

**PROPOSED NEW CINEMA AND RESTAURANT
UNITS TO BE CONSTRUCTED AS AN
EXTENSION TO THE ALHAMBRA SHOPPING
CENTRE:
BARNSELEY
S70 1SB**

SUSTAINABILITY AND ENERGY STATEMENT

AUGUST 2014

**CRAIG
FOSTER
ARCHITECTS**

REVISIONS

Revision	Date	Details	By

INDEX

Section	Element	Page
1.00	Description of the Works	4
2.00	Sustainability and Energy Proposals	5
3.00	Renewable Energy Statement	6
4.00	BREEAM Statement	7-37

1.00 **DESCRIPTION OF THE WORKS**

- 1.01 Construction of new cinema and restaurants at Gallery Level, Alhambra Shopping Centre. Amended entrance from New Street. Alterations to carparking. Associated alterations at retail mall levels. New external display signage. Demolitions associated with the proposals.

2.00 SUSTAINABILITY AND ENERGY PROPOSALS

2.01 The development will install and implement renewable or low carbon energy sources to reduce the carbon emissions of predicted energy use by at least 15%.

A Renewable Energy Statement is enclosed to demonstrate how this may be achieved and areas of potential solar PVs are indicated on the plans.

2.02 The energy efficiency standard of the development will be to achieve BREEAM "Very Good".

A pre-assessment has been undertaken using the BREEAM UK New Construction 2014 Pre-Assessment Estimator Tool, attached, to demonstrate that the scheme will achieve "Very Good" and achieves the minimum standards required for an Excellent rating.

Barnsley : Alhambra Shopping Centre Development

Proposed New Leisure Facilities at Gallery Level

Renewable Energy Statement



Benchmark figures taken from CIBSE Guide F Table F20.1, for planning purposes only. These are taken as upper limit figures which will be reduced following detailed design.

CO₂ conversion factor 0.545 from Defra / Carbon Trust.


Use	Area m ²	Benchmarks kWh/m ² /year		Energy Demand kWh/year		Total kWh/year	Total kgCO ₂ /year
		Fossil	Elec	Fossil	Elec		
Cinema	2,591	515	135	1,334,365	349,785	1,684,150	917,862
Office	212	97	128	20,564	27,136	47,700	25,996
Restaurant	1,580	1,100	650	1,738,000	1,027,000	2,765,000	1,506,925
Storage	200	187	34	37,400	6,800	44,200	24,089
Total	4,583			3,130,329	1,410,721	4,541,050	2,474,872

Total CO₂ is 2,474 tonnes per annum

15% reduction will be **371 tonnes CO₂ per annum** from renewables.

In practice it is expected that this will be achieved from a mixture of solar photovoltaics and air source heat pumps.

Barnsley : Alhambra Shopping Centre Development
Proposed New Leisure Facilities at Gallery Level
BREEAM Statement

The logo for Craig Foster Energy, featuring the company name in white, bold, sans-serif capital letters stacked vertically on a green rectangular background.

**CRAIG
FOSTER
ENERGY**

The proposed development will be assessed using BREEAM 2014 for new construction.

A pre-assessment has been undertaken using the BREEAM UK New Construction 2014 Pre-Assessment Estimator tool, and the results of that are attached.

The scheme will achieve a 'Very Good' rating with an indicative total score of 55.5%, and will achieve the minimum standards required for an excellent rating.

General information

BRE Assessment reference no.	to be confirmed
Client name	Barnsley Shopping Centre Ltd c/o F&C Reit Asset Management
Building end user/occupier	to be confirmed
Assessor name	Colin Binns
Assessor organisation	Craig Foster Energy

Building details

Building name	Alhambra Shopping Centre Development
Country	England
Building type (main description)	Other: Assembly and Leisure
Building type (sub-group)	Assembly and Leisure - Cinema
Building floor area (GIA) m ²	5133
Building floor area (NIFA) m ²	4638
BREEAM scheme	New Construction
BREEAM version	2014 (SD5076)
BREEAM UK 2014 technical manual issue number	SD5076 Issue 1.0
Project type	New Construction (shell and core)
Assessment stage	Pre-Assessment
Location type	Medium urban (>25,000 population)
If applicable, does this industrial building have a heated or cooled operational area?	Option not applicable to building type
Commercial/industrial refrigeration and storage systems	No
Building user transportation systems (lifts and/or escalators)	Yes
Laboratory function/area and size category	No laboratory
Laboratory containment level	No laboratory
Fume cupboard(s) and/or other containment devices	No
Unregulated water uses present? (e.g. vehicle wash system, irrigation)	No
If applicable, will this healthcare building house inpatients?	Option not applicable to building type
If applicable, does this industrial building have an office area?	Option not applicable to building type
If applicable, does this building contain areas requiring SAP assessment?	Option not applicable to building type
If SAP used, what proportion of the building's total floor area (GIA) does it apply to?	Option not applicable to building type

