



ENERGY REPORT
building certification | compliance | testing

BREEAM
Pre-assessment Report

81 London Street, Reading, RG1 4QA
London Street Reading Limited
J03978
17th June 2026

Registry of Amendments

Revision	Date	Amendment Details	Prepared by
0	17/06/26	First Issue	S Hughes
1			

About Energy Report Limited

A specialist building energy and sustainability consultancy offering expertise and experience to our clients within the construction and building sectors. Offering a full inclusive service from design to completion for any energy efficiency or sustainability issue.

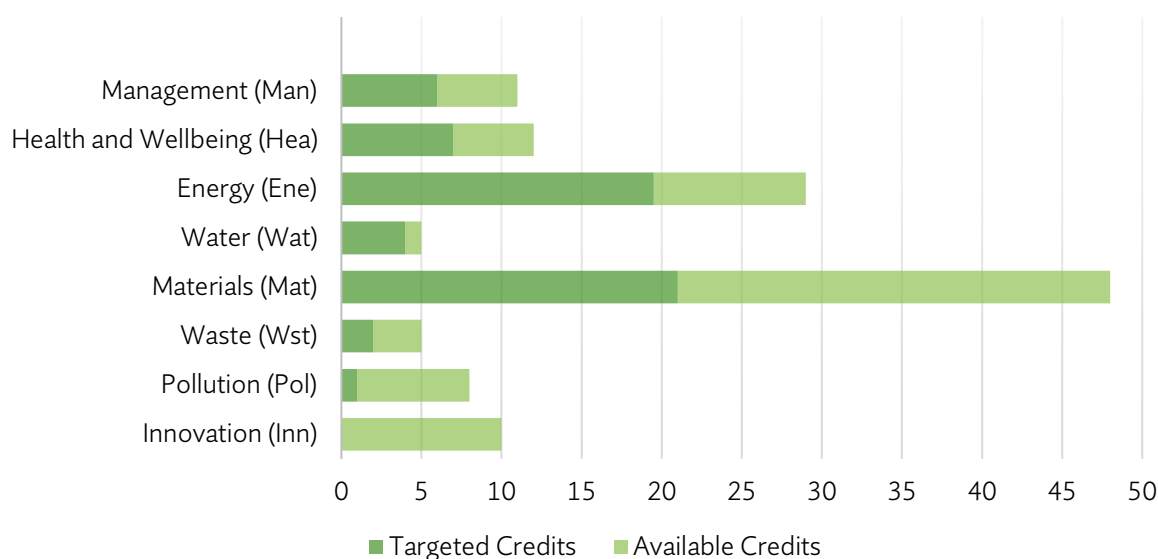
1. EXECUTIVE SUMMARY

This BREEAM Pre-assessment has been written by Energy Report on behalf of London Street Reading Limited to support a proposed domestic refurbishment scheme located at 81 London Street, Reading. The pre-assessment has been based on details supplied by the client and wider design team to-date, in addition to further desk-based study, best practice and historical data.

Scope of Assessment	
Scheme Selection	BREEAM Domestic Refurbishment 2014
Project Category	2: Domestic conversions and change of use projects
Building Type	Low - Rise Flat
Scale	Small scale
Target Rating	Very Good $\geq 55\%$

Scenario	Min Standards Met	Score	BREEAM Rating
Energy report proposed	Yes	59.62%	Very Good

Credit Distribution



BREEAM rating



Development Overview

The proposed development consists of the conversion of third-floor office space into residential use, creating two three-bedroom flats, along with associated works, landscaping, and infrastructure. The site is located at 81 London Street, Reading, RG1 4QA.



PROPOSED REAR ELEVATION



PROPOSED FRONT ELEVATION



PROPOSED SECTION A-A

Proposed Elevation and Section

2. ASSESSMENT CRITERIA

2.1. BREEAM SCORE

The overall target score for the project is currently 59.62%, which will deliver a 'Very Good' rating. The credits targeted are considered by the energy assessor and the design team to be realistic and achievable on site.

The targeted score is achieved through a combination of confirmed and anticipated credits. From a BREEAM Assessor's perspective, anticipated (unconfirmed) credits typically provide a degree of contingency within the overall scoring approach, generally equivalent to approximately 5–10% of the total assessment score.

Additional potential credits have been included to improve the current score and provide a sufficient buffer to mitigate against the loss of any credits during the construction phase. BREEAM standards can be challenging to achieve, and the Design Stage report should be carefully reviewed by the design and construction teams to ensure all targeted credits are delivered as the project progresses.

Section 5 lists the specific credits proposed as part of the BREEAM 'Very Good' rating

3. ASSESSMENT METHODOLOGY

3.1. BREEAM

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's leading sustainability rating scheme for the built environment. Setting the standard for best practice in sustainable design.

As of 2026, BREEAM has certified over 600,000 buildings globally, with some of these certifications falling Domestic refurbishment category.

BREEAM is developed, operated and maintained by BRE Global Ltd and the operation and direction of the method is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry.

stakeholders. Further information about BREEAM, including copies of the BREEAM standards, can be found at www.breeam.org.

3.2. AIMS OF BREEAM

BREEAM rewards designs that take positive steps to minimise their environmental impacts with the primary aims being:

- To mitigate the life cycle impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits
- To provide a credible, environmental label for buildings
- To stimulate demand for sustainable buildings

3.3. BREEAM DOMESTIC REFURBISHMENT

BREEAM Domestic Refurbishment 2014 scheme is a performance-based assessment method and certification scheme for two categories of buildings:

Category 1: Alterations to existing dwellings and extensions

This applies when an existing dwelling is being improved or extended. It includes major alterations to at least one thermal element to walls, installing new building services (e.g. boiler or heating systems), internal renovations or loft conversions.

