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## BREEAM UK New Construction 2018 Pre-Assessment Estimator Report Rev0

Little Sisters of the Poor,  
Garstang Road,  
Preston

03 October 2018

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**Appendices**

Appendix A - BREEAM Pre-Assessment Estimator Report

Prepared by	Checked by	Date	Project
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## **1. Introduction**

This BREEAM UK New Construction (NC) 2018 Pre-Assessment Estimator report has been prepared to support the planning application for the proposed redevelopment of Little Sisters of the Poor, Garstang Road.

The site, which is located off Garstang Road, is currently comprised of a main building - Jeanne Jugan Residence (which is operated by the Little Sisters of the Poor) – along with associated outbuildings and landscaped areas.

The site is not within a conservation area, and it does not contain or directly adjoin any listed buildings.

Proposals are for the demolition of the existing buildings and the development of a new healthcare facility.

Policy 27 of Preston's Core Strategy states that new development should:

*Incorporate sustainable resources into new development through the following measures:*

*All new dwellings will be required to meet Level 3 (or where economically viable, Level 4) of the Code for Sustainable Homes. This minimum requirement will increase to Level 4 from January 2013 and Level 6 from January 2016. **Minimum energy efficiency standards for all other new buildings will be 'Very Good' (or where possible, in urban areas, 'Excellent') according to the Building Research Establishment's Environmental Assessment Method (BREEAM).***

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## **2. BREEAM UK New Construction 2018 - Overview**

BREEAM is a performance based assessment method and certification scheme for new non residential buildings. The main aim of BREEAM is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost-effective manner.

The BREEAM UK NC scheme can be used to assess the environmental life cycle impacts of new non-domestic buildings at the design and construction stages.

Under BREEAM NC there are nine categories of sustainable design, within which are a number of sub-categories. Credits are awarded where evidence can be provided to demonstrate compliance with the criteria in the sub-categories. There are also additional credits available for innovation where, the building goes beyond best practice in terms of a particular aspect of sustainability.

The credits are then converted into a 'points' total and this determines the BREEAM rating achieved.

### **Minimum Standards**

There are certain sub-categories within the BREEAM UK NC where minimum standards must be met. These are dependent upon the rating of BREEAM to be achieved, and include:

- Reduction of Energy Use
- Energy Monitoring
- Responsible Sourcing of Materials
- Water Consumption
- Water Monitoring

### **Optional Elements**

There are certain optional elements of the assessment where the required evidence includes supporting reports and calculations. It is worth bearing in mind that if the credits in these categories are needed to increase the overall point's total, additional consultant fees may be required.

### **3. BREEAM Pre-Assessment Estimator**

The Pre-Assessment Estimator report is provided in **Appendix A**. This sets out what is considered at this stage (based on the plans and specifications received to date) to be the best ways forward in terms of achieving a BREEAM 'very good' rating.

In this instance, the following have been included within the Pre-Assessment:

#### **Management**

**Man 01 Stakeholder Consultation**  
**Man 02 Capital Cost Reporting**  
**Man 03 Responsible Construction Practices**  
**Man 04 Commissioning and Handover**  
**Man 05 Aftercare**

#### **Health and Wellbeing**

**Hea 01 Visual Comfort**  
**Hea 05 Acoustic Performance**  
**Hea 06 Secured by Design**

#### **Energy**

**Ene 01 Improvement in energy efficiency rating** – 5 credits assumed (to be determined through SBEM) – [see Page 7 for further details](#)  
**Ene 02 Energy Monitoring**  
**Ene 03 Energy Efficient External Lighting**  
**Ene 06 Energy Efficient Transportation Systems**

