

No.1 Station Road, Reading

BREEAM New Construction 2014 Pre-Assessment

On behalf of **Station Road Dev Co Ltd**

Project Ref: 43102 | V2 | Date: October 2018



Document Control Sheet

Project Name: 29-35 Station Road
Project Ref: 43102 -2502
Report Title: BREEAM New Construction 2014 Pre-Assessment
Doc Ref: V2
Date: October 2018

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For and on behalf of Peter Brett Associates LLP				

Revision	Date	Description	Prepared	Reviewed	Approved
V1	12.10.18	Draft	JH	RK	JR
V2	25.10.18	Final	JH	RK	JR

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1 Introduction

1.1 Introduction

- 1.1.1 Peter Brett Associates LLP (PBA) has been appointed by Station Road Dev Co Ltd to provide BREEAM assessment services for the redevelopment of 29-35 Station Road, Reading. This report accompanies a Full Planning Application for: "Demolition of existing building and erection of replacement mixed use building comprised of hotel (Class C1), office (Class B1a) and flexible ground floor retail use (Classes A1, A2, A3, A4 and A5 use), with associated servicing from Garrard Street".

1.2 Policy Context

- 1.2.1 Reading Borough Council's (RBCs) adopted Core Strategy (2015) Policy CS1 requires Non-residential development to achieve a minimum of 50% BREEAM 'Excellent' rating and the remainder BREEAM 'Very Good'. The RBC Sustainable Design and Construction SPD (2011) clarifies that "as a minimum, where the above split is not appropriate for the development, [development should] achieve a BREEAM score of 62.5%".
- 1.2.2 A new emerging Local Plan (2018) is being developed, and Policy CC2 states "all major non-residential developments or conversions to residential are required to meet the most up-to-date BREEAM 'Excellent' standards, where possible". The Local Plan (2018) was submitted to the Secretary of State on Thursday 29th March 2018. However, this Plan has not yet been adopted. The existing Core Strategy (2015) is therefore the key policy document in relation to the proposed development.
- 1.2.3 In accordance RBC's Core Strategy (2015) Policy CS1, this document demonstrates the BREEAM rating which can be achieved for the above mentioned units, and outlines what commitments are required in order to target this level.

1.3 Targeted BREEAM Ratings

- 1.3.1 This pre-assessment represents the hotel, offices, and ground floor retail use within the proposed development. It has been carried out using the BREEAM New Construction 2014 Technical Guidance.
- 1.3.2 Based on the testing undertaken by PBA at the pre-assessment stage, the 50/50 Very Good/Excellent split is not appropriate for this flagship development due to the impact it would have on the occupation (economic sustainability) and use (social sustainability) of the development as a whole. Therefore, to provide maximum flexibility for a wide range on occupiers we consider that the 62.5% 'rule' contained within the SPD should be followed to secure maximum occupation of this flagship site.
- 1.3.3 The main reason for not seeking Excellent for 50% of the Proposed Development, and Very Good for the other 50% is because of the floor area split. As highlighted in Table 1.1 below the hotel constitutes almost 75% of the total area and this would be the only use class which would have to meet Excellent. Some of the credits needed to achieve BREEAM Excellent are not feasible or financially viable for the Proposed Development. For example, implementing rain-water harvesting for use in all toilets within the bedrooms to achieve additional water credits is not feasible. In addition, due to the high rise nature of the design of the building and associated materials including steel and concrete, the materials credits are hard to achieve. A large proportion of concrete and steel, which is required to achieve the structural design of the building, means that Mat 1, Mat 5, Mat 6, Wst 5 and Wst 6 are not easily targeted as the building materials cannot be easily altered whilst maintaining the structural integrity. Comments are also included in the pre-assessment summaries to explain why credits are not appropriate or achievable for the proposed development, and therefore why scores are not sought.

- 1.3.4 Therefore, based on the above, the 62.5% approach permitted within the Sustainable Design and Construction SPD (2011) has been used. As demonstrated in Table 1.1 below the scores for the office and retail unit are lower than that of the hotel as these units are assessed as 'shell and core' and 'shell only' which limits the credits available. When an area weighted average is used the development achieves over the 62.5% target. The Retail Unit has the lowest score due to the 'shell only' nature, however this space only constitutes 2.5% of the development quantum.
- 1.3.5 The targeted ratings for 29-35 Station Reading are set out in Table 1 below. Based on an area-weighted average this will achieve a BREEAM score of 62.5%.

Table 1.1: Targeted BREEAM Scores and Average Score for Proposed Development

Use Class	Floor Space (Gross Internal Area sqm) ¹	Targeted Score (%)	Area Weighting (%)	Component Score
Office	1,688	61.6%	24.3	15
Retail	309	56.5%	4.5	2.5
Hotel	4,942	63.7%	71.2	45.3
Total Average BREEAM Score:				62.9

¹ Not including ancillary floors- plant & storage

2 Overview of BREEAM

2.1 Introduction

- 2.1.1 BREEAM is an environmental assessment method for rating and certifying the performance of non-domestic buildings. BREEAM first came into use in 1990 and was solely for offices. Since then the scheme has been developed to encompass more building types and a wider range of environmental sustainability topics.
- 2.1.2 BREEAM assesses the performance of an individual non-domestic buildings against criteria grouped into the following eight categories (each category is made up of a number of subcategories):
- Management;
 - Health and Wellbeing;
 - Energy;
 - Water;
 - Materials;
 - Waste;
 - Land Use and Ecology; and
 - Pollution.
- 2.1.3 The formal BREEAM assessment comprises two stages: a Design Stage assessment and a Post Construction Stage assessment. An interim certificate is issued on completion of the Design Stage assessment and the final certificate is issued on completion of the Post Construction Stage assessment. This report forms part of the pre-assessment stage which will inform the design of the development post planning and the Design Stage assessment.

2.2 Mandatory Elements

- 2.2.1 Six out of the eight categories within the BREEAM have mandatory minimum performance standards for certain subcategories. These are: Management, Energy, Water, Materials, Waste and Land Use and Ecology.
- 2.2.2 The Materials categories contains mandatory requirements which must be achieved in order to attain any BREEAM rating. Energy, Water and Land Use and Ecology have mandatory minimum standards applicable to BREEAM Very Good.
- 2.2.3 The development must meet all of the mandatory elements relevant to Very Good otherwise no rating will be achieved.

2.3 Tradable Credits

- 2.3.1 Credits are awarded to individual subcategories within each of the eight categories listed in paragraph 2.1.2. Credits in each category are given a different weighting which is applied to convert the credits into percentage points. The category which has the highest weighting when assessing a shell and core building is Energy, which in total is worth 15% of the whole assessment. The weightings of each category are shown in Table 2.1.

Table 2.1: Weighting factors of credits

Category	Weighted value of category (%)
Management	11
Health and Wellbeing	10.5
Energy	15
Transport	10
Water	7.5
Materials	14.5
Waste	9.5
Land Use and Ecology	11
Pollution	11

2.3.2 However, the number of credits in each category varies depending on the scope of the BREEAM assessment, therefore the percentage contribution to the overall score from each credit may not be in line with the overall weight value of the category e.g. each credit within the Water category is worth 0.9375% (with the total category only worth 7.5) compared to the Energy category where each credit is worth 0.71% (but the category is worth 15%).