Disclaimer

This Pre-Assessment Estimator is the property of BRE Global Ltd and is made publicly available for information purposes only. Its use for testing, assessment, certification or approval is not permitted. The results presented are indicative only of a building's potential performance which is based on a simplified, informal assessment and unverified commitments. The results do not represent a formal certified BREEAM assessment or rating and must not be communicated as such. BRE Global Ltd accepts no responsibility for any actions taken as a result of information presented or interpreted by the BREEAM Pre-Assessment Estimator. To carry out a formal BREEAM assessment contact a licensed BREEAM Assessor organisation. A list of licensed BREEAM Assessors is available from the Green Book Live website: www.greenbooklive.com

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Building name	Alhambra Shopping Centre Development		
Building score (%)	55.51%		
Building rating	Very Good		
Minimum standards level achieved	Excellent level		

MANAGEMENT

Man 01 Project brief and design

No. of BREEAM credits available	4	Available contribution to overall score	2.44%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will stakeholder consultation (project delivery) take place?		1	0
Will stakeholder consultation (third party) take place?		1	0
Will a sustainability champion (design) be assigned?		1	0
Will a sustainability champion (monitoring progress) be assigned?		1	0
Total BREEAM credits achieved		0	
Total contribution to overall building score		0.00%	
Total BREEAM innovation credits achieved		0	
Minimum standard(s) level	N/A		

Comments/notes:

Man 02 Life cycle cost and service life planning

No. of BREEAM credits available	4	Available contribution to overall score	2.44%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an elemental life cycle cost (LCC) analyses be carried out?		2	0
Will a component level LCC plan be developed?		1	0
Will the predicted capital cost be reported?		1	0
Expected capital cost of the project (if available)		£/m ²	
Total BREEAM credits achieved		0	
Total contribution to overall building score		0.00%	
Total BREEAM innovation credits achieved		N/A	
Minimum standard(s) level	N/A		

Comments/notes:

Man 03 Responsible construction practices

No. of BREEAM credits available	6	Available contribution to overall score	3.67%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Is all site timber used in the project 'legally harvested and traded timber'?	Yes		
Will/does the principal contractor operate a compliant Environmental Management System?	Yes	1	1
Will a construction stage sustainability champion be assigned?	Yes	1	1
Will a considerate construction scheme be used by the principal contractor? (One credit where 'compliance' has been achieved. Two credits where 'compliance' is significantly exceeded.)	2	2	2
Will construction site impacts be metered/monitored?	Yes		
Will site utility consumption be metered/monitored?	Yes	1	1
Will transport of construction materials and waste be metered/monitored?	No	1	0
Will exemplary level criteria be met?	No	1	0

Total BREEAM credits achieved	5
Total contribution to overall building score	3.06%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Man 04 Commissioning and handover

No. of BREEAM credits available	4	Available contribution to overall score	2.44%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will commissioning schedule and responsibilities be developed & accounted for?	Yes	1	1
Will a commissioning manager be appointed?	Yes	1	1
Will the building fabric be commissioned?	No	1	0
Will a training schedule for building occupiers/managers at Handover?	Yes	1	1
Will a building user guide be developed prior to handover?	Yes		

Total BREEAM credits achieved	3
Total contribution to overall building score	1.83%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Man 05 Aftercare

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	1	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will aftercare support be provided to building occupiers?			
Will seasonal commissioning occur over 12 months once substantially occupied?			
Will a post occupancy evaluation be carried out 1 year after occupation?			
Will exemplary level criteria be met?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

HEALTH & WELLBEING

Hea 01 Visual Comfort

No. of BREEAM credits available	4	Available contribution to overall score	3.82%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the design provide adequate glare control for building users?	No	1	0
Will relevant building areas be designed to achieve appropriate daylight factor(s)?	0	1	0
Will the design provide adequate view out for building users?	No	1	0
Will internal/external lighting levels, zoning and controls be specified in accordance with the relevant CIBSE Guides/British Standards?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	0.95%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Hea 02 Indoor Air Quality

No. of BREEAM credits available	2	Available contribution to overall score	1.91%
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an air quality plan be produced and building designed to minimise air pollution?			
Will building be designed to minimise the concentration and recirculation of pollutants in the building?	Yes	1	1
Will the relevant products be specified to meet the VOC testing and emission levels required?			
Will formaldehyde and total VOC levels be measured post construction?			
Will the building be designed to, or have the potential to provide, natural ventilation?	No	1	0
Will exemplary level VOCs (products) criteria be met?			