To qualify, the work must improve the home's energy efficiency (EPC rating) by at least 3 points. For extensions, the whole dwelling (not just the extension) is assessed, meaning improvements to the existing dwelling are also required.

Category 2: Domestic conversions and change of use projects

This applies where a new dwelling is formed by change of use, rather than simply refurbishing it. For example, converting offices into dwellings, or changing the number of dwellings (e.g. one house into flats or flats into a single home).

In some cases, mixtures of refurbishment and new construction can be assessed together, depending on how the dwellings are formed.

Projects are evaluated during both the design and post-construction phases using a framework that categorises environmental issues into the following sections:

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

3.4. Stages of the BREEAM assessment

Phase one: Design stage (DS)

The Design Stage (DS) assessment assigns a rating to the refurbishment as planned, commonly known as the “interim” rating. This assessment is ideally conducted before the refurbishment begins and is termed “interim” because it does not reflect the final BREEAM Domestic Refurbishment rating of the completed dwelling - An interim certificate will be provided upon completion of the DS assessment.

Phase two: Post Refurbishment Stage (PRS)

The PRS assessment and BREEAM rating confirms the final 'as refurbished' performance of the building and will require the BREEAM assessor to carry out a site visit - Final certification will be awarded upon completion of the PRS assessment.

4. MANDATORY CREDITS

BREEAM ensures that key environmental issues like energy, water, and waste are not overlooked in pursuit of a particular rating by setting minimum performance standards in these areas. While most BREEAM credits are flexible and can be traded—meaning non-compliance in one area can be offset by exceeding standards in another—the minimum standards ensure that essential environmental criteria are always met.

Minimum Standards for Outstanding		
Ene 02	Energy efficiency rating post-refurbishment	2 Credits (a minimum EER of 65)
Wat 01	Internal water use	1 Credit (129 to < 140 litres/person/day)
Hea 05	Ventilation	1 Credit (building Regulations Approved Document Part F compliance)
Hea 06	Safety	1 Credit (compliant fire detection and alarm system)
Mat 01	Environmental impact of materials	Criterion 1 only (All timber and timber-based products used on the project is 'legally harvested and traded timber')

Score Summary

BREEAM Section	Credits Available	Credits Targeted	Weighting	Target Score
Management	11	6	12%	6.55%
Health and Wellbeing	12	7	17%	9.92%
Energy	29	19.5	43%	28.91%
Water	5	4	11%	8.80%
Materials	48	21	8%	3.50%
Waste	5	2	3%	1.20%
Pollution	8	1	6%	0.75%
Innovation	10	0	10%	0%
Total	128	61		59.62%
			Rating	Very Good

5. CRITICAL EARLY CREDITS

The following targeted credits have 'early stage' requirements that should be addressed before the end of RIBA Stage 2, this is typically considered the planning submission date. While some actions can be implemented later, it is strongly advisable to demonstrate that all early-stage works have been initiated before the end of Stage 2. Delaying implementation can increase the risk of not achieving the targeted credits, potentially jeopardising the target rating and/or increasing costs later. The general principle is that the project team must show that any later delivery of required actions or surveys has not negatively impacted the ability to meet the credit requirements.

Early Action Credits			
Category	Credit	Action	Typical responsibility
Hea 01 – Daylighting	1 Credit – Maintaining good daylighting	Completed, signed Checklist A-7 (Daylight Factor) AND relevant calculations showing average daylight factor, no-skyline position, and % of working plane receiving direct sky light.	Architect
Hea04- InclusiveDesign	1 Credit - Minimum accessibility	Copy of Access Statement (Part M Sections 6–9), completed by an inclusive design champion/NRAC consultant and signed by the developer and assessor.	Architect
Hea 05–Ventilation	1 Credit – Minimum ventilation	Written confirmation or design-stage commitment detailing background, extract, and purge ventilation levels	Architect
Ene01–Improvement in energy efficiency	6 Credits – Improving the dwelling's energy efficiency rating	Design-stage EPC or SAP 2012 showing pre- and post-refurbishment energy ratings, plus BREEAM energy calculator output	Energy Consultant
Ene04- Renewable technology	1 Credit - 10% by low/zero carbon technology	Relevant SAP/RdSAP calculations, BREEAM energy calculator output, and evidence that low/zero carbon technologies meet the relevant standards	Energy Consultant
Mat01– Environmental impact of materials	10 Credits – Environmental impact of materials	Specification and drawings detailing materials, locations, and areas, plus Mat 01 calculator output with Green Guide ratings; include EPDs and environmental certificates where applicable	Architect

Please refer to the manual for full evidence requirements, as this is a summary only

6. INDIVIDUAL CREDITS

(Criteria for guidance only. Please refer to the BREEAM Refurbishment Domestic buildings 2014 Technical Manual for full credit compliance requirements and schedule of evidence required)

Pre-Assessment Estimator

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BREEAM UK Domestic Refurbishment 2014 Pre-Assessment Estimator v0.1

This assessment and Indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a dwelling's potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.

