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BREEAM Refurbishment and Fit-Out (RFO) Pre-Assessment Report Rev0

70 High Street,
Manchester

9 August 2023

Contents

1. Introduction 3
Planning Requirements – Manchester City Council 3
2. BREEAM Refurbishment and Fit-Out – Overview 4
RIBA Stages 5
3. BREEAM Pre-Assessment Tracker Report 6

Appendices

Appendix A BREEAM and RIBA Timeline
Appendix B BREEAM Pre-Assessment Tracker Report

Prepared by	Checked by	Date	Project
Carina Hassall BSc (Hons)	Peter Kinsella BSc (Hons)	9 August 2023	10364 Rev0

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1. Introduction

This BREEAM Refurbishment and Fit-Out (RFO) Pre-Assessment Estimator Report has been prepared to support the planning application for the proposed change of use of, and extension to, 70 High Street, Manchester to comprise a hotel.

Planning Requirements – Manchester City Council

Manchester Council require planning applications to include 'a BREEAM pre-assessment rating through the submission of a pre-estimator report which should demonstrate that a rating level of at least 'Very Good' would be achieved. Where this standard is not achievable clear reasons why need to be set out within the submission.

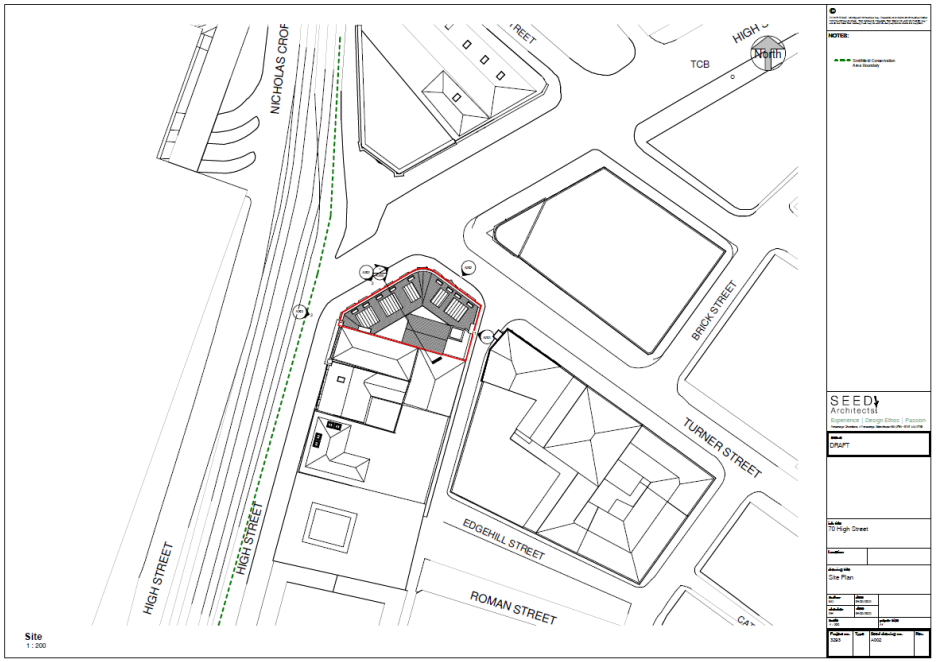


Figure 1 - Site Location

2. BREEAM Refurbishment and Fit-Out – Overview

The BREEAM UK Non-domestic Refurbishment and Fit-out 2014 scheme can be used to assess the environmental life cycle impacts of existing non-domestic buildings at the refurbishment and fit-out stages. The definition of 'refurbishment' encompasses a wide range of works to improve the performance, function and overall condition of an existing building. 'Fit-out' also encompasses a wide range of works, however it is more associated with internal works to the building including the first fit-out of a newly constructed building or re-fitting an existing building.

The BREEAM UK Non-domestic Refurbishment and Fit-out 2014 scheme provides a modular set of criteria that are applied depending upon the scope of works for a particular project type including:

Part 1: Fabric and Structure
Part 2: Core Services
Part 3: Local Services
Part 4: Interior Design

The scheme is split into these assessment parts to allow the scheme to reflect the aspects of a building that are tenant or landlord responsibilities, as well as the varied life cycle stages that each component or element is upgraded. For example, interior finishes are typically replaced on a 5-10 year cycle compared to the fabric and structure of a building that may be upgraded after 60+ years. For commercial buildings, parts 1 and 2 typically reflect the aspects of a building that are landlord responsibilities, with parts 3 and 4 typically being aspects of the building that are tenant responsibilities although this will vary between specific projects.