2.3.3 These percentage points are then totaled to determine the BREEAM Rating (see Table 2.2).

Table 2.2: Relationship between total percentage point scores and BREEAM Level

BREEAM Rating	Minimum % Required
Outstanding	>85
Excellent	>70
Very Good	>55
Good	>45
Pass	>30
Unclassified	<30

2.4 Assessment and Certification

2.4.1 The environmental performance of a development is assessed in two parts. The first is the Design Stage assessment, which is carried out at the detailed design stage of the development in the period leading up to the issue of the tender documents. Once this assessment is carried out an interim certificate detailing the BREEAM Rating achieved at design stage is issued. Following completion of the Design Stage assessment, a Post Construction Stage assessment is carried out to confirm the unit has been built to the specification detailed in the Design Stage assessment. Once confirmed, and variances documented, the relevant final certificate can be issued.

3 Pre-Assessment

- 3.1.1 The following three pre-assessments have been carried out using information available at this stage of design. The pre-assessments should be reviewed as the development progresses through the detailed design and construction phases to ensure that it is still accurate.
- 3.1.2 This pre-assessment represents the hotel, offices, and ground floor retail use within the proposed development. It has been carried out using the BREEAM New Construction 2014 Technical Guidance.
- 3.1.3 The BREEAM New Construction 2014 Technical Guidance should be consulted by the appropriate design team member for each relevant category to ensure that the requirements are fulfilled.

BREEAM Scheme: New Construction 2014
 Building Name: 29-35 Station Road
 Registration No.: BREEAM-0073-4285
 Assessor: Richard Knight



Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Management					
Man 1	Project Brief and Design	To recognise and encourage an integrated design process that optimises building performance.	4	2	Stakeholder Consultation between the project delivery team and key third party stakeholders is taking place. Minutes and actions from these meetings are being collated and the outcomes of the consultations will be used to inform the design.
Man 2	Lifecycle cost and service life planning	To deliver whole life value from investment and promote economic sustainability by recognising and encouraging the use and sharing of life cycle costing and service life planning to improve design, specification and through-life maintenance and operation.	4	1	The design team have confirmed that they would be willing to report on the Capital Cost of the project.
Man 3	Responsible Construction Practices	To recognise and encourage construction-sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	6	5	The Principal Contractor will be required to: - Procure all timber from legal sources - Operate an Environmental Management Plan - Register the site with the Considerate Constructors Scheme and achieve a score of at least 35 with no less than 7 in each category - Monitor utility consumption during construction; and - Monitor construction transport
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	4	3	PBA M&E have confirmed that they will include commissioning requirements within their performance specification. The Principal Contractor will then be required to: - create a commissioning schedule and assign responsibilities to appropriate individuals; - Commission building services; and - Provide a Building User Guide
Man 5	Aftercare	To provide post-handover aftercare to the building owner/occupants during the first year of occupation to ensure the building operates and adapts, where relevant, in accordance with the design intent and operational demands.	3	2	PBA M&E have confirmed that seasonal commissioning requirements will be incorporated within their performance specification, drawings and schematics. The Principal Contractor will be required to implement these seasonal commissioning requirements. The design team have confirmed that they would be willing to undertake a Post Occupancy Evaluation (using a soft landings approach) and will facilitate the provision of appropriate aftercare support.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Health & Wellbeing					
Hea 1	Visual Comfort	To ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	4	2	PBA M&E have confirmed that the internal and external lighting levels, zones and controls will be designed to meet CIBSE guidelines.
Hea 2	Indoor air quality	To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.	5	1	PBA M&E have provided a ventilation and extraction statement which is in line with the requirements of the BREEAM Indoor Air Quality Plan.
Hea 4	Thermal comfort	To ensure that appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants within the building.	3	3	PBA M&E have established that the hotel will not overheat in accordance with Building Regulations. Additional iterations will be run as the design develops.
Hea 5	Acoustic Performance	To ensure the building's acoustic performance including sound insulation meet the appropriate standards for its purpose.	4	3	An acoustic report has been prepared by KP Acoustics and submitted with this application. Once the operator is known the full requirements of BREEAM will be discussed and implemented where appropriate.
Hea 6	Safety and security	To recognise and encourage effective measures that promote safe and secure use and access to and from the building.	2	0	Not sought- it was not necessary for a security consultant to be involved with the project.
Energy					
Ene 1	Reduction of CO2 Emissions	To recognise and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO2 emissions.	12	8	PBA M&E have prepared a BRUKL to support the planning application, when the figures entered from this report are used within the BREEAM calculation it shows 8 credits will be achieved.
Ene 2	Energy Monitoring	To recognise and encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption.	1	1	PBA M&E have confirmed that energy sub-metering of major energy consuming systems and for high energy load areas can be provided
Ene 3	External Lighting	To recognise and encourage the specification of energy efficient light fittings for external areas of the development.	1	1	PBA M&E have confirmed that the external lighting specification can include energy efficient lighting which is controlled for the presence of daylight so as to prevent unwanted usage.
Ene 4	Low zero carbon technologies	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	3	0	Not sought- renewable technologies are not suitable to fit in with the development design - appraisal undertaken in Energy Strategy Report- e.g. no available roof area for PV.
Ene 6	Energy efficient transportation systems	To recognise and encourage the specification of energy efficient transportation systems.	3	3	At this stage in the design, the exact specification of the lift is not known. There is nothing to preclude the specification of a lift with energy efficient features at the appropriate stage of design.
Ene 8	Energy efficient equipment	To recognise and encourage procurement of energy efficient equipment to ensure optimum performance and energy savings in operation.	2	0	Not sought- due to the nature of the hotel development, the amount of small power equipment e.g. lamps, tvs, hair dryers, kettles, etc. is large and at this stage it was felt that requiring the incoming tenant to purchase specific equipment to meet BREEAM would deter occupiers. Once a hotel operator is known this credit can be re-assessed.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Transport					
Tra 1	Public transport Accessibility	To recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.	5	5	The public transport Accessibility Index (AI) of the site has been calculated as 24.39 which allows 5 credits to be achieved.
Tra 2	Proximity to amenities	To encourage and reward a building location that facilitates easy access to local services and so reduces the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion.	1	1	There is access to cash machines at RBS to the south of the site (approximately 20 m away), a range food outlets opposite the site on Station Road, and at the railway station (150 m from the site).
Tra 3	Cyclist Facilities	To encourage building users to cycle, so promoting exercise and helping reduce congestion and emissions, by ensuring adequate provision of cyclist facilities.	2	1	Broadway Malyan have confirmed that cycle spaces will be provided. As confirmed in the Travel Plan lockers, showers and changing facilities will be put in place for staff walking or cycling to work.
Tra 4	Maximum Car Parking Capacity	To encourage the use of alternative means of transport other than the private car to and from the building, thereby helping to reduce transport-related emissions and traffic congestion associated with the building's operation.	2	2	No car parking will be provided on site. This is confirmed in the layout plans.
Tra 5	Travel plan	To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of reliance on forms of travel that have the highest environmental impact.	1	1	PBA Transport have prepared a Travel Plan as part of the planning application.
Water					
Wat 1	Water Consumption	To reduce the consumption of potable water for sanitary use in new buildings from all sources through the use of water efficient components and water recycling systems.	5	3	Low water consuming sanitary ware that provides a 40% reduction over a BRE baseline can be provided. This will typically include the installation of dual flush WC, low capacity urinals and low flow showers and taps.
Wat 2	Water monitoring	To ensure water consumption can be monitored and managed, and therefore encourage reductions.	1	1	PBA M&E have confirmed that water meters with a pulsed output are to be installed on the incoming main supply with additional meters provided for areas of the building which use more than 10% of the total (typically kitchen and toilet areas).
Wat 3	Major leak detection and prevention	To reduce the impact of water leaks that may otherwise go undetected.	2	2	PBA M&E have confirmed that a leak detection can be installed which is capable of detecting water leaks occurring between the building and boundary and also within the building itself. Furthermore they have also confirmed that solenoid valves to prevent unwanted water usage can be installed within the toilet areas.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Materials					
Mat 1	Life cycle impacts	To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.	6	3	The materials which are to be used within the project will be highly rated within the Green Guide to Specification.
Mat 2	Hard landscaping and boundary protection	To recognise and encourage the specification of materials for boundary protection and external hard surfaces that have a low environmental impact, taking into account of the full life cycle of materials used.	1	0	Not sought-in order to target this credit recycled aggregates would need to be used under hardstanding areas within the development. This is likely to lead to a serious restriction on the supplies of ready mix concrete and macadam and would add substantial cost the project.
Mat 3	Responsible sourcing	To recognise and encourage the specification and procurement of responsibly sourced materials for key building elements.	4	3	The Principal Contractor will be required to: - ensure all timber is legally sourced; - have a Sustainable Procurement Plan; and - source materials from companies with 3rd party environmental certification such as ISO14001 or BES6001
Mat 4	Insulation	To recognise and encourage the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties	1	1	The Principal Contractor will be required to: - source insulation materials from companies with 3rd party environmental certification such as ISO14001; and - ensure that the Insulation Index is greater than 2.5
Mat 5	Designing For Durability and Resilience	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	1	0	Not sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained, therefore although the materials will be durable and resilient, an appraisal of alternatives has not been undertaken.
Mat 6	Material Efficiency	To recognise and encourage measures to optimise material efficiency in order to minimise environmental impact of material use and waste.	1	0	Not sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained, therefore although the materials selected will be used efficiently there is a limit to where savings can be made.
Waste					
Wst 1	Construction Site Waste Management	To promote resource efficiency via the effective management and reduction of construction waste.	4	4	The principal contractor will be required to implement a Site Waste Management Plan which includes a commitment to generate no more than 2.4 tonnes of construction waste per 100 m2 gross internal floor area and to divert at least 90% by volume of this waste from landfill.
Wst 2	Recycled aggregates	To recognise and encourage the use of recycled and secondary aggregates, thereby reducing the demand for virgin material and optimising material efficiency in construction.	1	0	Not sought- due to the limited redline boundary of the site there is no space to store aggregates generated on site. Furthermore, due to the necessary structural requirements of the building, materials using recycled aggregates may not be appropriate.
Wst 3	Operational Waste	To recognise and encourage the provision of dedicated storage facilities for a building's operational-related recyclable waste streams, so that this waste is diverted from landfill or incineration.	1	1	Broadway Malyan have provided a drawing which shows the location of the bin store (see the Basement Drawing). This drawing shows that there is 21 m ² available for bins, and there will be space for bins to be segregated. The bins will be appropriately labeled and there will be a washdown point.
Wst 5	Adaption to Climate Change	To recognise and encourage measures taken to mitigate the impact of extreme weather conditions arising from climate change over the lifespan of the building.	1	0	Not Sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained therefore materials have been selected with this as the primary goal. Thermal modelling has been undertaken which establishes that the hotel will not overheat.
Wst 6	Functional Adaptability	To recognise and encourage measures taken to accommodate future changes of use of the building over its lifespan.	1	0	Not sought- this building will be specifically constructed as a hotel, there is limited scope for this development to be easily altered to have additional uses.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Land Use & Ecology					
LE1	Site selection	To encourage the use of previously occupied and/or contaminated land and avoid land which has not been previously disturbed.	2	1	A Full Planning Application for the Demolition of existing building and erection of replacement mixed use building is being submitted for 29-35 Station Road, Reading. This is illustrated in the design drawings submitted with this application.
LE2	Ecological value of site AND Protection of ecological features	To encourage development on land that already has limited value to wildlife and to protect existing ecological features from substantial damage during site preparation and completion of construction works.	2	2	Ecosa have undertaken a site survey and have confirmed that the site is of low ecological value and that there are no features of ecological value within or around the construction zone.
LE3	Mitigating Ecological impact	To minimise the impact of a building development on existing site ecology.	2	2	Ecosa Ecologists have undertaken species richness calculations which demonstrate that there is potential to increase in species between pre and post development.
LE4	Enhancing Site Ecology	To encourage actions taken to enhance the ecological value of the site as a result of development.	2	2	Ecosa Ecologists have undertaken species richness calculations which demonstrate that there is potential to increase in species between pre and post development. This includes measures to encourage black redstarts, and a nest box for a peregrine falcon.
LE5	Long term impact on biodiversity	To minimise the long term impact of the development on the site and the surrounding area's biodiversity.	2	2	Ecosa Ecologists have been appointed prior to commencement of activities on-site and they have confirmed that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the design and construction process. A 5 year landscape management plan will be produced as part of the landscaping scheme. The principal contractor will be required to train site workforce with regard to ecology and to follow the recommendations set out by the SQE.
Pollution					
Pol 1	Impact of refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	3	1	PBA M&E have confirmed that a refrigerant leak detection system can be installed.
Pol 2	NOx emissions	To contribute to a reduction in national NOx emission levels through the use of low emission heat sources in the building.	3	0	Not sought - the final specification of the CHP engine has not yet been determined. If feasible, a low NOx option will be selected and these credits will be sought.
Pol 3	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.	5	4	A Flood Risk Assessment has been prepared by PBA and submitted with the planning Application. The flood risk map for planning from the Environment Agency (EA) is given in Appendix A of the Surface Water Drainage Strategy and shows the site is located in Flood Zone 1. This shows the site is located and therefore has a low probability of flooding. The impermeable area will not increase as a result of the development (therefore achieving 2 of the the credits by default).
Pol 4	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.	1	1	PBA M&E have confirmed that the external lighting can be designed so that it is automatically turned off between 2300 and 0700 unless required for security purposes.
Pol 5	Noise Attenuation	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	1	1	A noise report has been prepared as part of the planning application. PBA M&E have confirmed that all plant will be specified with noise attenuation equipment.