**Transport**

**Tra 01 Transport Assessment and Travel Plan**  
**Tra 02 Sustainable Transport Measures**

**Water**

**Wat 01 Water Consumption** (40% improvement over baseline)  
**Wat 02 Water Meter**  
**Wat 03 Water Leak Detection**

**Materials**

**Mat 01 Life Cycle Impacts**  
**Mat 05 Designing for Durability and Resilience**  
**Mat 06 Material Efficiency**

**Waste**

**Wst 01 Construction Waste Management**  
**Wst 03 Operational Waste**  
**Wst 06 Design for disassembly and adaptability**

**Land Use and Ecology**

**Le 01 Previously Developed Land**

**LE 02 Identifying and understanding the risks and opportunities for the site**

**LE 03 Managing negative impacts on ecology**

**LE 04 Change and enhancement of ecological value**

**LE 05 Long term impact on biodiversity**

**Pollution**

**Pol 01 Impact of Refrigerants**

**Pol 03 Flood Risk Management and Reducing Surface Water Runoff**

**Pol 04 Reduction of Nigh time Light Pollution**

**Pol 05 Noise Attenuation**

On this basis the Pre-Assessment is showing a 'targeted' score of 56.65% (noting that a minimum of 55% is required for 'very good').

This is shown in **Figure 1** overleaf.

It is important to note that the Pre-Assessment (and PAE provided in **Appendix A**) also includes a 'category' score. The 'category' score is currently showing as 53.60%.

It is important to note that the 'category' score **does not** take into account the credits assumed in Ene 01 Reduction of Energy Use and Carbon Emissions. Therefore, the 'category' score is not a true representation of the credits assumed at planning stage.

Pre-assessment : Design (Interim): Little Sisters of the Poor (4244)

BREEAM Rating							
	Credits available	Credits achieved	Credits targeted	% Credits achieved	Weighting	Category score	Target score
Man	21.0	13.0	13.0	61.90%	11.00%	6.80%	6.80%
Hea	18.0	10.0	10.0	55.56%	14.00%	7.77%	7.77%
Ene	21.0	6.0	10.0	28.57%	16.00%	4.57%	7.61%
Tra	12.0	5.0	5.0	41.67%	10.00%	4.16%	4.16%
Wat	8.0	6.0	6.0	75.00%	7.00%	5.25%	5.25%
Mat	14.0	6.0	6.0	42.86%	15.00%	6.42%	6.42%
Wst	10.0	6.0	6.0	60.00%	6.00%	3.59%	3.59%
LE	13.0	9.0	9.0	69.23%	13.00%	9.00%	9.00%
Pol	12.0	9.0	9.0	75.00%	8.00%	6.00%	6.00%
Inn	10.0	0.0	0.0	0.00%	10.00%	0.00%	0.00%
<b>Total</b>	<b>139.0</b>	<b>70.0</b>	<b>74.0</b>	<b>50.36%</b>	<b>-</b>	<b>53.60%</b>	<b>56.65%</b>
Rating	-	-	-	-	-	Good	Very Good

Figure 1 - BREEAM Category and Target Scores



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It is important to note that the Pre-Assessment Estimator is a guide to demonstrate how the proposed commercial unit could feasibly achieve 'very good'. Should planning permission be granted, it is strongly recommended that early consideration is given to BREEAM in order to ensure that a feasible strategy can be achieved.

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**Appendix A – BREEAM Refurbishment and Fit-Out Pre-Assessment Estimator**

## **Assessment report: Little Sisters of the Poor**

Site name: Little Sisters of the Poor

Client name:

Date: 28/9/2018

Assessment ref: 4244

## Assessment details

### Assessment references

**Registration number:** 4244 **Date created:** 28/9/2018  
**Created by:** Carina Clarke  
**Architect name:** Cassidy & Ashton  
**Developer name:**  
**Property owner**