Under BREEAM RFO there are nine categories of sustainable design, within which there 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 rating of BREEAM RFO achieved.

In this instance, we are considering all 4 parts, and are aiming to achieve a rating of 'Very Good', for which a minimum score of 55% is required.

Minimum Standards

There are certain sub-categories within the BREEAM Non - Domestic Refurbishment where minimum standards must be met. These are dependent upon the rating of BREEAM RFO 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.

RIBA Stages

It is important to note that within certain categories, BREEAM stipulates the RIBA stage by which the criteria should be addressed. This needs to be reflected in the evidence. For reference, a copy of the BREEAM and RIBA timeline is provided in **Appendix A**.

3. BREEAM Pre-Assessment Tracker Report

A BREEAM Pre-Assessment Report is provided in **Appendix B**.

By carrying out a PAE at an early stage, BREEAM can be given the earliest possible consideration by the Design Team. As such, many of the 'early RIBA Stage' credits can be given priority, as well as giving the Design Team the time to factor in the credits which will provide real benefits to the building and building users.

Currently, based on the proposals, and on our experience of what credits may be feasibly achieved for a site and proposals of this nature, the potential score is shown as 56.92%.

This Pre-Assessment Tracker is an early guide in the BREEAM assessment process and is based on a number of assumptions. A more detailed PAE (or Initial Feasibility Assessment) should be prepared as early on the Design Process as possible in order to take into account comments from the team and to refine the BREEAM strategy.

BREEAM Rating

	Credits available	Credits achieved	Credits targeted	% Credits achieved	Weighting	Category score	Target score
Man	21.0	15.0	15.0	71.43%	15.46%	11.04%	11.04%
Hea	20.0	14.0	14.0	70.00%	17.57%	12.29%	12.29%
Ene	23.0	8.0	8.0	34.78%	17.06%	5.93%	5.93%
Tra	7.0	3.0	3.0	42.86%	6.01%	2.57%	2.57%
Wat	8.0	8.0	8.0	100.00%	6.87%	6.87%	6.87%
Mat	13.0	6.0	6.0	46.15%	16.10%	7.43%	7.43%
Wst	10.0	6.0	6.0	60.00%	8.05%	4.83%	4.83%
Le	0.0	0.0	0.0	0.00%	0.00%	0.00%	0.00%
Pol	13.0	6.0	6.0	46.15%	12.88%	5.94%	5.94%
Inn	10.0	0.0	0.0	0.00%	10.00%	0.00%	0.00%
Total	125.0	66.0	66.0	52.80%	-	56.92%	56.92%
Rating	-	-	-	-	-	★★★☆☆ Very Good	Very Good

Figure 2 – Potential BREEAM Rating

Appendices

Appendix A BREEAM and RIBA Timeline

BREEAM UK Non-Domestic Refurbishment and Fit-out 2014 scheme assessment timeline

Guidance Note GN31

The assessment timeline has been produced to assist with optimising project sustainability performance. It outlines at which RIBA stage credits should be addressed and ideally when these should be considered by the design team, planner, contractors, owners/occupiers and other members of the project team to achieve the highest possible BREEAM rating at the minimum cost. It demonstrates that where BREEAM advice is taken on too late within the design and construction phases a number of BREEAM credits may not be achieved.

Due to the nature of Refurbishment and Fit-Out works, some projects may have short timescales and considerable overlap between stages. This can mean that some actions will have to be completed at a later RIBA stage than indicated in this document. However, it is important to consider that early decisions can create opportunities and barriers that impact on the ability of project teams to meet BREEAM requirements at a later stage in the project by limiting design and/or specification choices. This may apply to a number of issues in the assessment timeline below. The use of a yellow/ orange colour grading in this document is intended to indicate the 'ideal time' for assessors to complete evidence.