Total BREEAM credits achieved	1
Total contribution to overall building score	0.95%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 03 Safe containment in laboratories

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an objective risk assessment of proposed laboratory facilities' design be completed?			
Will the manufacture & installation of fume cupboards and containment devices meet best practice standards?			
Will containment level 2 & 3 labs meet best practice safety & performance criteria?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 04 Thermal comfort

No. of BREEAM credits available	2	Available contribution to overall score	1.91%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will thermal modelling of the design be carried out?	Yes	1	1
Will the building design be adapted for a projected climate change scenario?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	0.95%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 05 Acoustic Performance

No. of BREEAM credits available	1	Available contribution to overall score	0.95%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

	Credits	Credits available	Credits achieved
Will the building meet the appropriate acoustic performance standards and testing requirements for: a. Sound insulation b. Indoor ambient noise level c. Reverberation times?	1	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.95%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 06 Safety and Security

No. of BREEAM credits available	2	Available contribution to overall score	1.91%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

	Compliant?	Credits available	Credits achieved
Where external site areas are present, will safe access be designed for pedestrians and cyclists?	N/A	0	0
Will a suitably qualified security consultant be appointed and security considerations accounted for?	No	2	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

ENERGY

Ene 01 Reduction of energy use and carbon emissions

No. of BREEAM credits available	12	Available contribution to overall score	8.57%
No. of BREEAM innovation credits available	5	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits achieved for this issue?

Select the target number of BREEAM credits for the Ene01 issue:

Ene 01 Calculator

Country of the UK where the building is located	<input type="text"/>	Confirm building regulation and version to be used:	<input type="text"/>
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New Construction (shell and core)

Building floor area	<input type="text"/>	m2
Notional building heating and cooling energy demand	<input type="text"/>	MJ/m2yr
Actual building heating and cooling energy demand	<input type="text"/>	MJ/m2yr
Notional building primary energy consumption	<input type="text"/>	kWh/m2yr
Actual building primary energy consumption	<input type="text"/>	kWh/m2yr
Target emission rate (TER)	<input type="text"/>	kgCO2/m2yr
Building emission rate (BER)	<input type="text"/>	kgCO2/m2yr
Building emission rate improvement over TER	<input type="text"/>	
Heating & cooling demand energy performance ratio (EPR _{ED})	<input type="text"/>	
Primary consumption energy performance ratio (EPR _{PC})	<input type="text"/>	
CO ₂ Energy performance ratio (EPR _{CO2})	<input type="text"/>	
Overall building energy performance ratio (EPR _{Nc})	<input type="text"/>	

Where specified, please confirm the energy production from onsite or near site energy generation technologies	<input type="text"/>
Equivalent % of the building's 'regulated' energy consumption generated by carbon neutral sources and used to meet energy demand from 'unregulated' building systems or processes?	<input type="text"/>
Is the building designed to be 'carbon negative' ?	<input type="text"/>
If the building is defined as 'carbon negative' what is the total (modelled) renewable/carbon neutral energy generated and exported?	<input type="text"/>

Total BREEAM credits achieved	6
Total contribution to overall building score	4.29%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Excellent level

Comments/notes:

Ene 02 Energy monitoring

No. of BREEAM credits available	2	Available contribution to overall score	1.43%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a BMS or sub-meters be specified to monitor energy use from major building services systems?	Yes	1	1
Will a BMS or sub-meters be specified to monitor energy use by tenant/building function areas?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	1.43%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Ene 03 External lighting

No. of BREEAM credits available	1	Available contribution to overall score	0.71%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will external light fittings and controls be specified in accordance with the BREEAM criteria?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.71%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 04 Low carbon design

No. of BREEAM credits available	3	Available contribution to overall score	2.14%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will passive design measures be used in line with an analysis be carried out during concept design stage (RIBA stage 2 or equivalent)?	No	1	0
Will free cooling measures be implemented in the whole building in line with the passive design analysis?	No	1	0
Will a LZC technology be specified in line with a feasibility study carried out by the completion of the Concept Design stage (RIBA Stage 2 or equivalent)?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.71%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 05 Energy efficient cold storage