Minimum Standards		Pass	Good	Very Good	Excellent	Outstanding
Ene 02		✓	✓	✓	✓	✗
Wat 01		✓	✓	✓	✓	✗
Hea 05		✓	✓	✓	✓	✓
Hea 06		✓	✓	✓	✓	✓
Pol 03		✓	✓	✓	✗	✗
Mat 02		✓	✓	✓	✓	✓

Building name: _____
 Indicative building score (%): **59.62%**
 Indicative BREEAM rating: **BREEAM Very Good**

Management Health & Wellbeing Energy Water Materials Waste Pollution

INNOVATION Section Weighting: 10% Indicative Section Score: 0.00%

Comments: _____

MANAGEMENT Section Weighting: 12% Indicative Section Score: 6.55%

Man 01 - Home Users Guide

No. of BREEAM credits available	3	Available contribution to overall score	3.27%
No. of BREEAM innovation credits	0	Minimum Standards applicable:	No

Assessment Criteria
 Where a Home Users Guide be provided to all dwellings, covering all issues set out in the 'Users Guide Contents list', three credits may be awarded → **Indicative Credits: 3**

Comments: _____

Man 02 - Responsible Construction Practices

No. of BREEAM credits available	2	Available contribution to overall score:	2.18%
No. of BREEAM innovation credits	1	Minimum Standards	No

Assessment Criteria
 Where a compliant considerate construction scheme will be used, credits are awarded depending on the score achieved as outlined below:

Large Scale - project with more than 5 units

	One Credit	Two Credits
Considerate Constructors Scheme	Score of 25-34 with a score of 5 in each section	Score of 35-39 with a score of 7 in each section
Alternative Compliant Scheme	Compliance	Beyond Compliance

Small Scale - project with 5 units or fewer

	One Credit	Two Credits
Considerate Constructors Scheme	Score of 25-34 with a score of 5 in each section	Score of 35-39 with a score of 7 in each section
Alternative Compliant Scheme	Compliance	Beyond Compliance
Checklist A-3	50% of the optional items	80% of the optional items

Exemplary Credit

	One Credit	Two Credits
Considerate Constructors Scheme	Score of 40 or more with a score of 7 in each section	
Alternative Compliant Scheme	Exemplary Level Compliance	
Checklist A-3*	All Items (Optional & Mandatory)	

* Small Scale Project Only

Indicative Innovation Credits Achieved: **0**

Comments: _____

Man 03 - Construction Site Impacts

No. of BREEAM credits available	1	Available contribution to overall score	1.09%
No. of BREEAM innovation credits	0	Minimum Standards applicable:	No

Assessment Criteria
 Where evidence demonstrate that site impacts will be monitored, as detailed below:

One Credit

	One Credit
Large Scale	Where there is evidence to demonstrate that 2 or more of the sections in Checklist A-4 are completed
Small Scale	Where there is evidence to demonstrate that 2 or more of the sections in Checklist A-5 are completed

Sections of Checklist

Large Scale - Checklist A-4	Small Scale - Checklist A-5
Monitor, report and set targets for CO2 production of energy use arising from site activities	Set objectives for reducing CO2 production from energy use arising from site activities
Monitor, report and set targets for water consumption arising from site activities	Set objectives for reducing water use arising from site activities
A main contractor with an environmental materials policy	Main contractor environmental materials statement
A main contractor that operates an Environmental Management System	80% of site timber is reclaimed, re-used or responsibly sourced

Same definition of small and large scale as in Man 02

Comments: _____

Pre-Assessment Estimator

Man 04: Security			
No. of BREEAM credits available	2	Available contribution to overall score:	2.18%
No. of BREEAM innovation credits	0	Minimum Standards applicable:	No
Assessment Criteria			Indicative Credits
Where the following requirements will be met:			1
One Credit Secure windows and doors	External doors and accessible windows meet minimum standards and appropriately certified		
Two Credits Secured by design	Principles and guidance of Secured by Design Section 2 are complied with		
	A suitably qualified security consultant is consulted at the design stage and their recommendations are incorporated into the refurbishment		
Comments			
Man 05: Protection and Enhancement of Ecological Features			
No. of BREEAM credits available	1	Available contribution to overall score:	1.09%
No. of BREEAM innovation credits	1	Minimum Standards applicable:	No
Assessment Criteria			Indicative Credits
Where the following requirements will be met:			1
One Credit Protecting Ecological Features	Site survey carried out to determine presence of ecological features		
	Statutory Nature Conservation Organisation notified of protected species		
	Features of ecological value protected during refurbishment works		
Exemplary Credit Ecological enhancement	A suitably qualified ecologist recommends features to enhance ecology of the site		Indicative Innovation Credits Achieved
	adopts all general ecological recommendations		
	adopts 30% of additional recommendations		
Comments			
Man 06: Project Management			
No. of BREEAM credits available	2	Available contribution to overall score:	2.18%
No. of BREEAM innovation credits	2	Minimum Standards applicable:	No
Assessment Criteria			Indicative Credits
Where the following requirements will be met:			1
One Credit Project Roles and Responsibilities	Where all of the project team are involved in the project decision making		
	Small Scale - the project manager assigns individual and shared responsibilities amongst the project team including all trades on site		
	Large Scale - the project manager assigns individual and shared responsibilities across the following key design and refurbishment stages:		
	i. Planning and Building control notification ii. Design iii. Refurbishment iv. Commissioning and handover v. Occupation		
Small Scale projects: five units or fewer and less than £100k		Large Scale projects: more than five units and more than £100k	
One Credit Handover and Aftercare	Handover meeting arranged		
	2 or more of the following committed to: - A site inspection within 3 months of occupation - Conduct post occupancy interviews with building occupants or a survey via phone or posted information within 3 months of occupation - Longer term after care e.g. a helpline, nominated individual or other appropriate system to support building users for at least the first 12 months of occupation		
Exemplary Credits			Indicative Innovation Credits Achieved
One Exemplary Credit Early Design Input	Where A BREEAM Accredited Professional has been appointed to oversee key stages within the project.		
	OR Where a BREEAM Domestic Refurbishment Assessor has been appointed at an early stage of the project, prior to the production of a refurbishment specification		
One Exemplary Credit Thermographic Surveying and Airtightness Testing	Where Thermographic surveying and Airtightness testing have been carried out at both pre and post refurbishment stages		
	Where an improved air tightness target has been set at design stage and testing demonstrates that this has been achieved post refurbishment		
Comments			