		Sub credits	RIBA Stages of Work - 2013 onwards (Old RIBA equivalent)						
			0	1 (A-B)	2 (C)	3 (D)	4 (E-F)	5	6 (J-K)
			Strategic Definition	Prepartion and Brief	Concept Design	Developed Design	Technical Design	Construction	Handover and Close Out
Management									
Man 01	Project brief and design	Stakeholder consultation			Consultations		Feedback		
		Sustainability champion		Appointment	Agree BREEAM target				
Man 02	Life cycle cost and service life planning	Life cycle cost			Elemental LCC		Component level LCC plan		
		Capital cost reporting							
Man 03	Responsible construction practices	Environmental management							
		Considerate construction							
		Sustainability champion					Appointment		
		Monitoring of construction site impacts							

	Design/management influence
	Design/client decision
	Design/management changes at a high cost and higher risk of not achieving credit
	No further changes can be made
	RIBA stage stipulated within BREEAM criteria
	Issue not applicable to BREEAM UK Non-domestic Refurbishment and Fit-out 2014 scheme

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BREEAM UK Non-Domestic Refurbishment and Fit-out 2014 scheme assessment timeline

July 2017



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BREEAM UK Non-Domestic Refurbishment and Fit-out 2014 scheme assessment timeline

July 2017



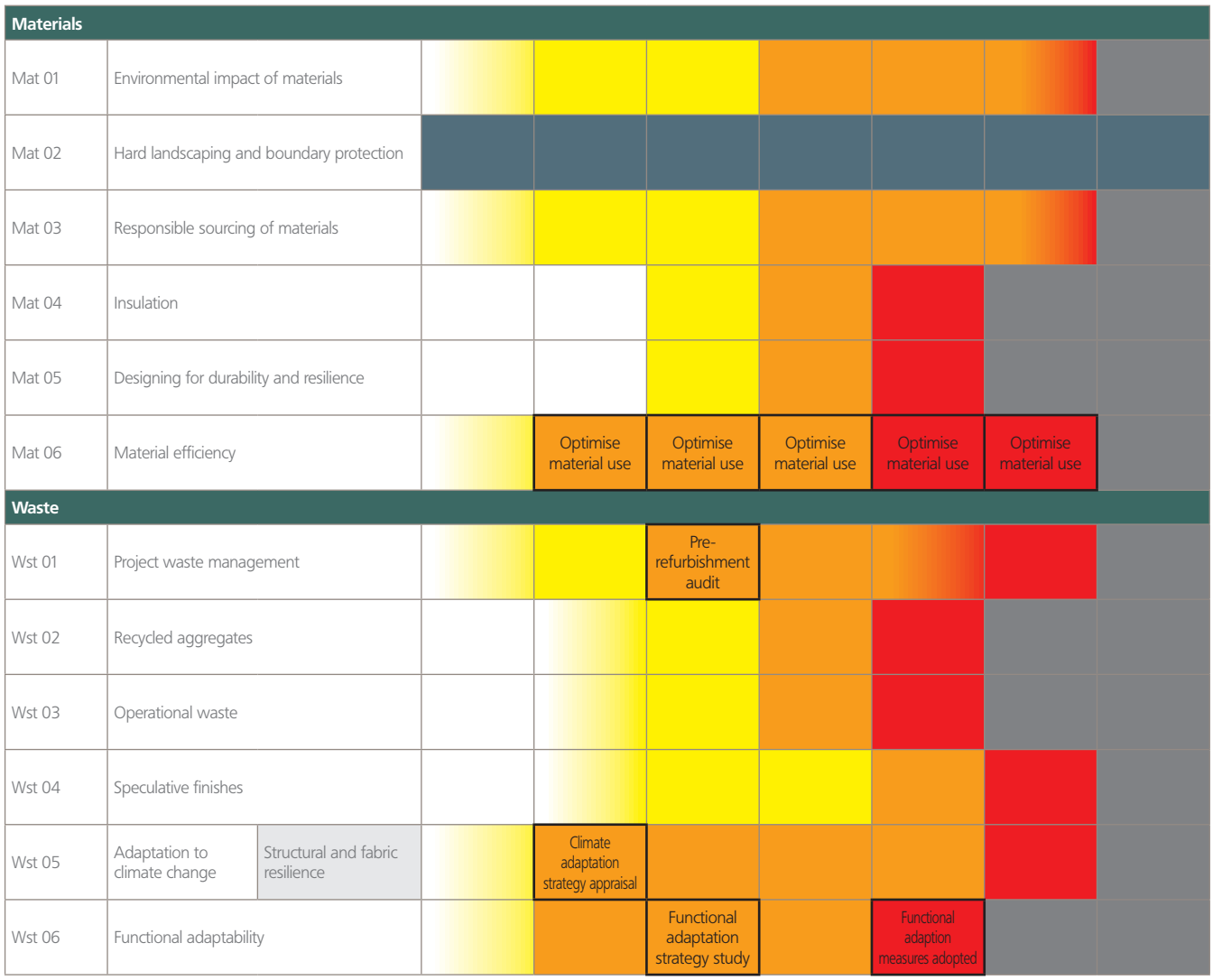
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Appendix B BREEAM Pre-Assessment Tracker Report

