and CO2 emissions.

Energy performance

Country :	England
Can a .inp file be uploaded? :	
Without the .inp file being uploaded only the standard methodology can be used. This may impact the number of credits that can be awarded. :	
Energy Production by Technology :	
Energy & CO_2 Emissions Summary :	
Actual building energy demand :	
Notional building energy demand :	
Actual building primary energy consumption :	
Notional building primary energy consumption :	
Actual building CO_2-eq emissions (BER) :	
Notional building CO_2-eq emissions (TER) :	

Energy performance - Building score

Total BREEAM credits achieved :	0.0
Heating and cooling demand energy performance ratio (EPRdem) :	
Primary consumption energy performance ratio (EPRpc) :	
CO_2-eq energy performance ratio (EPRco2-eq) :	
Overall building energy performance ratio (EPRnc) :	
% improvement BER/TER :	

Towards carbon negative (exemplary credits)

Zero net CO_2-eq emissions :

Prediction of operational energy consumption

Has a design workshop focusing on operational energy performance been carried out? :	
Has the operational energy performance of the building been substantially improved? :	

Post-occupancy stage (exemplary credits)

Maximum credits achieved in Ene 02 Energy monitoring? :	Yes
The client or building occupier commits funds to pay for the post-occupancy stage? :	
The energy model is submitted to BRE and retained by the building owner? :	

Credits awarded : 0

Ene 02 Energy monitoring

To encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.

Assessment criteria

Sub-metering of end use categories :	Yes
Sub-metering of high energy load and tenancy areas :	Yes

Credits awarded : 2

Ene 03 External lighting

To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.

Assessment criteria

External lighting has been designed out? :	No
Is external lighting specified in accordance with the relevant criteria? :	Yes

Credits awarded : 1

Ene 04 Low carbon design

To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Assessment criteria	
Has the first credit within Hea 04 been achieved? :	Yes
Passive design analysis :	Yes
Free cooling :	No
Low and zero carbon technologies :	No

KPI	
Total on-site and/or near-site LZC energy generation :	
Expected energy demand and CO_2-eq emissions reduction resulting from passive design measures :	
Expected energy demand and CO_2-eq emissions reduction resulting from passive design measures as a percentage :	
Expected reduction in CO_2-eq emissions resulting from the LZC technologies :	
Expected reduction in CO_2-eq emissions resulting from the LZC technologies as a percentage :	**Credits awarded**
: 1	

Ene 05 Energy efficient cold storage

To encourage the installation of energy efficient refrigeration systems, in order to reduce operational greenhouse gas emissions resulting from the system's energy use.

Assessment criteria - N/A

Ene 06 Energy efficient transportation systems

To encourage the specification of energy efficient transport systems within buildings.

Assessment criteria - N/A

Ene 07 Energy efficient laboratory systems

To encourage laboratory areas that are designed to minimise their operational energy consumptionand associated CO2 emission

Assessment criteria - N/A

Ene 08 Energy efficient equipment

To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation

Assessment criteria - N/A

Transport (Tra)

Tra 01 Transport assessment and travel plan

To reward awareness of existing local transport and identify improvements to make it more sustainable.

Assessment criteria	
Travel plan :	Yes

Credits awarded : 2

Tra 02 Sustainable transport measures

To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.

Assessment criteria	
Prerequisite :	Yes
Location type (based on existing AI) :	AI <25
Number of points achieved overall :	5

Credits awarded : 5

Water (Wat)

Wat 01 Water consumption

To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.

Assessment criteria

Are all water components subject to clinical requirements? :	No
Please select the calculation procedure used :	Alternative approach
Credits awarded :	3
Exemplary performance :	

Key Performance Indicators

Alternative approach data: :

Overall microcomponent performance level achieved :

Credits awarded : 3

Wat 02 Water monitoring

To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.