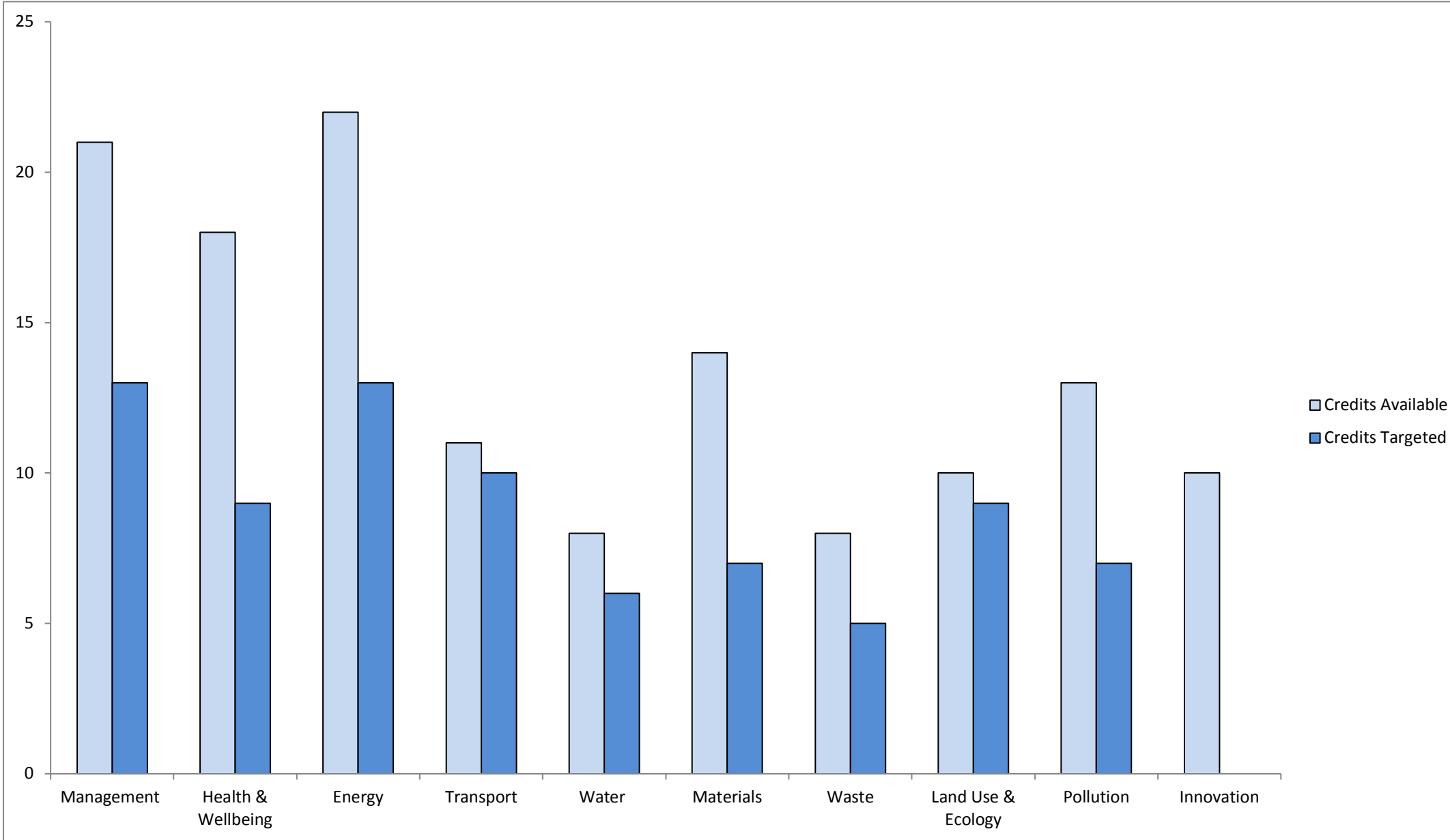
BREEAM Scheme: New Construction 2014 Building Name: 29-35 Station Road Registration No.: BREEAM-0073-4285 Assessor: Richard Knight					
Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Innovation - Exemplary Level Criteria					
Innovation	Man 3 - Responsible Construction Practices		1	0	Not Sought
Innovation	Man 5 - Aftercare		1	0	Not Sought
Innovation	Hea 1 - Visual Comfort		1	0	Not Sought
Innovation	Hea 2 - Indoor Air Quality		2	0	Not Sought
Innovation	Ene 1: Reduction of CO2 emissions		5	0	Not Sought
Innovation	Wat 1 - Water Consumption		1	0	Not Sought
Innovation	Mat 1 - Lifecycle Impacts		3	0	Not Sought
Innovation	Mat 3 - Responsible Sourcing		1	0	Not Sought
Innovation	Wst 1 - Construction Waste Management		1	0	Not Sought
Innovation	Wst 2 - Recycled Aggregates		1	0	Not Sought
Innovation	Wst 5 - Adaption to Climate Change		1	0	Not Sought

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Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Stage of Assessment	BREEAM Score	BREEAM Rating
0	63.67%	Very Good

Building Performance by Section					
	Environmental weighting	Credits Available	Credits Targeted	% Targeted	Weighted Score
Management	12.00%	21	13	61.90%	7.43%
Health & Wellbeing	15.00%	18	9	50.00%	7.50%
Energy	15.00%	22	13	59.09%	8.86%
Transport	9.00%	11	10	90.91%	8.18%
Water	7.00%	8	6	75.00%	5.25%
Materials	13.50%	14	7	50.00%	6.75%
Waste	8.50%	8	5	62.50%	5.31%
Land Use & Ecology	10.00%	10	9	90.00%	9.00%
Pollution	10.00%	13	7	53.85%	5.38%
Innovation	10.00%	10	0	0.00%	0.00%
Total BREEAM Score					63.67%



BREEAM Scheme: New Construction 2014
 Building Name: 29-35 Station Road
 Registration No.: BREEAM-0073-4384
 Assessor: Richard Knight



Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Management					
Man 1	Project Brief and Design	To recognise and encourage an integrated design process that optimises building performance.	4	2	Stakeholder Consultation between the project delivery team and keys third party stakeholders is taking place. Minutes and actions from these meetings are being collated and the outcomes of the consultations will be used to inform the design.
Man 2	Lifecycle cost and service life planning	To deliver whole life value from investment and promote economic sustainability by recognising and encouraging the use and sharing of life cycle costing and service life planning to improve design, specification and through-life maintenance and operation.	4	1	The design team have confirmed that they would be willing to report on the Capital Cost of the project
Man 3	Responsible Construction Practices	To recognise and encourage construction-sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	6	5	The Principal Contractor will be required to: - Procure all timber from legal sources - Operate an Environmental Management Plan - Register the site with the Considerate Constructors Scheme and achieve a score of at least 35 with no less than 7 in each category - Monitor utility consumption during construction; and - Monitor construction transport
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	4	3	PBA M&E have confirmed that they will include commissioning requirements within their performance specification. The Principal Contractor will then be required to: - create a commissioning schedule and assign responsibilities to appropriate individuals; - Commission building services; and - Provide a Building User Guide
Health & Wellbeing					
Hea 1	Visual Comfort	To ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	3	1	PBA M&E have confirmed that the internal and external lighting levels, zones and controls will be designed to meet CIBSE guidelines
Hea 2	Indoor air quality	To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.	2	0	Not sought.
Hea 4	Thermal comfort	To ensure that appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants within the building.	2	2	PBA M&E have established that the hotel will not overheat in accordance with Building Regulations. Additional iterations will be run as the design develops.
Hea 5	Acoustic Performance	To ensure the building's acoustic performance including sound insulation meet the appropriate standards for its purpose.	1	1	An acoustic report has been prepared and submitted with this application. Once the operator is known the full requirements of BREEAM will be discussed and implemented where appropriate.
Hea 6	Safety and security	To recognise and encourage effective measures that promote safe and secure use and access to and from the building.	2	0	Not sought- it was not necessary for a security consultant to be involved with the project.