HEALTH & WELLBEING		Section Weighting: 1.7%		Indicative Section Score 9.92%	
Hea 01 Daylighting					
No. of BREEAM credits available	2	Available contribution to overall score	2.83%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
Assessment Criteria				Indicative Credits	
Where the refurbishment results in a neutral impact on daylighting or where minimum daylighting standards are met, up to two credits may be awarded as follows:				1	
For Existing Dwellings and Change of Use Projects					
First Credit Maintaining Good Daylighting		The refurbishment results in a neutral impact on the dwellings daylighting levels in the kitchen, living room, dining room and study			
Where the property is being extended					
First Credit Maintaining Good Daylighting		New spaces achieve minimum daylighting levels The extension does not significantly reduce daylighting levels in the kitchen, living room, dining room or study of neighbouring properties			
For All Properties					
Second Credit Minimum Daylighting		The dwelling achieves minimum daylighting levels in the kitchen, living room, dining room and study			
Comments					
Hea 02 Sound Insulation					
No. of BREEAM credits available	4	Available contribution to overall score	5.67%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
Assessment Criteria				Indicative Credits	
To ensure the provision of acceptable sound insulation standards and so minimise the likelihood of noise complaints.				2	
Properties where sound testing has been carried out:					
Up to Four Credits		Four credits awarded according to the improvement over building regulations. See table in additional information in Technical Manual			
Properties where sound testing is not feasible and not required by the appointed Building Control body					
Two Credits		Where existing separating walls and floors are designed to meet the requirements of Building Regulations with compliant construction details			
Up to Four Credits		Where a Suitably Qualified Acoustician (SQA) provides recommendations for the specification of all existing separating walls and floors SQA confirms in their professional opinion that they have the potential to meet or exceed the sound insulation credit requirements Where these recommendations are implemented See table in additional information in Technical Manual			
Historic Buildings					
Up to Four Credits		Where the dwelling is a Historic Building and sound testing results demonstrate existing separating walls and floor meet the Historic Building credit requirements See table in additional information in Technical Manual Where sound testing is not feasible and not required by the appointed Building Control body meeting criteria 2 and 3 using Table 12 Properties where sound testing has been carried out, credits awarded according to the improvement over building regulations. See table in additional information in Technical Manual Where the dwelling is a detached property Where the dwelling is a property with separating walls or floors only between non habitable rooms OR Testing not required by building control body			
Detached Properties					
Four Credits		By Default			
Properties with separating walls or floors only between non habitable rooms OR Testing not required by building control body					
Four Credits		By Default			
Comments					
Hea 03 Volatile Organic Compounds					
No. of BREEAM credits available	1	Available contribution to overall score	1.42%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
Assessment Criteria				Indicative Credits	
Where the refurbishment avoids the use of VOCs with new products meeting the following requirements:				0	
One Credit Avoiding the use of VOCs		Where all decorative paints and varnishes used in the refurbishment have met the requirement listed in table 5.4 in the Technical Manual Where at least five of the eight remaining product categories listed in table 5.4 have met the testing requirements and emission levels for Volatile Organic Compound (VOC) emissions against the relevant standards identified within table 5.4 in the Technical Manual Where five or less products are specified within the refurbishment, all must meet the requirements in order to achieve this credit.			
Comments					