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BREEAM UK Refurbishment & Fit-out 2014

70 High Street
Pre-assessment

02 August 2023 Assessment Report



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

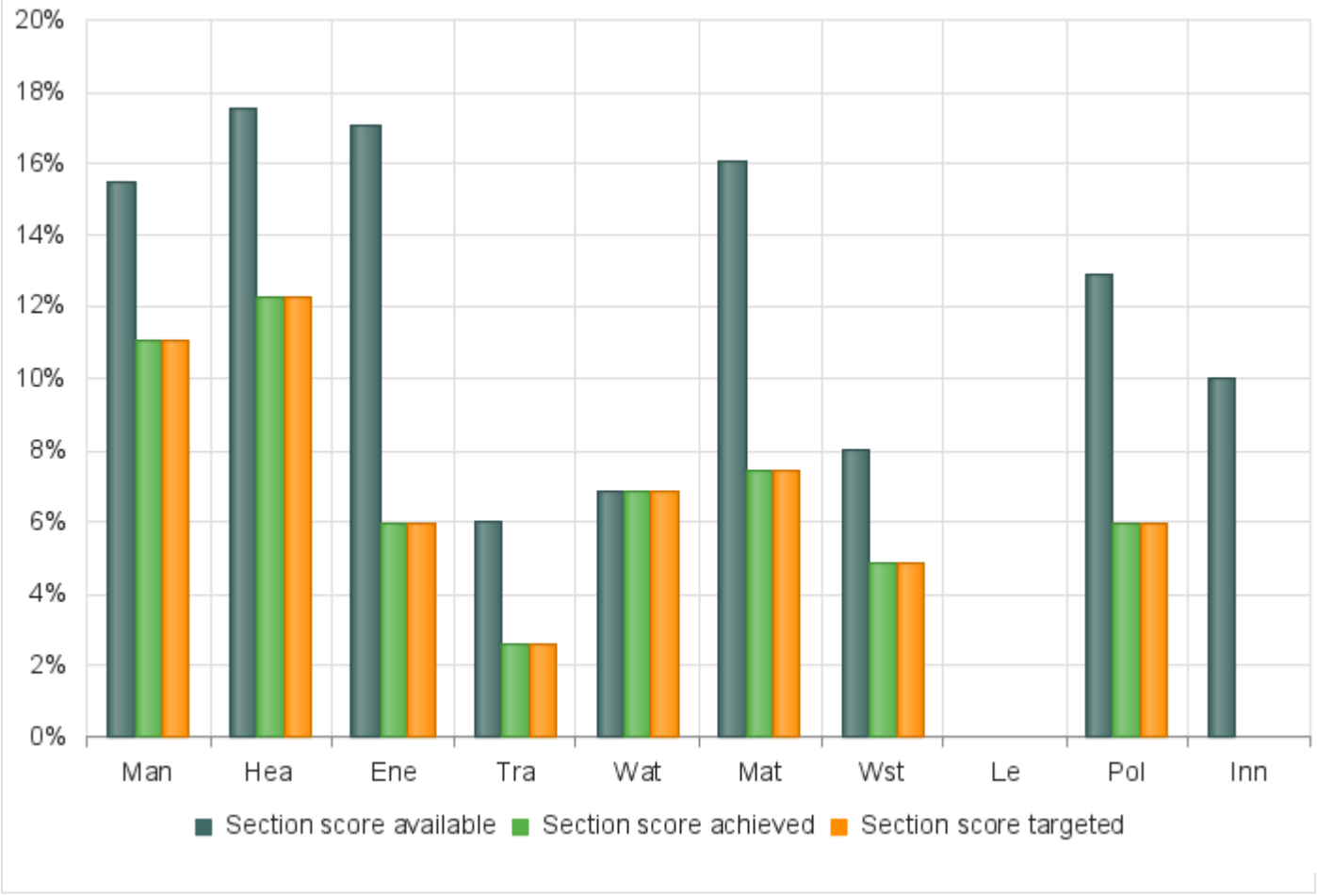
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Mat	13.0	6.0	6.0	46.15%	16.10%	7.43%	7.43%
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Total	125.0	66.0	66.0	52.80%	-	56.92%	56.92%
Rating	-	-	-	-	-	★★★☆☆ **Very Good**	Very Good