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Will the refrigeration system be designed, installed & commissioned in accordance with BREEAM criteria?		N/A	N/A
Will the refrigeration system demonstrate a saving in indirect greenhouse gas emissions?		N/A	N/A

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 06 Energy efficient transportation systems

No. of BREEAM credits available	3	Available contribution to overall score	2.14%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a transportation system analysis be carried out to determine and specify the optimum number, size and type of lifts that is most energy efficient?	Yes	1	1
Will the relevant energy-efficient features criteria be met?	Yes	2	2

Total BREEAM credits achieved	3
Total contribution to overall building score	2.14%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 07 Energy efficient laboratory systems

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Pre-requisite: Criterion 1 of Hea 03 - risk assessment of laboratory facilities			
Have the occupants' laboratory requirements & performance criteria been confirmed during the preparation of the initial project brief to minimise energy demand?			
Best Practice Energy Practices in Laboratories (table 27)			
Will the laboratory meet criteria item b) Fan power?			
Will the laboratory criteria item c) Fume cupboard volume flow rates?			
Will the lab meet item d) Grouping / isolation of high filtration/ventilation activities?			
Will the laboratory meet criteria item e) Energy recovery - heat?			
Will the laboratory meet criteria item f) Energy recovery - cooling?			
Will the laboratory meet criteria item g) Grouping of cooling loads?			
Will the laboratory meet criteria item h) Free cooling?			
Will the laboratory meet criteria item i) Load responsiveness?			
Will the laboratory meet criteria item j) Cleanrooms?			
Will the laboratory meet criteria item k) Diversity?			
Will the laboratory meet criteria item l) Room air-change rates?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 08 Energy efficient equipment

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria

Which of the following will be present and likely to be a/the major contributor to 'unregulated' energy use?	Present	Major impact
Ref A Small power and plug in equipment?		
Ref B Swimming pool?		
Ref C Communal laundry?		
Ref D Data centre?		
Ref E IT-intensive operation areas?		
Ref F Residential areas?		
Ref G Healthcare?		
Ref H Kitchen and catering facilities?		

Will the significant majority contributor(s) to 'unregulated' energy use above meet the BREEAM criteria?	Compliant	Credits available	Credits achieved

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 09 Drying space

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria

Will internal/external drying space and fixings be provided?	Compliant?	Credits available	Credits achieved

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

TRANSPORT

Tra 01 Public Transport Accessibility

No. of BREEAM credits available	5	Available contribution to overall score	5.56%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra01 issue assessment)	Retail
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Assessment Criteria	Compliant	Credits available	Credits achieved
Indicative public transport accessibility index (AI):	12.00	5	4
Will the building have a dedicated bus service?			N/A

AI	Indicative Accessibility Index for pre-assessment
0	Poor or no public transport provision
1	A single BREEAM compliant public transport node available
2	Some BREEAM compliant public transport nodes/services available
4	A selection of BREEAM compliant public transport nodes/services available
8	Good provision of public transport i.e. small urban centre / suburban area
10	Very Good provision of public transport i.e. small/medium urban centre
12	Excellent provision of public transport, i.e. medium urban centre
18	Excellent provision of public transport, i.e. large urban/metropolitan city centre

Total BREEAM credits achieved	4
Total contribution to overall building score	4.44%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 02 Proximity to Amenities

No. of BREEAM credits available	1	Available contribution to overall score	1.11%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the building be in close proximity of and accessible to applicable amenities?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	1.11%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 03 Cyclist facilities

No. of BREEAM credits available	2	Available contribution to overall score	2.22%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra03 issue assessment)	Retail – Shopping centre / retail park
How many compliant cycle storage spaces will be provided?	0
What cyclist facilities will be provided?	No compliant facilities

Assessment Criteria	Compliant?	Credits available	Credits achieved
Cycle storage spaces	No	2	0
Cyclist facilities	No		
Total BREEAM credits achieved	0		
Total contribution to overall building score	0.00%		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

Tra 04 Maximum Car Parking Capacity

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Building type category (for purpose of Tra04 issue)	
Building's indicative Accessibility Index (sourced from issue Tra01)	

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will BREEAM's maximum parking capacity criteria for the building type/Accessibility Index be met?			
Total BREEAM credits achieved	N/A		
Total contribution to overall building score	N/A		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