Pre-Assessment Estimator

Hea 04 Inclusive Design																													
No. of BREEAM credits available	2	Available contribution to overall score	2.83%																										
No. of BREEAM innovation credits	1	Minimum Standards applicable	No																										
Assessment Criteria			Indicative Credits																										
Where an access statement has been carried out using Checklist A-8 of the Technical Manual to optimise the accessibility of the home as follows:			1																										
<table border="1"> <thead> <tr> <th colspan="2">Checklist A-8 of the Technical Manual</th> </tr> <tr> <th>Section 1</th> <th>Section 2</th> </tr> </thead> <tbody> <tr> <td>One Credit Minimum Accessibility</td> <td>Completed with Evidence</td> </tr> <tr> <td>Two Credits Advanced Accessibility</td> <td>Completed with Evidence</td> </tr> </tbody> </table>				Checklist A-8 of the Technical Manual		Section 1	Section 2	One Credit Minimum Accessibility	Completed with Evidence	Two Credits Advanced Accessibility	Completed with Evidence																		
Checklist A-8 of the Technical Manual																													
Section 1	Section 2																												
One Credit Minimum Accessibility	Completed with Evidence																												
Two Credits Advanced Accessibility	Completed with Evidence																												
Exemplary Performance			Indicative Innovation Credits Achieved																										
One Credit	Where an access expert suitably qualified member of the design team has completed sections 1, 2 and 3 of Checklist A-8, access statement template with evidence provided of the measures implemented in the refurbishment		0																										
Comments																													
Hea 05 Ventilation																													
No. of BREEAM credits available	2	Available contribution to overall score	2.83%																										
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes																										
Assessment Criteria			Indicative Credits																										
Where the dwelling meets the following ventilation requirements:			2																										
One Credit Minimum Ventilation Requirements	A minimum level of background ventilation is provided (with trickle ventilators or other means of ventilation) for all habitable rooms, kitchens, utility rooms and bathrooms compliant with section 7, Building Regulations Approved Document Part F, 2010 A minimum level of extract ventilation is provided in all wet rooms (e.g. kitchen, utility and bath-rooms), compliant with section 5, Building Regulations Approved Document Part F 2010. A minimum level of purge ventilation is provided in all habitable rooms and wet rooms, compliant with section 7, Building Regulations Approved Document Part F, 2010. It is an historic building and meets historic building requirements in CN4 of the technical manual																												
Two Credits Advanced Requirements	Ventilation is provided for the dwelling that meets the requirements of Section 5 of Building Regulations Part F in full Where the building is a historic building and meets the requirements for Historic Buildings in compliance note 4 of the technical manual																												
Comments																													
Hea 06 Safety																													
No. of BREEAM credits available	1	Available contribution to overall score	1.42%																										
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes																										
Assessment Criteria			Indicative Credits																										
Where a fire and carbon monoxide (CO) detection and alarm system is specified as follows:			1																										
One Credit Fire and Carbon Monoxide (CO) Detection and Alarm Systems	Where a compliant fire detection and fire alarm system is provided Carbon Monoxide detector installed if dwelling is supplied with mains gas or other fossil fuel Mains supplied fire detection and alarm system if project involves re-wiring* Battery operated fire detection and alarm system if no re-wiring* is to take place																												
* see CN9 in Hea 06 for the definition of re-wiring																													
Comments																													
ENERGY Section Weighting: 43% Indicative Section Score 28.91%																													
Ene 01 Improvement in Energy Efficiency Rating																													
No. of BREEAM credits available	6	Available contribution to overall score	8.90%																										
No. of BREEAM innovation credits	0	Minimum Standards applicable	No																										
Assessment Criteria			Indicative Credits																										
Where the following targets are met for the improvement in Energy Efficiency Rating achieved as a result of refurbishment:			3																										
<table border="1"> <thead> <tr> <th>Improvement in EER</th> <th>Credits</th> </tr> </thead> <tbody> <tr><td>≥ 5</td><td>0.5</td></tr> <tr><td>≥ 9</td><td>1</td></tr> <tr><td>≥ 13</td><td>1.5</td></tr> <tr><td>≥ 17</td><td>2</td></tr> <tr><td>≥ 21</td><td>2.5</td></tr> <tr><td>≥ 26</td><td>3</td></tr> <tr><td>≥ 31</td><td>3.5</td></tr> <tr><td>≥ 36</td><td>4</td></tr> <tr><td>≥ 42</td><td>4.5</td></tr> <tr><td>≥ 48</td><td>5</td></tr> <tr><td>≥ 54</td><td>5.5</td></tr> <tr><td>≥ 60</td><td>6</td></tr> </tbody> </table>			Improvement in EER	Credits	≥ 5	0.5	≥ 9	1	≥ 13	1.5	≥ 17	2	≥ 21	2.5	≥ 26	3	≥ 31	3.5	≥ 36	4	≥ 42	4.5	≥ 48	5	≥ 54	5.5	≥ 60	6	
Improvement in EER	Credits																												
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≥ 17	2																												
≥ 21	2.5																												
≥ 26	3																												
≥ 31	3.5																												
≥ 36	4																												
≥ 42	4.5																												
≥ 48	5																												
≥ 54	5.5																												
≥ 60	6																												
Comments																													

No. of BREEAM credits available	4	Available contribution to overall score	5.93%
No. of BREEAM innovation credits	2	Minimum Standards applicable	Yes
Assessment Criteria			Indicative Credits
Where the following Energy Efficiency Rating benchmarks will be met as a result of refurbishment:			2.5
EER post refurbishment	Credits	Minimum requirements	
≥50	0.5	'Pass' level EER of 50	
≥55	1	'Good' level EER of 58	
≥60	1.5		
≥65	2	'Very Good level' EER of 65	
≥70	2.5	'Excellent' level EER of 70	
≥75	3		
≥80	3.5	'Outstanding' level EER of 81	
≥85	4		
Exemplary			Indicative Innovation Credits Achieved
≥90			0
≥100			2
Comments			
Ene 03 Primary energy demand			
No. of BREEAM credits available	7	Available contribution to overall score	10.38%
No. of BREEAM innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where the following Primary Energy Demand benchmarks will be met as a result of refurbishment:			6
Primary Energy Demand Post Refurbishment	Credits		
≤ 400	0.5		
≤ 370	1		
≤ 340	1.5		
≤ 320	2		
≤ 300	2.5		
≤ 280	3		
≤ 260	3.5		
≤ 240	4		
≤ 220	4.5		
≤ 200	5		
≤ 180	5.5		
≤ 160	6		
≤ 140	6.5		
≤ 120	7		
Comments			
Ene 04 Renewable Technologies			
No. of BREEAM credits available	2	Available contribution to overall score	2.97%
No. of BREEAM innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where the dwelling will meet the following % contribution from renewables and primary energy demand targets as a result of refurbishment			0
Dwelling Type	Primary Energy Demand	Percentage from Renewables	
		1 Credit	2 Credits
Detached	≤ 250 kWh/m ² /year	≥10%	≥20%
Semi-Detached		≥10%	≥20%
Bungalow		≥10%	≥20%
End of Terrace		≥10%	≥20%
Mid Terrace	≤ 220 kWh/m ² /year	≥10%	≥20%
Low Rise Flat		≥10%	≥20%
Mid Rise Flat		≥10%	≥15%
High Rise Flat		≥10%	≥15%
Comments			
Ene 05 Energy Labelled White Goods			
No. of BREEAM credits available	2	Available contribution to overall score	2.97%
No. of BREEAM innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where Energy Efficiency White goods are to be provided as follows:			2
First Credit			
Appliance	Appliance provided	Appliance not to be provided	
Fridges, Freezers and Fridge-Freezers	A+ Rating under EU Energy Efficiency Labelling Scheme	EU Energy Efficiency Labelling Scheme Information Leaflet provided to all dwellings	
Second Credit			
Appliance	Appliance provided	Appliance not to be provided	
Washing Machines and Dishwashers	Washing Machine A++ under EU Energy Efficiency Labelling Scheme AND Dishwasher A+ under EU Energy Efficiency Labelling Scheme	Second credit not achieved	
Washer-Dryers and Tumble Dryers	Appliances specified with A Rating under EU Energy Efficiency Labelling Scheme	EU Energy Efficiency Labelling Scheme Information Leaflet provided to all dwellings	
Comments			