Performance by environmental category



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: 0 / 1

Man 04 Commissioning and handover
4 / 4

Man 05 Aftercare
3 / 3 X: 0 / 1

Health and Wellbeing

Hea 01 Visual comfort
4 / 7 X: 0 / 1

Hea 02 Indoor air quality
2 / 5 X: 0 / 2

Hea 03 Safe containment in laboratories
N/A

Hea 04 Thermal comfort
3 / 3

Hea 05 Acoustic performance
4 / 4

Hea 06 Safety and security
1 / 1

Energy

Ene 01 Reduction of energy use and carbon emissions
3 / 15 X: 0 / 5

Ene 02 Energy monitoring
1 / 1

Ene 03 External lighting
1 / 1

Ene 04 Low carbon design
0 / 3

Ene 05 Energy efficient cold storage
N/A

Ene 06 Energy efficient transportation systems
3 / 3

Ene 07 Energy efficient laboratory systems
N/A

Ene 08 Energy efficient equipment
N/A

Ene 09 Drying space
N/A

Transport

Tra 01 Sustainable transport solutions
1 / 5

Tra 02 Proximity to Amenities
1 / 1

Tra 03 Cyclist facilities
N/A

Tra 04 Maximum car parking capacity
N/A

Tra 05 Travel plan
1 / 1

Water

Wat 01 Water consumption
5 / 5 X: 0 / 1

Wat 02 Water monitoring
1 / 1

Wat 03 Water leak detection and prevention

2 / 2

Wat 04 Water efficient equipment

N/A

Materials

Mat 01 Life cycle impacts

2 / 6 X: 0 / 1

Mat 03 Responsible sourcing

1 / 4 X: 0 / 1

Mat 04 Insulation

1 / 1

Mat 05 Designing for durability and resilience

1 / 1

Mat 06 Material efficiency

1 / 1

Waste

Wst 01 Construction waste management

4 / 7 X: 0 / 1

Wst 02 Recycled aggregates

N/A

Wst 03 Operational waste

1 / 1

Wst 04 Speculative finishes

N/A

Wst 05 Adaptation to climate change

0 / 1 X: 0 / 1

Wst 06 Functional adaptability

1 / 1

Land use and ecology

Le 02 Protection of ecological features

N/A

Le 04 Enhancing site ecology

N/A

Le 05 Long term impact on biodiversity

N/A

Pollution

Pol 01 Impact of refrigerants

2 / 3

Pol 02 Nox Emissions

0 / 3

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

2 / 5 X: 0 / 1

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

Part 1 : Fabric and structure : Yes

Part 2 : Core services : Yes

Category assessment
Management (Man)

Man 01 Project Brief and design

Assessment criteria	
Stakeholder consultation (project delivery) :	Yes
Stakeholder consultation (third party) :	Yes
Sustainability champion (design) :	
Sustainability champion (monitoring progress) :	

Credit scoring	
Credits scored :	2

Credits awarded : 2

Man 02 Life cycle cost and service life planning

Assessment criteria	
Elemental life cycle cost (LCC) :	
Component level LCC plan :	
Capital cost reporting :	Yes
Capital cost of the project :	

Credit scoring	
Credits scored :	1

Credits awarded : 1

Man 03 Responsible construction practices

Assessment criteria	
Is all timber used in the project 'legally harvested and traded timber'? :	Yes
Environmental management :	Yes