BREEAM Scheme: New Construction 2014
 Building Name: 29-35 Station Road
 Registration No.: BREEAM-0073-4384
 Assessor: Richard Knight



Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Energy					
Ene 1	Reduction of CO2 Emissions	To recognise and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO2 emissions.	12	4	PBA M&E have prepared a BRUKL to support the planning application, when the figures entered from this report are used within the BREEAM calculation it shows 4 credits will be achieved.
Ene 2	Energy Monitoring	To recognise and encourage the installation of energy sub-metering that facilitates the monitoring of operational energy consumption.	2	2	PBA M&E have confirmed that energy sub-metering of major energy consuming systems and for high energy load areas can be provided
Ene 3	External Lighting	To recognise and encourage the specification of energy efficient light fittings for external areas of the development.	1	1	PBA M&E have confirmed that the external lighting specification can include energy efficient lighting which is controlled for the presence of daylight so as to prevent unwanted usage.
Ene 4	Low zero carbon technologies	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	3	0	Not sought- renewable technologies are not suitable to fit in with the development design - appraisal undertaken in Energy Strategy Report- e.g. no available roof area for PV.
Ene 6	Energy efficient transportation systems	To recognise and encourage the specification of energy efficient transportation systems.	3	3	At this stage in the design, the exact specification of the lift is not known. There is nothing to preclude the specification of a lift with energy efficient features at the appropriate stage of design.
Transport					
Tra 1	Public transport Accessibility	To recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.	3	3	The public transport Accessibility Index (AI) of the site has been calculated as 24.39 which allows 3 credits to be achieved.
Tra 2	Proximity to amenities	To encourage and reward a building location that facilitates easy access to local services and so reduces the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion.	1	1	There is access to cash machines at RBS to the south of the site (approximately 20 m away), a range food outlets opposite the site on Station Road, and at the railway station (150 m from the site).
Tra 3	Cyclist Facilities	To encourage building users to cycle, so promoting exercise and helping reduce congestion and emissions, by ensuring adequate provision of cyclist facilities.	2	1	Broadway Malyan have confirmed that cycle spaces will be provided. As confirmed in the Travel Plan lockers, showers and changing facilities will be put in place for staff walking or cycling to work.
Tra 4	Maximum Car Parking Capacity	To encourage the use of alternative means of transport other than the private car to and from the building, thereby helping to reduce transport-related emissions and traffic congestion associated with the building's operation.	2	2	No car parking will be provided on site. This is confirmed in the layout plans.
Tra 5	Travel plan	To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of reliance on forms of travel that have the highest environmental impact.	1	1	PBA Transport have prepared a Travel Plan as part of the planning application.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Water					
Wat 1	Water Consumption	To reduce the consumption of potable water for sanitary use in new buildings from all sources through the use of water efficient components and water recycling systems.	5	3	Low water consuming sanitary ware that provides a 40% reduction over a BRE baseline can be provided. This will typically include the installation of dual flush WC, low capacity urinals and low flow showers and taps.
Wat 2	Water monitoring	To ensure water consumption can be monitored and managed, and therefore encourage reductions.	1	1	PBA M&E have confirmed that water meters with a pulsed output are to be installed on the incoming main supply with additional meters provided for areas of the building which use more than 10% of the total (typically kitchen and toilet areas).
Wat 3	Major leak detection and prevention	To reduce the impact of water leaks that may otherwise go undetected.	2	2	PBA M&E have confirmed that a leak detection can be installed which is capable of detecting water leaks occurring between the building and boundary and also within the building itself. Furthermore they have also confirmed that solenoid valves to prevent unwanted water usage can be installed within the toilet areas.
Wat 4	Water Efficient Equipment	To reduce unregulated water consumption by encouraging specification of water efficient equipment.	1	1	Equipment will be specified to reduce the unregulated water demand, and demonstrate, through either good practice design or specification, a meaningful reduction in the total water demand of the building.
Materials					
Mat 1	Life cycle impacts	To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.	5	2	The materials which are to be used within the project will be highly rated within the Green Guide to Specification.
Mat 2	Hard landscaping and boundary protection	To recognise and encourage the specification of materials for boundary protection and external hard surfaces that have a low environmental impact, taking into account of the full life cycle of materials used.	1	0	Not sought- In order to target this credit recycled aggregates would need to be used under hardstanding areas within the development. This is likely to lead to a serious restriction on the supplies of ready mix concrete and macadam and would add substantial cost the project.
Mat 3	Responsible sourcing	To recognise and encourage the specification and procurement of responsibly sourced materials for key building elements.	4	3	The Principal Contractor will be required to: - ensure all timber is legally sourced; - have a Sustainable Procurement Plan; and - source materials from companies with 3rd party environmental certification such as ISO14001 or BES6001.
Mat 4	Insulation	To recognise and encourage the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties	1	1	The Principal Contractor will be required to: - source insulation materials from companies with 3rd party environmental certification such as ISO14001; and - ensure that the Insulation Index is greater than 2.5
Mat 5	Designing For Durability and Resilience	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	1	0	Not sought- Due to the high-rise nature of the development, the structural properties of the materials has to be maintained, therefore although the materials will be durable and resilient, an appraisal of alternatives has not been undertaken.
Mat 6	Material Efficiency	To recognise and encourage measures to optimise material efficiency in order to minimise environmental impact of material use and waste.	1	0	Not sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained, therefore although the materials selected will be used efficiently there is a limit to where savings can be made.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Waste					
Wst 1	Construction Site Waste Management	To promote resource efficiency via the effective management and reduction of construction waste.	4	4	The principal contractor will be required to implement a Site Waste Management Plan which includes a commitment to generate no more than 2.4 tonnes of construction waste per 100 m2 gross internal floor area and to divert at least 90% by volume of this waste from landfill.
Wst 2	Recycled aggregates	To recognise and encourage the use of recycled and secondary aggregates, thereby reducing the demand for virgin material and optimising material efficiency in construction.	1	0	Not sought- due to the limited redline boundary of the site there is no space to store aggregates generated on site. Furthermore, due to the structural requirements of the building, materials using recycled aggregates may not be appropriate.
Wst 3	Operational Waste	To recognise and encourage the provision of dedicated storage facilities for a building's operational-related recyclable waste streams, so that this waste is diverted from landfill or incineration.	1	1	Broadway Malyan have provided a drawing which shows the location of the bin store (see the Basement Drawing). This drawing shows that there is 21 m ² available for bins, and there will be space for bins to be segregated. The bins will be appropriately labeled and there will be a washdown point.
Wst 4	Speculative Floor and Ceiling Finishes	To encourage the specification and fitting of floor and ceiling finishes selected by the building occupant and therefore avoid unnecessary waste of materials.	1	1	For tenanted areas (where the future occupant is not known), prior to full fit-out works, carpets, other floor finishes and ceiling finishes will be installed in a show area only. If the offices will be developed for a specific occupant, the occupant will select (or agree to) the specified floor and ceiling finishes.
Wst 5	Adaption to Climate Change	To recognise and encourage measures taken to mitigate the impact of extreme weather conditions arising from climate change over the lifespan of the building.	1	0	Not Sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained therefore materials have been selected with this as the primary goal. Thermal modelling has been undertaken which establishes that the hotel will not overheat.
Wst 6	Functional Adaptability	To recognise and encourage measures taken to accommodate future changes of use of the building over its lifespan.	1	0	Not sought- this building will be specifically constructed as a hotel, there is limited scope for this development to be easily altered to have additional uses.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Land Use & Ecology					
LE1	Site selection	To encourage the use of previously occupied and/or contaminated land and avoid land which has not been previously disturbed.	2	1	A Full Planning Application for the Demolition of existing building and erection of replacement mixed use building is being submitted for 29-35 Station Road, Reading. This is illustrated in the design drawings submitted with this application.
LE2	Ecological value of site AND Protection of ecological features	To encourage development on land that already has limited value to wildlife and to protect existing ecological features from substantial damage during site preparation and completion of construction works.	2	2	Ecosa have undertaken a site survey and have confirmed that the site is of low ecological value and that there are no features of ecological value within or around the construction zone.
LE3	Mitigating Ecological impact	To minimise the impact of a building development on existing site ecology.	2	2	Ecosa Ecologists have undertaken species richness calculations which demonstrate that there is potential to increase in species between pre and post development.
LE4	Enhancing Site Ecology	To encourage actions taken to enhance the ecological value of the site as a result of development.	2	2	Ecosa Ecologists have undertaken species richness calculations which demonstrate that there is potential to increase in species between pre and post development. This includes measures to encourage black redstarts, and a nest box for a peregrine falcon.
LE5	Long term impact on biodiversity	To minimise the long term impact of the development on the site and the surrounding area's biodiversity.	2	2	Ecosa Ecologists have been appointed prior to commencement of activities on-site and they have confirmed that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the design and construction process. The principal contractor will be required to train site workforce with regard to ecology and to follow the recommendations set out by the SQE.