Tra 05 Travel Plan

No. of BREEAM credits available	1	Available contribution to overall score	1.11%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a transport plan based on site specific travel survey/assessment be developed?	No	1	0
Total BREEAM credits achieved	0		
Total contribution to overall building score	0.00%		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

WATER

Wat 01 Water Consumption

No. of BREEAM credits available	5	Available contribution to overall score	4.69%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define a target % improvement over baseline sanitary fittings
What is the target for % reduction in potable water consumption for sanitary use in the building?	40% - three credits

Please select the calculation procedure used

Standard approach data

Water Consumption from building micro-components	<input type="text"/>
Water demand met via greywater/rainwater sources	<input type="text"/>
Total net water consumption	<input type="text"/>
Improvement on baseline performance	<input type="text"/>

Key Performance Indicator - use of freshwater resource

Total net Water Consumption	<input type="text"/>
Default building occupancy	<input type="text"/>

Alternative approach data

Overall microcomponent performance level achieved	<input type="text"/>
<input type="text"/>	<input type="text"/>

Total BREEAM credits achieved	3
Total contribution to overall building score	2.81%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Wat 02 Water Monitoring

No. of BREEAM credits available	1	Available contribution to overall score	0.94%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will there be a water meter on the mains water supply to the building(s)?	Yes	1	1
Will metering/monitoring equipment be specified on the water supply to any relevant	Yes		
Will all specified water meters have a pulsed output?	Yes		
If the site/building has an existing BMS connection, will all pulsed meters be connected to the BMS?	N/A		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.94%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Wat 03 Water Leak Detection and Prevention

No. of BREEAM credits available	2	Available contribution to overall score	1.88%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a mains water leak detection system be installed on the building's mains water supply?	Yes	1	1
Will flow control devices be installed in each sanitary area/facility?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	1.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Wat 04 Water Efficient Equipment

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Has a meaningful reduction in unregulated water demand been achieved?			
Total BREEAM credits achieved	N/A		
Total contribution to overall building score	N/A		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

MATERIALS

Mat 01 Life Cycle Impacts

No. of BREEAM credits available	6	Available contribution to overall score	6.21%
No. of BREEAM innovation credits available	3	Minimum standards applicable	No

How do you wish to assess the number of BREEAM credits to be achieved for this issue? Define the number of Mat 01 credits achieved

Assessment Criteria	
Predicted total Mat01 credits achieved	3
Predicted total Mat01 points achieved	
Number of building elements assessed	
Green Guide exemplary level compliant?	No
Has IMPACT compliant software been used?	No
Total BREEAM credits achieved	3
Total contribution to overall building score	3.11%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Mat 02 Hard Landscaping and Boundary Protection

No. of BREEAM credits available	1	Available contribution to overall score	1.04%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will ≥80% of all external hard landscaping and boundary protection achieve a Green Guide A or A+ rating?	Yes	1	1
Total BREEAM credits achieved		1	
Total contribution to overall building score		1.04%	
Total BREEAM innovation credits achieved		N/A	
Minimum standard(s) level		N/A	

Comments/notes:

Mat 03 Responsible Sourcing

No. of BREEAM credits available	4	Available contribution to overall score	4.14%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant	Credits available	Credits achieved
All timber and timber based products are 'legally harvested and trader timber'	Yes		
Is there a documented sustainable procurement plan?	Yes	1	1
Percentage of available responsible sourcing of materials points achieved	18.00%	3	1
Please confirm the route used to assess Mat03	Route 2: Proportion of materials responsibly sourced		
Total BREEAM credits achieved		2	
Total contribution to overall building score		2.07%	
Total BREEAM innovation credits achieved		0	
Minimum standard(s) level	Outstanding level		

Comments/notes:

Mat 04 Insulation

No. of BREEAM credits available	1	Available contribution to overall score	1.04%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria		Credits available	Credits achieved	
What is the building's targeted insulating index?	2.50	1	1	Note: An insulation
Total BREEAM credits achieved	1			
Total contribution to overall building score	1.04%			
Total BREEAM innovation credits achieved	N/A			
Minimum standard(s) level	N/A			

Comments/notes:

Mat 05 Designing for durability and resilience

No. of BREEAM credits available	1	Available contribution to overall score	1.04%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will suitable durability/protection measures be specified and installed to vulnerable areas of the building?	Yes	1	1
Will suitable durability/protection measures be specified and installed to exposed parts of the building?	Yes		
Total BREEAM credits achieved	1		
Total contribution to overall building score	1.04%		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