Construction stage sustainability champion :	
Considerate construction :	2
Has the project achieve the minimum standard for an Excellent or Outstanding rating? :	
Monitoring of refurbishment or fit-out site impacts :	Yes
Utility consumption :	Yes
Transport of construction materials and waste :	Yes
Exemplary level criteria - considerate construction :	

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 :	
Greenhouse gas emissions (intensity) - site processes :	

Key Performance Indicators: Construction site use of freshwater resources

Use of freshwater resource (total) - site processes :	
Use of freshwater resource (intensity) - site processes :	

Credit scoring

Credits scored :	5
Exemplary credits scored :	0

Credits awarded : 5

Man 04 Commissioning and handover

Assessment criteria

Commissioning schedule and responsibilities :	Yes
Commissioning building services :	Yes
Commissioning building fabric :	Yes

Handover :	Yes
Has a Building User Guide been developed prior to handover? :	Yes

Credit scoring

Credits scored :	4

Credits awarded : 4

Man 05 Aftercare

Assessment criteria

Aftercare support :	Yes
Seasonal commissioning :	Yes
Post occupancy evaluation :	Yes
Exemplary level criteria :	

Credit scoring

Credits scored :	3
Exemplary credits scored :	0

Credits awarded : 3

Health and Wellbeing (Hea)

Hea 01 Visual comfort

Assessment criteria	
Glare control :	Yes
Daylighting :	Yes
View out :	Yes
Internal and external lighting levels, zoning and controls :	Yes
Exemplary level daylighting :	

Credit scoring	
Credits scored :	4
Exemplary credits scored :	0

Credits awarded : 4

Hea 02 Indoor air quality

Assessment criteria	
Min. sources of air pollution: indoor air quality plan :	Yes
Ventilation :	
VOCs (products) :	Yes
VOCs (post construction) :	Yes
Adaptability - potential for natural ventilation :	
Exemplary level VOCs (products) :	

Key performance indicators: Indoor air quality	
Concentration levels of formaldehyde :	
Total volatile organic compound (TVOC) concentration :	

Credit scoring

Credits scored :	2
Exemplary credits scored :	0

Credits awarded : 2

Hea 03 Safe containment in laboratories

Assessment criteria - N/A

Hea 04 Thermal comfort

Assessment criteria

Thermal modelling :	Yes
Criterion 4 - Impact of fit-out on thermal comfort :	Yes
Adaptability - for a projected climate change scenario :	Yes
Thermal zoning and control :	Yes

Key Performance Indicators: Thermal comfort

Predicted Mean Vote (PMV) :

Predicted Percentage Dissatisfied (PPD) :

Key Performance Indicators: Adaptability

Predicted Mean Vote (PMV) :

Predicted Percentage Dissatisfied (PPD) :

Credit scoring

Credits scored :	3
Exemplary credits scored :	0

Credits awarded : 3

Hea 05 Acoustic performance

Assessment criteria

Acoustic performance standards and testing requirements complied with :	Yes

Credit scoring

Credits scored :	4

Credits awarded : 4

Hea 06 Safety and security

Assessment criteria

Security of site and building :	Yes

Credit scoring

Credits scored :	1

Credits awarded : 1

Energy (Ene)

Ene 01 Reduction of energy use and carbon emissions

Assessment option

Which option is being followed :	Option 1: Whole building energy model

Building Score

Country :	England
Upload existing building '_epc.inp' file :	
Upload proposed building '_epc.inp' file :	
Credits :	3.0
Actual (existing) building energy demand (DemEx) :	712.0 MJ/m2
Reference building energy demand (DemRef) :	213.87 MJ/m2
Actual (proposed) building energy demand (DemProp) :	524.07 MJ/m2
Actual (existing) building primary energy consumption (PEEx) :	651.95 kWh/m2
Reference building primary energy consumption (PERef) :	126.74 kWh/m2
Actual (proposed) building primary energy consumption (PEProp) :	1004.23 kWh/m2
Actual (existing) building CO2 emissions (BEREx) :	38.19 KgCO2/m2
Reference building CO2 emissions (SER) :	11.56 KgCO2/m2
Actual (proposed) building CO2 emissions (BERProp) :	55.77 kgCO2/m2
Building energy demand individual parameter EPR (Energy performance Ratio) :	0.6
Primary energy consumption individual parameter EPR (Energy performance Ratio) :	0.0
Building CO2 emissions individual parameter EPR (Energy performance Ratio) :	0.0
EPRNDR (Energy Performance Ratio Non Domestic Refurbishment) :	0.19