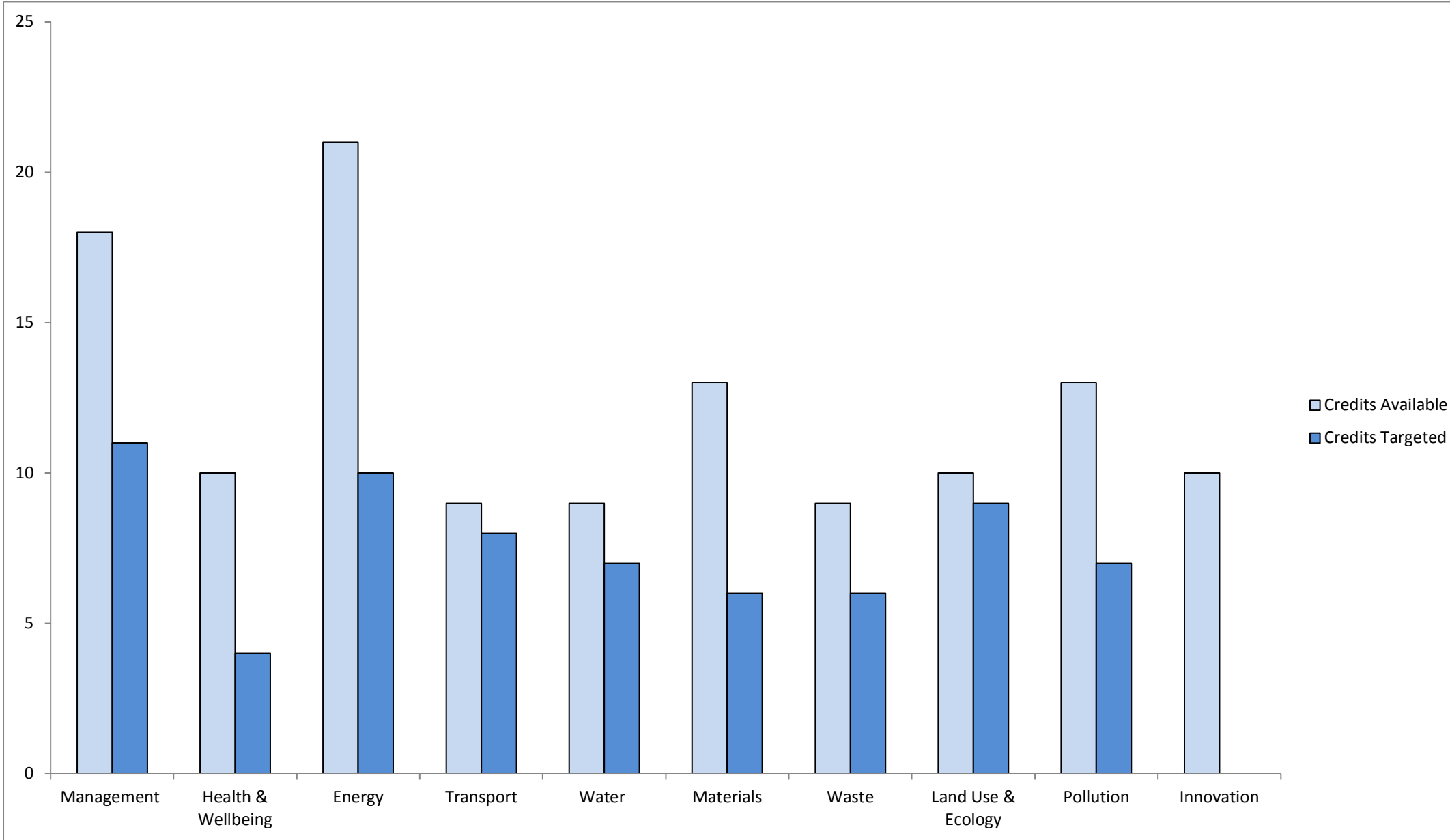
BREEAM Scheme: New Construction 2014 Building Name: 29-35 Station Road Registration No.: BREEAM-0073-4384 Assessor: Richard Knight					
Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Pollution					
Pol 1	Impact of refrigerants	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	3	1	PBA M&E have confirmed that a refrigerant leak detection system can be installed.
Pol 2	NOx emissions	To contribute to a reduction in national NOx emission levels through the use of low emission heat sources in the building.	3	0	Not sought - the final specification of the CHP engine has not yet been determined. If feasible, a low NOx option will be selected and these credits will be sought.
Pol 3	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.	5	4	A Flood Risk Assessment has been prepared by PBA and submitted with the planning Application. The flood risk map for planning from the Environment Agency (EA) is given in Appendix A of the Surface Water Drainage Strategy and shows the site is located in Flood Zone 1. This shows the site is located and therefore has a low probability of flooding. The impermeable area will not increase as a result of the development (therefore achieving 2 of the the credits by default)
Pol 4	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.	1	1	PBA M&E have confirmed that the external lighting can be designed so that it is automatically turned off between 2300 and 0700 unless required for security purposes.
Pol 5	Noise Attenuation	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	1	1	A noise report has been prepared as part of the planning application. PBA M&E have confirmed that all plant will be specified with noise attenuation equipment.
Innovation - Exemplary Level Criteria					
Innovation	Man 3 - Responsible Construction Practices		1	0	Not Sought
Innovation	Man 5 - Aftercare		1	0	Not Sought
Innovation	Hea 1 - Visual Comfort		1	0	Not Sought
Innovation	Ene 1: Reduction of CO2 emissions		5	0	Not Sought
Innovation	Wat 1 - Water Consumption		1	0	Not Sought
Innovation	Mat 1 - Lifecycle Impacts		3	0	Not Sought
Innovation	Mat 3 - Responsible Sourcing		1	0	Not Sought
Innovation	Wst 1 - Construction Waste Management		1	0	Not Sought
Innovation	Wst 2 - Recycled Aggregates		1	0	Not Sought
Innovation	Wst 5 - Adaption to Climate Change		1	0	Not Sought