### Site details

**Site name:** Little Sisters of the Poor  
**Address:** Garstang Road  
  
**Town:** Fulwood  
**County:** Lancashire  
**Post code:**  
**Country:**

### 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:

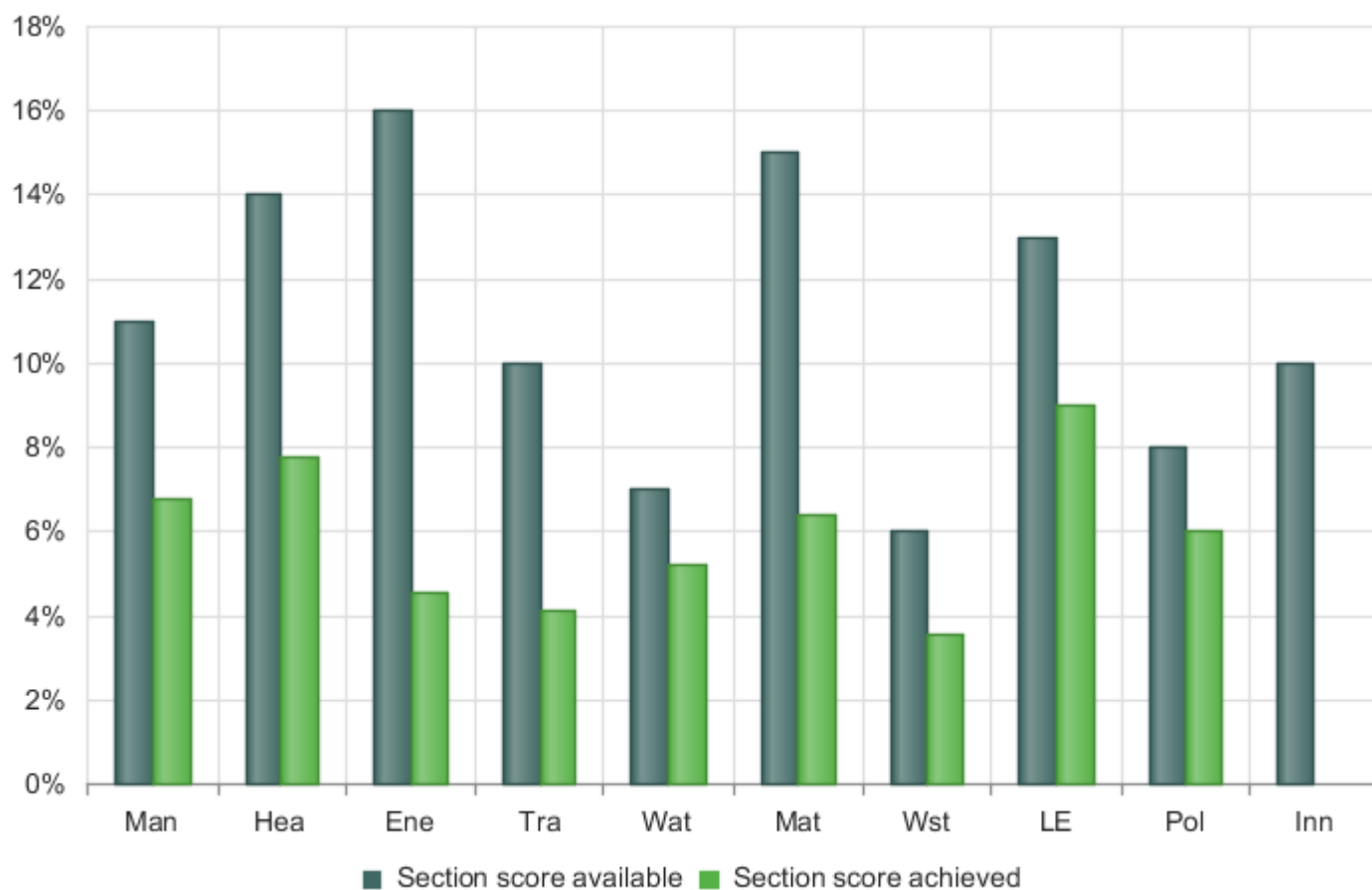
Name	Label
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## BREEAM rating