Assessment criteria

Water meter on the mains water supply to each building :	Yes
Sub-metering/monitoring equipment on supply to plant/building areas :	Yes
Pulsed output or other open protocol communication output and BMS connection :	Yes
The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (L/person/day) :	Yes

Credits awarded : 1

Wat 03 Water leak detection

To reduce the consumption of potable water in new buildings through minimising wastage due

to water leaks.

Assessment criteria	
Leak detection system :	Yes
Flow control devices :	Yes

Credits awarded : 2

Wat 04 Water efficient equipment

To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.

Assessment criteria - N/A

Materials (Mat)

Mat 01 Life cycle impacts

To reduce the burden on the environment from construction products by recognising and encouraging 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.

Assessment criteria	
Total Mat 01 credits achieved - taken from the Mat 01/02 Results Submission Tool :	3
Total Exemplary credits achieved - taken from the Mat 01/02 Results Submission Tool :	0
Credits awarded : 3	

Mat 02 Environmental impacts from construction products

To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.

Assessment criteria	
Mat 02 credit achieved - Taken from the Mat 01/02 Results Submission Tool. :	1
Credits awarded : 1	

Mat 03 Responsible sourcing

To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Assessment criteria	
Prerequisite: All timber and timber based products are 'Legally harvested and traded timber' :	Yes
Has the enabling sustainable procurement credit been achieved? :	Yes
Mat 03 minimum scope level :	Superstructure
Percentage of available for percentage of RSM points achieved :	10 %
Credits awarded : 2	

Mat 05 Designing for durability and resilience

To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.

Assessment criteria	
Protecting vulnerable parts of the building from damage and exposed parts of the building from material degradation :	Yes

Credits awarded : 1

Mat 06 Material efficiency

To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.

Assessment criteria	
Material optimisation measures investigated and implemented at all relevant stages :	

Credits awarded : 0

Waste (Wst)

Wst 01 Construction waste management

To reduce construction waste by encouraging reuse, recovery and best practice waste management practicesto minimise waste going to landfill.

Assessment criteria

Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development? :	Yes
Pre-demolition audit :	Yes
Compliant Resource Management Plan :	Yes
Have waste materials been sorted into separate key waste groups? :	Yes
Exemplary level criteria :	No

KPI

Measure/units for the data being reported :	m^3
Non-hazardous construction waste (excluding demolition/excavation) - fill in to award 'Construction resource efficiency' credits :	
Total non-hazardous construction waste generated :	
Non-hazardous non-demolition construction waste diverted from landfill - fill in to award diversion from landfill credit :	
Total non-hazardous non-demolition construction waste diverted from landfill :	
Non-hazardous demolition waste diverted from landfill - fill in to award diversion from landfill credit :	
Total non-hazardous demolition waste generated :	
Total non-hazardous demolition waste to disposal :	
Non-hazardous excavation waste diverted from landfill - fill in to award credit :	
Material for reuse :	
Material for recycling :	
Material for energy recovery :	
Hazardous waste to disposal :	

Credits awarded : 4

Wst 02 Use of recycled and sustainably sourced aggregates

To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.

Assessment criteria

Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development? :	Yes
Pre-requisite: pre-demolition audit :	

Credits awarded : 0

Wst 03 Operational waste

To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.

Assessment criteria

Compliant recycling and non-recyclable waste storage allocated :	Yes
Static waste compactor(s) or baler(s) :	N/A
Vessel(s) for composting suitable organic waste and water outlet :	N/A
Healthcare buildings - NHS compliant operational waste facilities provided :	Yes

Credits awarded : 1

Wst 04 Speculative finishes (Offices only)

To minimise the wastage associated with the installation of floor and ceiling finishes in lettable areas in speculative buildings where tenants have not been involved in their selection.

Assessment criteria - N/A

Wst 05 Adaptation to climate change

To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.