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Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Stage of Assessment	BREEAM Score	BREEAM Rating
Interim Design Stage	61.64%	Very Good

Building Performance by Section					
	Environmental weighting	Credits Available	Credits Targeted	% Targeted	Weighted Score
Management	11.00%	18	11	61.11%	6.72%
Health & Wellbeing	10.50%	10	4	40.00%	4.20%
Energy	15.00%	21	10	47.62%	7.14%
Transport	10.00%	9	8	88.89%	8.89%
Water	7.50%	9	7	77.78%	5.83%
Materials	14.50%	13	6	46.15%	6.69%
Waste	9.50%	9	6	66.67%	6.33%
Land Use & Ecology	11.00%	10	9	90.00%	9.90%
Pollution	11.00%	13	7	53.85%	5.92%
Innovation	10.00%	10	0	0.00%	0.00%
Total BREEAM Score					61.64%



BREEAM Scheme: New Construction 2014
Building Name: 29-35 Station Road, Reading
Registration No.: BREEAM-0073-4459
Assessor: Richard Knight

Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Management					
Man 1	Project Brief and Design	To recognise and encourage an integrated design process that optimises building performance.	4	2	Stakeholder Consultation between the project delivery team and keys third party stakeholders is taking place. Minutes and actions from these meetings are being collated and the outcomes of the consultations will be used to inform the design.
Man 2	Lifecycle cost and service life planning	To deliver whole life value from investment and promote economic sustainability by recognising and encouraging the use and sharing of life cycle costing and service life planning to improve design, specification and through-life maintenance and operation.	4	1	The design team have confirmed that they would be willing to report on the Capital Cost of the project.
Man 3	Responsible Construction Practices	To recognise and encourage construction-sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	6	5	The Principal Contractor will be required to: - Procure all timber from legal sources - Operate an Environmental Management Plan - Register the site with the Considerate Constructors Scheme and achieve a score of at least 35 with no less than 7 in each category - Monitor utility consumption during construction; and - Monitor construction transport
Man 4	Commissioning and Handover	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	1	0	Not sought.
Health & Wellbeing					
Hea 1	Visual Comfort	To ensure daylighting, artificial lighting and occupant controls are considered at the design stage to ensure best practice in visual performance and comfort for building occupants.	4	0	There is no lighting being installed for the retail, and calculations have not been undertaken at this stage in relation to 'view out'.
Hea 2	Indoor air quality	To recognise and encourage a healthy internal environment through the specification and installation of appropriate ventilation, equipment and finishes.	1	0	Not sought
Hea 5	Acoustic Performance	To ensure the building's acoustic performance including sound insulation meet the appropriate standards for its purpose.	1	1	An acoustic report has been prepared by KP Acoustics and submitted with this application. Once the operator is known the full requirements of BREEAM will be discussed and implemented where appropriate.
Hea 6	Safety and security	To recognise and encourage effective measures that promote safe and secure use and access to and from the building.	2	0	Not sought- it was not necessary for a security consultant to be involved with the project.

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Ref	Title	Aim	BREEAM credits available	BREEAM credits targeted	Notes
Energy					
Ene 1	Reduction of CO2 Emissions	To recognise and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO2 emissions.	12	2	PBA M&E have prepared a BRUKL to support the planning application, when the figures entered from this report are used within the BREEAM calculation it shows 2 credits will be achieved.
Ene 3	External Lighting	To recognise and encourage the specification of energy efficient light fittings for external areas of the development.	1	1	PBA M&E have confirmed that the external lighting specification can include energy efficient lighting which is controlled for the presence of daylight so as to prevent unwanted usage.
Ene 4	Low zero carbon technologies	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	3	0	Not sought- renewable technologies are not suitable to fit in with the development design - appraisal undertaken in Energy Strategy Report- e.g. no available roof area for PV.
Transport					
Tra 1	Public transport Accessibility	To recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.	5	5	The public transport Accessibility Index (AI) of the site has been calculated as 24.39 which allows 5 credits to be achieved.
Tra 2	Proximity to amenities	To encourage and reward a building location that facilitates easy access to local services and so reduces the environmental, social and economic impacts resulting from multiple or extended building user journeys, including transport-related emissions and traffic congestion.	1	1	There is access to cash machines at RBS to the south of the site (approximately 20 m away), a range food outlets opposite the site on Station Road, and at the railway station (150 m from the site).
Tra 3	Cyclist Facilities	To encourage building users to cycle, so promoting exercise and helping reduce congestion and emissions, by ensuring adequate provision of cyclist facilities.	2	1	Broadway Malyan have confirmed that cycle spaces will be provided. As confirmed in the Travel Plan lockers, showers and changing facilities will be put in place for staff walking or cycling to work.
Tra 5	Travel plan	To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of reliance on forms of travel that have the highest environmental impact.	1	1	PBA Transport have prepared a Travel Plan as part of the planning application.
Water					
Wat 2	Water monitoring	To ensure water consumption can be monitored and managed, and therefore encourage reductions.	1	1	PBA M&E have confirmed that water meters with a pulsed output are to be installed on the incoming main supply with additional meters provided for areas of the building which use more than 10% of the total (typically kitchen and toilet areas).
Wat 3	Major leak detection and prevention	To reduce the impact of water leaks that may otherwise go undetected.	1	1	PBA M&E have confirmed that a leak detection can be installed which is capable of detecting water leaks occurring between the building and boundary and also within the building itself. Furthermore they have also confirmed that solenoid valves to prevent unwanted water usage can be installed within the toilet areas.
Wat 4	Water Efficient Equipment	To reduce unregulated water consumption by encouraging specification of water efficient equipment.	1	1	Equipment will be specified to reduce the unregulated water demand, and demonstrate, through either good practice design or specification, a meaningful reduction in the total water demand of the building.