### BREEAM Rating

	Credits available	Credits achieved	% Credits achieved	Weighting	Category score
Man	21.0	13.0	61.90%	11.00%	6.80%
Hea	18.0	10.0	55.56%	14.00%	7.77%
Ene	21.0	6.0	28.57%	16.00%	4.57%
Tra	12.0	5.0	41.67%	10.00%	4.16%
Wat	8.0	6.0	75.00%	7.00%	5.25%
Mat	14.0	6.0	42.86%	15.00%	6.42%
Wst	10.0	6.0	60.00%	6.00%	3.59%
LE	13.0	9.0	69.23%	13.00%	9.00%
Pol	12.0	9.0	75.00%	8.00%	6.00%
Inn	10.0	0.0	0.00%	10.00%	0.00%
<b>Total</b>	<b>139.0</b>	<b>70.0</b>	<b>50.36%</b>	-	<b>53.60%</b>
<b>Rating</b>	-	-	-	-	<b>Good</b>

### Performance by environmental category



## Issue scores

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

## Management

Man01 Project Brief and design	Man02 Life cycle cost and service life planning	Man03 Responsible construction practices	Man04 Commissioning and handover	Man05 Aftercare
2 / 4	1 / 4	4 / 6 X: 0 / 1	3 / 4	3 / 3

## Health and Wellbeing

Hea01 Visual comfort	Hea02 Indoor air quality	Hea04 Thermal comfort	Hea05 Acoustic performance	Hea06 Security	Hea07 Safe and Healthy Surroundings
4 / 5 X: 0 / 2	0 / 4 X: 0 / 1	0 / 3	3 / 3	1 / 1 X: 0 / 1	2 / 2

## Energy

Ene01 Reduction of energy use and carbon emissions	Ene02 Energy monitoring	Ene03 External lighting	Ene04 Low carbon design	Ene05 Energy efficient cold storage	Ene06 Energy efficient transportation systems	Ene07 Energy efficient laboratory systems	Ene08 Energy efficient equipment
0 / 13 X: 0 / 5	2 / 2	1 / 1	1 / 3	N/A	2 / 2	N/A	N/A

## Transport

Tra01 Transport assessment and travel plan	Tra02 Sustainable transport measures
2 / 2	3 / 10

## Water

Wat01 Water consumption	Wat02 Water monitoring	Wat03 Water leak detection	Wat04 Water efficient equipment
3 / 5 X: 0 / 1	1 / 1	2 / 2	N/A

## Materials

Mat01 Life cycle impacts	Mat02 Environmental impacts from construction products	Mat03 Responsible sourcing	Mat05 Designing for durability and resilience	Mat06 Material efficiency
4 / 7 X: 0 / 3	0 / 1	0 / 4 X: 0 / 1	1 / 1	1 / 1

## Waste

Wst01 Construction waste management	Wst02 Use of recycled and sustainably sourced aggregates	Wst03 Operational waste	Wst04 Speculative finishes (Offices only)	Wst05 Adaptation to climate change	Wst06 Design for disassembly and adaptability
4 / 5 X: 0 / 1	0 / 1 X: 0 / 1	1 / 1	N/A	0 / 1 X: 0 / 1	1 / 2

## Land use and ecology

LE01 Site selection	LE02 Identifying and understanding the risks and opportunities for the site	LE03 Managing negative impacts on ecology	LE04 Change and enhancement of ecological value	LE05 Long term impact on biodiversity
1 / 2	2 / 2 X: 0 / 1	2 / 3	2 / 4 X: 0 / 1	2 / 2

## Pollution

Pol01 Impact of refrigerants	Pol02 Local air quality	Pol03 Flood risk management and reducing surface water run-off	Pol04 Reduction of Night Time Light Pollution	Pol05 Noise attenuation
2 / 3	0 / 2	5 / 5	1 / 1	1 / 1