Exemplary Assessment Criteria

Zero regulated carbon :	

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? :

Credit scoring

Exemplary credits scored :	0

Credits awarded : 3

Ene 02 Energy monitoring

Assessment criteria

Sub-metering of major energy consuming systems :	Yes

Credit scoring

Exemplary credits scored :	0
Credits scored :	1

Credits awarded : 1

Ene 03 External lighting

Assessment criteria

External lighting specification :	Yes

Credit scoring

Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Ene 04 Low carbon design

Assessment criteria

Passive design analysis :

Free cooling :

Low and zero carbon technologies :

Total on-site and/or near-site LZC energy generation :

Credit scoring	
Credits scored :	0
Exemplary credits scored :	0

Credits awarded : 0

Ene 05 Energy efficient cold storage

Assessment criteria - N/A

Ene 06 Energy efficient transportation systems

Assessment criteria	
Energy consumption :	Yes
Energy efficient features :	Yes

Credit scoring	
Credits scored :	3
Exemplary credits scored :	0

Credits awarded : 3

Ene 07 Energy efficient laboratory systems

Assessment criteria - N/A

Ene 08 Energy efficient equipment

Assessment criteria - N/A

Ene 09 Drying space

Assessment criteria - N/A

Transport (Tra)

Tra 01 Sustainable transport solutions

Assessment criteria	
Building type category (for purposes of Tra01 assessment :	Other building type 2
Public transport accessibility index :	7
Ref A building dedicated bus services :	No
Ref B enhanced cycle storage space provision :	No
Ref C enhanced cyclist facilities :	No
Ref D electric vehicle charging points :	No
Ref E car sharing spaces :	No
Ref F digital information points :	No
Ref G onsite facilities to reduce the need to travel :	No
Ref H improvement actions to enhance Accessibility Index :	No

Credit scoring	
Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Tra 02 Proximity to Amenities

Assessment criteria	
Close proximity and accessibility to applicable amenities :	Yes

Credit scoring	
Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Tra 03 Cyclist facilities

Assessment criteria

Building type category (for purpose of Tra03 issue assessment) :

Number of compliant cycle storage spaces provided :

Showers :

Changing facilities :

Lockers :

Drying space :

Cyclist facilities compliant :

Cycle storage spaces compliant :

Credit scoring

Credits scored :	0
Exemplary credits scored :	0

Credits awarded : 0

Tra 04 Maximum car parking capacity

Assessment criteria - N/A

Tra 05 Travel plan

Assessment criteria

Travel plan based on site specific travel survey/assessment :	Yes

Credit scoring

Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Water (Wat)

Wat 01 Water consumption

Standard approach data

Water consumption :

Water demand met via greywater/rainwater sources :

Total net water consumption :

Improvement on baseline performance :

Key performance indicator

Total net water consumption :

Default building occupancy :

Alternative approach data

Overall level achieved :

Percentage of demand met from grey or rainwater :

Credit scoring

Credits scored :	5
Exemplary credits scored :	0

Credits awarded : 5

Wat 02 Water monitoring

Assessment criteria

Water meter on the mains water supply to the building(s) :	Yes
Metering/monitoring equipment on supply to plant/building areas :	Yes
Pulsed output or other open protocol communication output :	Yes
Existing BMS connection :	No

Credit scoring

Credits scored :	1

Exemplary credits scored :	0

Credits awarded : 1

Wat 03 Water leak detection and prevention

Assessment criteria

Leak detection on building's mains water supply :	Yes
Flow control device to each sanitary area/facility :	Yes

Credit scoring

Credits scored :	2
Exemplary credits scored :	0

Credits awarded : 2

Wat 04 Water efficient equipment

Assessment criteria - N/A

Materials (Mat)

Mat 01 Life cycle impacts

Assessment criteria

Exemplary level compliant :

Options : Option 1

Option 1: Total Mat 01 points achieved :