Assessment criteria

Resilience of structure, fabric, building services and renewables installation
:

Credits awarded : 0

Wst 06 Design for disassembly and adaptability

To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

Assessment criteria

Design for disassembly and functional adaptability - recommendations :

Credits awarded : 0

Land use and ecology (LE)

LE 01 Site selection

To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.

Assessment criteria

Percentage of proposed development's footprint on previously occupied land: :	75 %
Contaminated land :	Yes

Credits awarded : 2

LE 02 Ecological risks and opportunities

To determine the existing ecological value associated with the site and surrounding areas, and the risks and opportunities for ecological protection and enhancement.

Assessment criteria

Assessment route selection :	Comprehensive
Prerequisite - Statutory obligations :	Yes
Survey and Evaluation :	Yes
Determining ecological outcomes :	Yes
Exemplary level - Wider site sustainability :	No

Credits awarded : 2

LE 03 Managing impacts on ecology

To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Assessment criteria

Assessment route :	Comprehensive
Prerequisite - Ecological risks and opportunities :	Yes
Planning and measures on-site :	Yes

Managing negative impacts :	1

Credits awarded : 2

LE 04 Ecological change and enhancement

To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Assessment criteria

Assessment route :	Comprehensive
Prerequisite - Managing negative impacts on ecology :	Yes
Ecological enhancement (Comprehensive route only) :	Yes
Change and enhancement of ecology (Comprehensive route only) :	1

Credits awarded : 2

LE 05 Long term ecology management and maintenance

To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.

Assessment criteria

Assessment route :	Comprehensive
At least one credit achieved under LE 04 for 'Change and Enhancement of Ecologyâ :	Yes
Prerequisite - Statutory obligations, planning and site implementation :	Yes
Management and maintenance throughout the project :	Yes
Landscape and ecology management plan :	Yes

Credits awarded : 2

Pollution (Pol)

Pol 01 Impact of refrigerants

To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.

Assessment criteria

Refrigerant containing systems installed in the assessed building? :	Yes
Prequisite: All systems (with electric compressors) comply with BSÂ EN 378:2016 (parts 2 and 3) and (where applicable) Institute of Refrigeration Ammonia Refrigeration Systems code of practice? :	No
Total Direct Effect Life Cycle CO2eq (DELC). Emissions from the system : Global Warming Potential (GWP) of the specified refrigerant(s) 10 or less? :	Yes

Leak detection

Are all the systems hermetically sealed? :	No
BREEAM compliant automatic refrigerant leak detection system installed and able to manage the remaining refrigerant charge :	Yes

Credits awarded : 0

Pol 02 Local air quality

To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.

Assessment criteria

Is the project required to connect to a District Heating system, and it supplies all heating and hot water demands to the building? :	No
How many credits have been achieved? :	1

Credits awarded : 1

Pol 03 Flood risk management and reducing surface water run-off

To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.

Assessment criteria

Prerequisite: Has an appropriate consultant demonstrated and confirmed	Yes

the development's compliance with all sought credits? :	
Has a site-specific flood risk assessment been conducted? :	Yes
Annual probability of flooding :	Low
Has the pre-requisite for the Surface Water Run-Off credits been achieved? :	Yes
Has the Surface Water Run-Off - Rate credit been achieved? :	Yes
Has the Surface Water Run-Off - Volume credit been achieved? :	No
Minimising watercourse pollution :	No

Credits awarded : 3

Pol 04 Reduction of Night Time Light Pollution

To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.

Assessment criteria

External lighting has been designed out? :	No
Does external lighting meet all relevant criteria? :	Yes

Credits awarded : 1

Pol 05 Noise attenuation

To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.

Assessment criteria

Noise-sensitive areas/buildings within 800m radius of the development :	Yes
Is the site compliant with all relevant criteria? :	Yes

Credits awarded : 1

Innovation (Inn)

Inn 01 Innovation

To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.

Assessment criteria	
Number of 'approved' innovation credits achieved? :	0

Credits awarded : 0