Pre-Assessment Estimator

Ene 06 Drying Space																	
No. of BREEAM credits available	1	Available contribution to overall score	1.48%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria		Indicative Credits															
Where adequate, secure internal or external space with posts and footings or fixings is provided with the following:		0															
<table border="1"> <tr> <th colspan="2">1 Credit</th> </tr> <tr> <th>Number of bedrooms</th> <th>Drying line required</th> </tr> <tr> <td>1-2</td> <td>4m+</td> </tr> <tr> <td>3+</td> <td>6m+</td> </tr> </table>		1 Credit		Number of bedrooms	Drying line required	1-2	4m+	3+	6m+								
1 Credit																	
Number of bedrooms	Drying line required																
1-2	4m+																
3+	6m+																
Comments																	
Ene 07 Lighting																	
No. of BREEAM credits available	2	Available contribution to overall score	2.97%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria		Indicative Credits															
Where energy efficient internal and external lighting is provided as follows:		2															
<table border="1"> <tr> <td>External Lighting - 1</td> </tr> <tr> <td>Energy Efficient Space Lighting of more than 45 lumens per circuit watt and Energy Efficient Security Lighting OR</td> </tr> <tr> <td>Where Energy Efficient Space Lighting is provided ONLY</td> </tr> <tr> <td>Internal Lighting - 1</td> </tr> <tr> <td>Maximum average wattage across the total floor area of the dwelling of 9 watts/m2</td> </tr> </table>		External Lighting - 1	Energy Efficient Space Lighting of more than 45 lumens per circuit watt and Energy Efficient Security Lighting OR	Where Energy Efficient Space Lighting is provided ONLY	Internal Lighting - 1	Maximum average wattage across the total floor area of the dwelling of 9 watts/m2											
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Internal Lighting - 1																	
Maximum average wattage across the total floor area of the dwelling of 9 watts/m2																	
Comments																	
Ene 08 Display Energy Devices																	
No. of BREEAM credits available	2	Available contribution to overall score	2.97%														
No. of BREEAM innovation credits	1	Minimum Standards applicable	No														
Assessment Criteria		Indicative Credits															
Where consumption data is displayed to occupants by a compliant energy display device		2															
<table border="1"> <tr> <th rowspan="2">Electricity usage data displayed</th> <th colspan="2">Primary Heating Fuel</th> </tr> <tr> <th>Electricity</th> <th>Other</th> </tr> <tr> <td>Electricity usage data displayed</td> <td>2 credits awarded</td> <td>1 credit awarded</td> </tr> <tr> <td>Primary Heating Fuel usage data displayed</td> <td>N/A</td> <td>1 credit awarded</td> </tr> <tr> <td>Electricity & Primary Heating Fuel usage displayed</td> <td>N/A</td> <td>2 credits awarded</td> </tr> </table>		Electricity usage data displayed	Primary Heating Fuel		Electricity	Other	Electricity usage data displayed	2 credits awarded	1 credit awarded	Primary Heating Fuel usage data displayed	N/A	1 credit awarded	Electricity & Primary Heating Fuel usage displayed	N/A	2 credits awarded		
Electricity usage data displayed	Primary Heating Fuel																
	Electricity	Other															
Electricity usage data displayed	2 credits awarded	1 credit awarded															
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Exemplary Credits		Indicative Innovation Credits Achieved															
<table border="1"> <tr> <th>One credit</th> <th>Where the first two credits are achieved</th> </tr> <tr> <td>Recording consumption data</td> <td>Where any compliant Energy Display Device is capable of recording consumption data</td> </tr> </table>		One credit	Where the first two credits are achieved	Recording consumption data	Where any compliant Energy Display Device is capable of recording consumption data	0											
One credit	Where the first two credits are achieved																
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Comments																	
Ene 09 Cycle Storage																	
No. of BREEAM credits available	2	Available contribution to overall score	2.97%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria		Indicative Credits															
Where individual or communal compliant cycle storage is provided as follows:		1															
<table border="1"> <tr> <th>Dwelling Size</th> <th>One Credit</th> <th>Two Credits</th> </tr> <tr> <td>Studios/ 1 bedroom</td> <td>1 per two dwellings</td> <td>1 per dwelling</td> </tr> <tr> <td>2-3 bedrooms</td> <td>1 per dwelling</td> <td>2 per dwelling</td> </tr> <tr> <td>4 bedrooms</td> <td>2 per dwelling</td> <td>4 per dwelling</td> </tr> </table>		Dwelling Size	One Credit	Two Credits	Studios/ 1 bedroom	1 per two dwellings	1 per dwelling	2-3 bedrooms	1 per dwelling	2 per dwelling	4 bedrooms	2 per dwelling	4 per dwelling				
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4 bedrooms	2 per dwelling	4 per dwelling															
Comments																	
Ene 10 Home Office																	
No. of BREEAM credits available	1	Available contribution to overall score	1.48%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria		Indicative Credits															
Where sufficient space and services will be provided to allow occupants to set up a home office in a suitable room with adequate ventilation		1															
Comments																	