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Materials					
Mat 1	Life cycle impacts	To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.	5	2	The materials which are to be used within the project will be highly rated within the Green Guide to Specification.
Mat 2	Hard landscaping and boundary protection	To recognise and encourage the specification of materials for boundary protection and external hard surfaces that have a low environmental impact, taking into account of the full life cycle of materials used.	1	0	Not sought- in order to target this credit recycled aggregates would need to be used under hardstanding areas within the development. This is likely to lead to a serious restriction on the supplies of ready mix concrete and macadam and would add substantial cost the project.
Mat 3	Responsible sourcing	To recognise and encourage the specification and procurement of responsibly sourced materials for key building elements.	4	3	The Principal Contractor will be required to: - ensure all timber is legally sourced; - have a Sustainable Procurement Plan; and - source materials from companies with 3rd party environmental certification such as ISO14001 or BES6001
Mat 4	Insulation	To recognise and encourage the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties	1	1	The Principal Contractor will be required to: - source insulation materials from companies with 3rd party environmental certification such as ISO14001; and - ensure that the Insulation Index is greater than 2.5
Mat 5	Designing For Durability and Resilience	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	1	0	Not sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained, therefore although the materials will be durable and resilient, an appraisal of alternatives has not been undertaken.
Mat 6	Material Efficiency	To recognise and encourage measures to optimise material efficiency in order to minimise environmental impact of material use and waste.	1	0	Not sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained, therefore although the materials selected will be used efficiently there is a limit to where savings can be made.
Waste					
Wst 1	Construction Site Waste Management	To promote resource efficiency via the effective management and reduction of construction waste.	4	4	The principal contractor will be required to implement a Site Waste Management Plan which includes a commitment to generate no more than 2.4 tonnes of construction waste per 100 m2 gross internal floor area and to divert at least 90% by volume of this waste from landfill.
Wst 2	Recycled aggregates	To recognise and encourage the use of recycled and secondary aggregates, thereby reducing the demand for virgin material and optimising material efficiency in construction.	1	0	Not sought- due to the limited redline boundary of the site there is no space to store aggregates generated on site. Furthermore, due to the necessary structural requirements of the building, materials using recycled aggregates may not be appropriate.
Wst 3	Operational Waste	To recognise and encourage the provision of dedicated storage facilities for a building's operational-related recyclable waste streams, so that this waste is diverted from landfill or incineration.	1	1	Broadway Malyan have provided a drawing which shows the location of the bin store (see the Basement Drawing). This drawing shows that there is 21 m ² available for bins, and there will be space for bins to be segregated. The bins will be appropriately labeled and there will be a washdown point.
Wst 5	Adaption to Climate Change	To recognise and encourage measures taken to mitigate the impact of extreme weather conditions arising from climate change over the lifespan of the building.	1	0	Not Sought- due to the high-rise nature of the development, the structural properties of the materials has to be maintained therefore materials have been selected with this as the primary goal. Thermal modelling has been undertaken which establishes that the hotel will not overheat.
Wst 6	Funcational Adaptability	To recognise and encourage measures taken to accommodate future changes of use of the building over its lifespan.	1	0	Not sought- this building will be specifically constructed as a hotel, there is limited scope for this development to be easily altered to have additional uses.

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Land Use & Ecology					
LE1	Site selection	To encourage the use of previously occupied and/or contaminated land and avoid land which has not been previously disturbed.	2	1	A Full Planning Application for the Demolition of existing building and erection of replacement mixed use building is being submitted for 29-35 Station Road, Reading. This is illustrated in the design drawings submitted with this application
LE2	Ecological value of site AND Protection of ecological features	To encourage development on land that already has limited value to wildlife and to protect existing ecological features from substantial damage during site preparation and completion of construction works.	2	2	Ecosa have undertaken a site survey and have confirmed that the site is of low ecological value and that there are no features of ecological value within or around the construction zone.
LE3	Mitigating Ecological impact	To minimise the impact of a building development on existing site ecology.	2	2	Ecosa Ecologists have undertaken species richness calculations which demonstrate that there is potential to increase in species between pre and post development.
LE4	Enhancing Site Ecology	To encourage actions taken to enhance the ecological value of the site as a result of development.	2	2	Ecosa Ecologists have undertaken species richness calculations which demonstrate that there is potential to increase in species between pre and post development. This includes measures to encourage black redstarts, and a nest box for a peregrine falcon.
LE5	Long term impact on biodiversity	To minimise the long term impact of the development on the site and the surrounding area's biodiversity.	2	2	Ecosa Ecologists have been appointed prior to commencement of activities on-site and they have confirmed that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the design and construction process. The principal contractor will be required to train site workforce with regard to ecology and to follow the recommendations set out by the SQE.
Pollution					
Pol 3	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.	5	4	A Flood Risk Assessment has been prepared by PBA and submitted with the planning Application. The flood risk map for planning from the Environment Agency (EA) is given in Appendix A of the Surface Water Drainage Strategy and shows the site is located in Flood Zone 1. This shows the site is located and therefore has a low probability of flooding. The impermeable area will not increase as a result of the development (therefore achieving 2 of the the credits by default).
Pol 4	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.	1	1	PBA M&E have confirmed that the external lighting can be designed so that it is automatically turned off between 2300 and 0700 unless required for security purposes.
Innovation - Exemplary Level Criteria					
Innovation	Man 3 - Responsible Construction Practices		1	0	Not sought
Innovation	Man 5 - Aftercare		1	0	Not sought
Innovation	Hea 1 - Visual Comfort		1	0	Not sought
Innovation	Ene 1: Reduction of CO2 emissions		5	0	Not sought
Innovation	Wat 1 - Water Consumption		1	0	Not sought
Innovation	Mat 1 - Lifecycle Impacts		3	0	Not sought
Innovation	Mat 3 - Responsible Sourcing		1	0	Not sought
Innovation	Wst 1 - Construction Waste Management		1	0	Not sought
Innovation	Wst 2 - Recycled Aggregates		1	0	Not sought
Innovation	Wst 5 - Adaption to Climate Change		1	0	Not sought

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Building Name: 29-35 Station Road, Reading
BREEAM Registration No.: BREEAM-0073-4459
BREEAM Assessor: Richard Knight

Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Stage of Assessment	BREEAM Score	BREEAM Rating
Interim Design Stage	56.51%	Very Good

Building Performance by Section					
	Environmental weighting	Credits Available	Credits Targeted	% Targeted	Weighted Score
Management	12.50%	15	8	53.33%	6.67%
Health & Wellbeing	10.00%	8	1	12.50%	1.25%
Energy	14.50%	16	3	18.75%	2.72%
Transport	11.50%	9	8	88.89%	10.22%
Water	4.00%	3	3	100.00%	4.00%
Materials	17.50%	13	6	46.15%	8.08%
Waste	11.00%	8	5	62.50%	6.88%
Land Use & Ecology	13.00%	10	9	90.00%	11.70%
Pollution	6.00%	6	5	83.33%	5.00%
Innovation	10.00%	10	0	0.00%	0.00%
Total BREEAM Score					56.51%