Credit scoring

Credits scored : 2

Exemplary credits scored : 0

Credits awarded : 2

Mat 03 Responsible sourcing

Assessment criteria

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

Is there a documented sustainable procurement plan : Yes

Have at least three material types been responsibly sourced (criterion 1) :

% of available RSM points achieved :

Credit scoring

Credits scored : 1

Exemplary credits scored : 0

Credits awarded : 1

Mat 04 Insulation

Assessment criteria

Embodied impact - insulation index :

Credit scoring	
Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Mat 05 Designing for durability and resilience

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

Credit scoring	
Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Mat 06 Material efficiency

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

Credit scoring	
Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Waste (Wst)

Wst 01 Construction waste management

Assessment criteria

Pre-refurbishment audit :	Yes
Resource management plan :	Yes
% of points achieved for direct re-used or recycled (table 64) :	

Key performance indicator - construction waste

Measure/units for the data being reported :

Non-hazardous construction waste (excluding strip-out/demolition/excavation) :
Exemplary level compliant - Resource efficiency and diversion of waste from landfill :
Non-hazardous non-demolition construction waste diverted from landfill :

Total non-hazardous demolition waste generated :

Non-hazardous demolition waste diverted from landfill :

Material for reuse :

Material for recycling :

Material for energy recovery :

Hazardous waste to disposal :

Credit scoring

Credits scored :	4
Exemplary credits scored :	0

Credits awarded : 4

Wst 02 Recycled aggregates

Assessment criteria - N/A

Wst 03 Operational waste

Assessment criteria

Segregation and storage of operational recyclable waste volumes :	Yes
Static waste compactor(s) or baler(s) :	N/A
Vessel(s) for composting suitable organic waste :	N/A

Credit scoring

Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Wst 04 Speculative finishes

Assessment criteria - N/A

Wst 05 Adaptation to climate change

Assessment criteria

Adaptation to climate change - structural and fabric resilience :	
Exemplary level - responding to adaptation to climate change :	

Credit scoring

Credits scored :	0
Exemplary credits scored :	0

Credits awarded : 0

Wst 06 Functional adaptability

Assessment criteria

Functional adaptability :	Yes

Credit scoring

Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Land use and ecology (Le)

Le 02 Protection of ecological features

Assessment criteria - N/A

Le 04 Enhancing site ecology

Assessment criteria - N/A

Le 05 Long term impact on biodiversity

Assessment criteria - N/A

Pollution (Pol)

Pol 01 Impact of refrigerants

Assessment criteria

Does the building require the use of refrigerants within its installed plant/systems? :	Yes
BS EN 378:2008 and IoR Ammonia Refrigeration System CoP (where applicable)? :	Yes
Global Warming Potential of the specified refrigerant(s) 10 or less? :	Yes
Total Direct Effect Life Cycle CO2eq. Emissions from the system :	
Cooling/Heating capacity of the system :	
BREEAM compliant refrigerant leak detection and containment :	Yes

Credit scoring

Credits scored :	2
Exemplary credits scored :	0

Credits awarded : 2

Pol 02 Nox Emissions

Assessment criteria

Nox emission level - space heating :	
Nox emission level - cooling :	
Nox emission level - water heating :	
Does this building meet BREEAMs compliance note relating to the definition of a highly insulated building? :	
Energy consumption: heating and hot water :	

Credit scoring

Credits scored :	0
Exemplary credits scored :	0

Credits awarded : 0

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

Assessment criteria

Annual probability of flooding :	Low
Avoidance of flooding :	
Flood resilience of resistance strategy :	
Neutral impact on surface water :	Yes
Reducing run-off :	
Minimising watercourse pollution :	
Exemplary level compliant :	

Credit scoring

Credits scored :	2
Exemplary credits scored :	0

Credits awarded : 2

Pol 04 Reduction of Night Time Light Pollution

Assessment criteria

External lighting specification :	Yes

Credit scoring

Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Pol 05 Noise attenuation

Assessment criteria

Noise-sensitive areas/buildings within 800m radius of the development :	Yes
Noise impact assessment and, if applicable, noise attenuation measures :	Yes

Credit scoring	
Credits scored :	1
Exemplary credits scored :	0

Credits awarded : 1

Innovation (Inn)

Inn 01 Innovation

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

Credit scoring	
Credits scored :	0
Exemplary credits scored :	0

Credits awarded : 0