## Innovation

**Inn01**  
**Innovation**

0 / 0  
X: 0 / 10

## Initial details

Garstang Road

### Initial details

Technical manual issue number : Issue 1.2

Project scope : Fully fitted

Building type (main description) : Healthcare

Sub-group : Health centres and clinics

Does this healthcare building have inpatient areas? : No

Assessment stage : Design (interim)

Building floor area (GIA) : 2100 m<sup>2</sup>

Building floor area (NIFA) : 2100 m<sup>2</sup>

Is the building designed to be untreated? : No

Building services - heating system type : Wet system

Building services - cooling system type : Air-conditioning

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

Are building user lifts present? : Yes

Are building user escalators or moving walks present? : No

Are laboratories present? : No

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

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

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

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



## 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.

Site : Garstang Road

##### ASSESSMENT CRITERIA

Project delivery planning :	Yes
Stakeholder consultation (interested parties) :	Yes
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (Concept Design) :	No
BREEAM Advisory Professional (Developed Design) :	

Credits awarded : 2.0

#### 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.

Site : Garstang Road

##### ASSESSMENT CRITERIA

Elemental LCC :	No
Component level LCC options appraisal :	No
Capital cost reporting :	Yes
Capital cost of the project :	500 Â£k/m <sup>2</sup>

Credits awarded : 1.0

#### Man 03 Responsible construction practices

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

Site : Garstang Road

##### 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 Environmental Management System? :	Yes
Environmental management :	Yes
Prerequisite: Have the client and the contractor formally agreed performance targets? :	Yes
BREEAM Advisory Professional (site) :	No
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 :	

#### 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 : 4.0**

## Man 04 Commissioning and handover

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

**Site : Garstang Road**

#### 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 : 3.0**

## 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.

**Site : Garstang Road**

#### 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 : 3.0**

## Hea 01 Visual comfort

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Control of glare from sunlight :	Yes
Daylighting (building type dependent) :	1
View Out :	Yes
Internal and external lighting levels, zoning and controls :	Yes
Exemplary level criteria - Daylighting :	No
Exemplary level criteria- Internal and external lighting levels, zoning and control :	No

Credits awarded : 4.0

## Hea 02 Indoor air quality

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Pre requisite: Indoor air quality (IAQ) plan :	No
Ventilation :	No
Emissions from building products :	0
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 : 0.0

## Hea 04 Thermal comfort

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Thermal modelling :	No
Design for future thermal comfort :	No
Thermal zoning and controls :	No

## KEY PERFORMANCE INDICATORS

PMV and PPD Indices :

Credits awarded : 0.0

## Hea 05 Acoustic performance

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

Site : Garstang Road

### 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 : 3.0

## Hea 06 Security

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

Site : Garstang Road

### ASSESSMENT CRITERIA

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

Credits awarded : 1.0

## 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. .

Site : Garstang Road

### ASSESSMENT CRITERIA

Safe Access :	Yes
Outside Space :	Yes

Credits awarded : 2.0

## Ene 01 Reduction of energy use and carbon emissions

To minimise operational energy demand, primary energy consumption and CO<sub>2</sub> emissions.

Site : Garstang Road

### ASSESSMENT CRITERIA

Country : England

Actual building energy demand :

Notional building energy demand :

Actual building primary energy consumption :

Notional building primary energy consumption :

Actual building CO<sub>2</sub>-eq emissions (BER) :

Notional building CO<sub>2</sub>-eq emissions (TER) :

### BUILDING SCORE

Total BREEAM credits achieved : 0.0

Heating and cooling demand energy performance ratio (EPRdem) :

Primary consumption energy performance ratio (EPRpc) :

CO<sub>2</sub>-eq energy performance ratio (EPRco2-eq) :

Overall building energy performance ratio (EPRnc) :

% improvement BER/TER :

Calculate score :

### ASSESSMENT CRITERIA (EXEMPLARY CREDITS)

Zero net CO<sub>2</sub>-eq emissions :

Equivalent % of additional emissions from unregulated energy that are offset by LZC sources :