WATER		Section Weighting: 11%		Indicative Section Score 8.80%	
Wat 01 Internal Water Use					
No. of BREEAM credits available	3	Available contribution to overall score		6.60%	
No. of BREEAM innovation credits	1	Minimum Standards applicable		Yes	
Assessment Criteria					Indicative Credits
Where the dwellings water consumption meets the following consumption benchmarks, or where terminal fittings meet the following water consumption standards:					2
Calculated Water Consumption (litres/person/day)	Equivalent terminal fitting standards	Minimum Standard	Credits		
>150	Typical baseline performance	N/A	0		
from 140 to ≤ 150	All showers specified to 'Good' OR All taps and WC's to 'Good' OR Kitchen fittings specified to 'Excellent'	N/A	0.5		
from 129 to < 140	All showers specified to 'Excellent' OR All showers and bathroom taps to 'Good'	BREEAM Very Good	1		
from 118 to < 129	All bathroom and WC room fittings specified to 'Good' OR All bathroom fittings specified to 'Excellent'	N/A	1.5		
from 107 to < 118	All Bathroom and WC room fittings specified to 'Excellent' OR All Bathroom fittings Specified to 'Excellent' and WC room fitting specified to 'Good' OR All Bathroom fittings, kitchen and utility sittings specified to 'Good'	BREEAM Excellent	2		
from 96 to < 107	All kitchen, bathroom, utility room and WC room fittings specified to 'Good' OR All bathrooms, kitchens and utility rooms specified to 'Excellent'	N/A	2.5		
< 96	All bathroom fittings specified to 'Excellent' and WC room, kitchen and utility room fittings specified to 'Good'	BREEAM Outstanding	3		
NOTE: 'Good' fittings are equivalent to good practice fittings with "Excellent" fittings equivalent to best practice fittings (see the technical manual for full details).					
		Exemplary Credit	If the water consumption is less than 80l/person/day	Indicative Innovation Credits Achieved	
				0	
Comments					
Wat 02 External Water Use					
No. of BREEAM credits available	1	Available contribution to overall score		2.20%	
No. of BREEAM innovation credits	0	Minimum Standards applicable		No	
Assessment Criteria					Indicative Credits
Where the following requirements will be met:					1
Requirements:					
One Credit		Where a compliant rainwater collection system for external/internal irrigation use has been provided to dwellings. OR Where dwellings have no individual or communal garden space.			
Comments					
Wat 03 Water Meter					
No. of BREEAM credits available	1	Available contribution to overall score		2.20%	
No. of BREEAM innovation credits	0	Minimum Standards applicable		No	
Assessment Criteria					Indicative Credits
Where an appropriate water meter for measuring usage of mains potable water meter has been provided to dwelling(s), one credit may be awarded					1
Comments					
MATERIALS		Section Weighting: 8%		Indicative Section Score 3.50%	
Mat 01 Environmental Impact of Materials					
No. of BREEAM credits available	25	Available contribution to overall score		4.16%	
No. of BREEAM innovation credits	0	Minimum Standards applicable		No	
Assessment Criteria					Indicative Credits
Up to 25 credits can be awarded, with credits calculated using the Mat 01 calculator tool. The table below shows the maximum number of credits available for each element:					10
Elements	Green Guide Rating credits available	Thermal performance credits available*			
Roof	5	3			
External walls	5	3.8			
Internal walls (including separating walls)	5	-			
Upper and Ground Floor	5	1.2			
Windows	5	2			
The full 25 credits represents all of the elements containing refurbished or existing materials that meet the Green Guide Rating of A+(6)					
GG Rating	Points for existing / refurbished elements	Points for new elements			
A+ (6)	5				
A+ (5)	4.6				
A+ (4)	4.2				
A+ (3)	3.8				
A+ (2)	3.4				
A+	3	3			
A	2	2			
B	1	1			
C	0.5	0.5			
D	0.25	0.25			
E	0	0			

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Mat 02 Responsible Sourcing of Materials																															
No. of BREEAM credits available	15	Available contribution to overall score	2.50%																												
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes																												
Assessment Criteria		Indicative Credits																													
Where new materials are responsibly sourced, up to 12 credits may be awarded where 80% of new materials for an element are responsibly sourced. The credits achieved are dependent on % of point achieved which is based upon the responsible sourcing tier level of each material sourced as detailed below:		7																													
Sustainable Procurement Plan (3 BREEAM credits) The principal contractor sources materials for the project in accordance with a documented sustainable procurement plan OR Where the principal contractor is a Small Company (up to 3 BREEAM credits) Checklist A-9 is filled in with supporting evidence		Will all new timber used in the project be sourced in accordance with the UK Government's Timber Procurement Yes																													
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Mat 03 Insulation																															
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No. of BREEAM innovation credits	0	Minimum Standards applicable	No																												
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Where any new insulation specified for use within external walls, ground floor, roof and buildings services meet the following requirements:		4																													
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WASTE Section Weighting: 3% Indicative Section Score 1.20%																															
Was 01 Household Waste																															
No. of BREEAM credits available	2	Available contribution to overall score	1.20%																												
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Assessment Criteria		Indicative Credits																													
Up to three credits are available depending on the site waste management plan to be implemented as follows		0																													
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Exemplary Credit	Where a compliant Level 2; Site Waste Management Plan (SWMP) is in place
	Non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the resource efficiency benchmark
	The percentage of non-hazardous construction waste and demolition waste generated by the project has been diverted from landfill and meets or exceeds the refurbishment & demolition waste diversion benchmarks
Projects over £300k	
First Credit Management Plan	Where a compliant Level 2; Site Waste Management Plan (SWMP) is in place
Second Credit Good Practice Waste Benchmarks	First credit achieved
	Non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the resource efficiency benchmark
	Amount of waste generated against £100,000 of project value is recorded in the SWMP
	Pre-refurbishment audit of the existing building is completed
Third Credit Best Practice Waste Benchmarks	If demolition is included as part of the refurbishment programme, then the audit should also cover demolition materials
	Where the first two credits have been achieved
Exemplary Credit	Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the refurbishment & demolition waste diversion benchmarks
	Where non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the <i>exemplary level resource efficiency benchmark</i>
Comments	