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? :

### ASSESSMENT CRITERIA

Prerequisite - Has a design workshop focusing on operational energy performance been carried out? :

Additional energy modelling to generate predicted operational energy consumption figures carried out? :

Predicted energy consumption targets by end use, design assumptions and input data reported? :

Risk assessment to highlight any significant design, technical, and process risks? :

### ASSESSMENT CRITERIA (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 : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

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

Credits awarded : 2.0

## Ene 03 External lighting

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

Site : Garstang Road

### ASSESSMENT CRITERIA

External lighting has been designed out? :	Yes
Is external lighting specified in accordance with the relevant criteria? :	

Credits awarded : 1.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

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

### KPI

Total on-site and/or near-site LZC energy generation :	
Expected energy demand and CO <sub>2</sub> -eq emissions reduction resulting from passive design measures :	
Energy demand :	
CO <sub>2</sub> -eq emissions :	
Expected energy demand and CO <sub>2</sub> -eq emissions reduction resulting from passive design measures as a percentage :	
Energy demand :	
CO <sub>2</sub> -eq emissions :	

Expected reduction in CO<sub>2</sub>-eq emissions resulting from the LZC technologies :

Expected reduction in CO<sub>2</sub>-eq emissions resulting from the LZC technologies as a percentage :

Credits awarded : 1.0

## 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.

Site : Garstang Road

Credits awarded : 0.0

## Ene 06 Energy efficient transportation systems

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Energy consumption : Yes

Energy efficient features - Lifts : Yes

Credits awarded : 2.0

## Ene 07 Energy efficient laboratory systems

To encourage laboratory areas that are designed to minimise their operational energy consumption and associated CO<sub>2</sub> emission

Site : Garstang Road

Credits awarded : 0.0

## Ene 08 Energy efficient equipment

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

Site : Garstang Road

Credits awarded : 0.0

## Tra 01 Transport assessment and travel plan

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Travel plan :	Yes
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Credits awarded : 2.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Prerequisite - Issue Tra 01 'Transport assessment and travel plan' credits achieved :	Yes
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Location type (based on existing AI) :	25 &le; AI < 40 (urban centres)
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Number of points achieved overall :	2
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Credits awarded : 3.0



## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Are all water components subject to clinical requirements? :	Yes
Please select the calculation procedure used :	Standard approach
Credits awarded :	3
Exemplary performance :	

### KEY PERFORMANCE INDICATORS

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 :	

Credits awarded : 3.0

## Wat 02 Water monitoring

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

Site : Garstang Road

### 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) :	No

Credits awarded : 1.0

## Wat 03 Water leak detection

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

Site : Garstang Road

## ASSESSMENT CRITERIA

Leak detection system :	Yes
Flow control devices :	Yes

Credits awarded : 2.0

## Wat 04 Water efficient equipment

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

Site : Garstang Road

Credits awarded : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Total Mat 01 credits achieved - taken from the Mat 01/02 Results Submission Tool :	4
Total Exemplary credits achieved - taken from the Mat 01/02 Results Submission Tool :	0

Credits awarded : 4.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Mat 02 credit achieved - Taken from the Mat 01/02 Results Submission Tool. :	0
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Credits awarded : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Prerequisite: All timber and timber based products are 'Legally harvested and traded timber' :	Yes
--	-----

Has the enabling sustainable procurement credit been achieved? :

Percentage of available for percentage of RSM points achieved :

Credits awarded : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Protecting vulnerable parts of the building from damage and exposed parts of the building from material degradation :	Yes
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Credits awarded : 1.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Material optimisation measures investigated and implemented at all relevant stages : Yes

Credits awarded : 1.0

## Wst 01 Construction waste management

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

**Site : Garstang Road**

### 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 :	

### KPI

Measure/units for the data being reported : m<sup>3</sup>

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 : 4.0**

## 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.

**Site : Garstang Road**

### 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 : 0.0**

## Wst 03 Operational waste

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

Site : Garstang Road

### 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 : 1.0

## 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.

Site : Garstang Road

Credits awarded : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Resilience of structure, fabric, building services and renewables installation :	
Exemplary level - responding to climate change :	

Credits awarded : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Design for disassembly and functional adaptability - recommendations :	Yes
Disassembly and functional adaptability - implementation :	

Credits awarded : 1.0

## LE 01 Site selection

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Percentage of proposed development's footprint on previously occupied land: :	100 %
Contaminated land :	No

Credits awarded : 1.0

## LE 02 Identifying and understanding the risks and opportunities for the site

To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.

Site : Garstang Road

### ASSESSMENT CRITERIA

Prerequisite - Assessment route selection :	Route 2
Prerequisite - The client or contractor confirms monitoring of compliance with all Relevant UK and EU or international legislation :	Yes
Survey and Evaluation :	Yes
Determining the ecological outcomes of the site :	Yes
Exemplary level - Determining the ecological outcomes of the site :	

Credits awarded : 2.0

## LE 03 Managing negative impacts on ecology

To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.

Site : Garstang Road

### ASSESSMENT CRITERIA

Which assessment route is being followed? :	Route 2
Prerequisite - Identification and understanding the risks and opportunities for the site :	Yes
Planning, liaison and implementation :	Yes
Managing negative impacts of the project :	1

Credits awarded : 2.0

## LE 04 Change and enhancement of ecological value

To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.

Site : Garstang Road

#### ASSESSMENT CRITERIA

Which assessment route is being followed? :	Route 2
Prerequisite - Identification and understanding the risks and opportunities for the site :	Yes
Liaison, implementation and data (Route 2 only) :	Yes
Change and enhancement of ecology (route 2 only) :	1

Credits awarded : 2.0

## LE 05 Long term impact on biodiversity

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

Site : Garstang Road

#### ASSESSMENT CRITERIA

Which assessment route is being followed? :	Route 2
Prerequisite - Roles and responsibilities, implementation, statutory obligations :	Yes
Liaison, monitoring implementation, evolving management and maintenance solutions :	Yes
Landscape and management plan :	Yes

Credits awarded : 2.0



## Pol 01 Impact of refrigerants

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

Site : Garstang Road

### ASSESSMENT CRITERIA

Refrigerant containing systems installed in the assessed building? : Yes

Prerequisite: All systems (with electric compressors) comply with BS EN 378:2016 (parts 2 and 3) and (where applicable) Institute of Refrigeration Ammonia Refrigeration Systems code of practice? : Yes  
Total Direct Effect Life Cycle CO<sub>2</sub>eq (DELCO). 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? :

BREEAM compliant automatic refrigerant leak detection system installed and able to manage the remaining refrigerant charge :

Credits awarded : 2.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

How many credits have been achieved? : 0

Credits awarded : 0.0

## 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.

Site : Garstang Road

### ASSESSMENT CRITERIA

Prerequisite: Has an appropriate consultant demonstrated and confirmed the development's compliance with all sought credits? : Yes

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

Flooding of property will not occur in the event of local drainage system failure : Yes

Has the Surface Water Run-Off - Volume credit been achieved? : Yes

Minimising watercourse pollution : Yes

Credits awarded : 5.0

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## 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.

**Site : Garstang Road**

### ASSESSMENT CRITERIA

External lighting has been designed out? : Yes

Does external lighting meet all relevant criteria? :

**Credits awarded : 1.0**

## Pol 05 Noise attenuation

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

**Site : Garstang Road**

### ASSESSMENT CRITERIA

Noise-sensitive areas/buildings within 800m radius of the development : Yes

Is the site compliant with all relevant criteria? : Yes

**Credits awarded : 1.0**

## 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.

**Site : Garstang Road**

### ASSESSMENT CRITERIA

Number of 'approved' innovation credits achieved? :	0
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**Credits awarded : 0.0**