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POLLUTION		Section Weighting: 6%		Indicative Section Score 0.75%													
Pol 01 NOx Emissions																	
No. of BREEAM credits available	3	Available contribution to overall score	2.25%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria				Indicative Credits													
Credits are awarded on the basis of NOx emissions arising from the operation of space heating and hot water systems for each refurbished dwelling as follows:				1													
		<table border="1"> <thead> <tr> <th colspan="2">Dry NOx Emissions</th> </tr> </thead> <tbody> <tr> <td>One Credit</td> <td>≤100 mg/kWh (NOx class 4 boiler)</td> </tr> <tr> <td>Two Credits</td> <td>≤70 mg/kWh (NOx class 5 boiler)</td> </tr> <tr> <td>Three Credits</td> <td>≤40 mg/kWh</td> </tr> </tbody> </table>				Dry NOx Emissions		One Credit	≤100 mg/kWh (NOx class 4 boiler)	Two Credits	≤70 mg/kWh (NOx class 5 boiler)	Three Credits	≤40 mg/kWh				
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Pol 02 Surface Water Runoff																	
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No. of BREEAM innovation credits	1	Minimum Standards applicable	No														
Assessment Criteria				Indicative Credits													
Where impacts of the refurbishment on surface water runoff are neutralised or where runoff is reduced as a result of refurbishment, up to three credits can be awarded as follows:				0													
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Comments																	
Pol 03 Flooding																	
No. of BREEAM credits available	2	Available contribution to overall score	1.50%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes														
Assessment Criteria				Indicative Credits													
Where the dwelling is located in a low flood risk zone, or where in a medium to high flood risk zone and a flood resilience/resistance strategy has been implemented, up to two credits can be awarded as follows:				0													
Minimum Standards		A minimum of two credits must be achieved for this issue at the Excellent and Outstanding levels															
Option 1 - Low Flood Risk																	
Two Credits	Where a Flood Risk Assessment (FRA) has been carried out and the assessed dwellings are defined as having a low annual probability of flooding.																
Option 2 - Medium / High Flood Risk																	
Two Credits	Where a Flood Risk Assessment (FRA) has been carried out and the assessed dwellings are defined as having a medium or high annual probability of flooding. Two credits are awarded where as a result of the dwellings floor level or measures to keep water away the dwelling is defined as achieving avoidance from flooding by following Checklist A-10; Decision Strategy Flow Chart. Where avoidance is not possible, two credits are achieved where a full flood resilience/resistance strategy is implemented for the dwellings in accordance with recommendations made by a Suitably Qualified Building Professional																
Comments																	

BREEAM UK Domestic Refurbishment 2014 Pre-Assessment Estimator v0.1: Results Summary

BREEAM® UK

Building name	
Indicative Building Score	59.62%
Indicative Building Rating	BREEAM Very Good

This assessment and indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a dwelling's potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.

	Issue	Credits Available	Indicative Credits Achieved	Weighting	Section Score
Management	Man 01	3	3	12%	6.55%
	Man 02	2	0		
	Man 03	1	0		
	Man 04	2	1		
	Man 05	1	1		
	Man 06	2	1		

Health and Wellbeing	Hea 01	2	1	17%	9.92%
	Hea 02	4	2		
	Hea 03	1	0		
	Hea 04	2	1		
	Hea 05	2	2		
	Hea 06	1	1		

Energy	Ene 01	6	3	43%	28.91%
	Ene 02	4	2.5		
	Ene 03	7	6		
	Ene 04	2	0		
	Ene 05	2	2		
	Ene 06	1	0		
	Ene 07	2	2		
	Ene 08	2	2		
	Ene 09	2	1		
	Ene 10	1	1		

Water	Wat 01	3	2	11%	8.80%
	Wat 02	1	1		
	Wat 03	1	1		

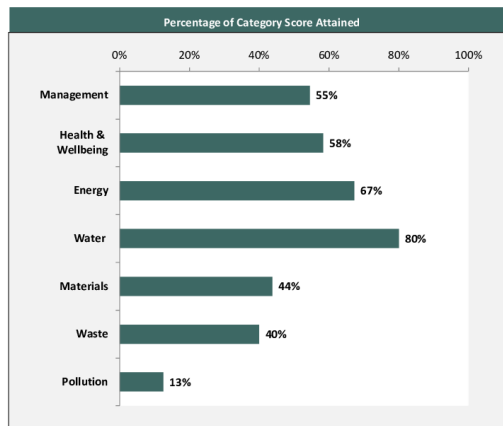
Materials	Mat 01	25	10	8%	3.50%
	Mat 02	15	7		
	Mat 03	8	4		

Waste	Was 01	2	2	3%	1.20%
	Was 02	3	0		

Pollution	Pol 01	3	1	6%	0.75%
	Pol 02	3	0		
	Pol 02	2	0		

Innovation	10	0	N/A		0.00%
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	Minimum Standards				
	Pass	Good	Very Good	Excellent	Outstanding
Ene 02	✓	✓	✓	✓	✗
Wat 01	✓	✓	✓	✓	✗
Hea 05	✓	✓	✓	✓	✓
Hea 06	✓	✓	✓	✓	✓
Pol 03	✓	✓	✓	✗	✗
Mat 02	✓	✓	✓	✓	✓



This report presents a preliminary assessment, which precedes both a formal design stage (DS) assessment and post-refurbishment stage (PRS) assessment. The aim of this report is to demonstrate the potential BREEAM rating of the development at the design stage, and to define the criteria required to achieve a BREEAM rating. It is assumed that all necessary evidence for each credit will be provided for auditing and that these credits will be successfully integrated into both the design and construction phases of the proposed development.

Please note that this project has not been formally registered with BRE Global, the organisation responsible for BREEAM.