Mat 06 Material efficiency

No. of BREEAM credits available	1	Available contribution to overall score	1.04%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will material efficiency measures be identified & implemented during all RIBA stages?	Yes	1	1
Total BREEAM credits achieved	1		
Total contribution to overall building score	1.04%		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

WASTE

Wst 01 Construction Waste Management

No. of BREEAM credits available	4	Available contribution to overall score	4.75%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits to be achieved for this issue? **Define a target number of BREEAM credits**

Select the number of BREEAM credits being targeted for issue Wst 01: BREEAM Wst01 Innovation credits:

Assessment Criteria	Compliant?
Construction resource management plan	<input type="checkbox"/>
Compliant Pre-demolition audit	<input type="checkbox"/>
Does the excavation waste meet the exemplary level requirements?	<input type="checkbox"/>

Key Performance Indicators - Construction Waste

Measure/units for the data being reported	
Non-hazardous construction waste (excluding demolition/excavation)	<input type="text"/>
Total non-hazardous construction waste generated	<input type="text"/>
Non-hazardous non-demolition const. waste diverted from landfill	<input type="text"/>
Total non-hazardous non-demolition const. waste diverted from landfill	<input type="text"/>
Total non-hazardous demolition waste generated	<input type="text"/>
Non-hazardous demolition waste diverted from landfill	<input type="text"/>
Total non-hazardous demolition waste to disposal	<input type="text"/>
Material for reuse	<input type="text"/>
Material for recycling	<input type="text"/>
Material for energy recovery	<input type="text"/>
Hazardous waste to disposal	<input type="text"/>

Note: At the pre-assessment stage this figure will be a target
 Note: At this stage this will be a target
 Note: At the pre-assessment stage this figure will be a target

Total BREEAM credits achieved	3
Total contribution to overall building score	3.56%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Wst 02 Recycled Aggregates

No. of BREEAM credits available	1	Available contribution to overall score	1.19%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Total
What is the target total % of high-grade aggregate that will be recycled/secondary aggregate?	100%

% of high-grade aggregate that is recycled/secondary aggregate - by application	
Structural frame	
Bitumen/hydraulically bound base, binder and surface courses	
Building foundations	
Concrete road surfaces	
Pipe bedding	
Granular fill and capping	

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Wst 03 Operational Waste

No. of BREEAM credits available	1	Available contribution to overall score	1.19%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will operational recyclable waste volumes be segregated and stored?	Yes	1	1
Will static waste compactor(s) or baler(s) be specified where appropriate?	Yes		
Will vessel(s) for composting suitable organic waste where appropriate?	N/A		

Total BREEAM credits achieved	1
Total contribution to overall building score	1.19%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Wst 04 Speculative Floor and Ceiling Finishes

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Total BREEAM credits achieved	N/A		
Total contribution to overall building score	N/A		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

Wst 05 Adaption to climate change

No. of BREEAM credits available	1	Available contribution to overall score	1.19%
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a climate change adaptation strategy appraisal for structural and fabric resilience be conducted by the end of Concept Design (RIBA Stage 2 or equivalent)? Will emexplary level criteria – Responding to adaptation to climate change be met?	No	1	0
Total BREEAM credits achieved	0		
Total contribution to overall building score	0.00%		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

Wst 06 Functional adaptability

No. of BREEAM credits available	1	Available contribution to overall score	1.19%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a building specific functional adaptation strategy appraisal be conducted by Concept Design (RIBA Stage 2 or equivalent) and will functional adaptation measures be implemented?	No	1	0
Total BREEAM credits achieved	0		
Total contribution to overall building score	0.00%		
Total BREEAM innovation credits achieved	N/A		
Minimum standard(s) level	N/A		

Comments/notes:

LAND USE & ECOLOGY

LE 01 Site Selection

No. of BREEAM credits available	2	Available contribution to overall score	2.20%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will at least 75% of the proposed development's footprint be located on previously occupied land?	Yes	1	1
Is the site deemed to be significantly contaminated?	No	1	0

Total BREEAM credits achieved	1
Total contribution to overall building score	1.10%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LE 02 Ecological Value of Site and Protection of Ecological Features

No. of BREEAM credits available	2	Available contribution to overall score	2.20%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

	Compliant?	Credits available	Credits achieved
Can the land within the construction zone be defined as 'land of low ecological value'?	Yes	1	1
Will all features of ecological value surrounding the construction zone/site boundary be protected?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	2.20%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LE 03 Mitigating Ecological Impact

No. of BREEAM credits available	2	Available contribution to overall score	2.20%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria

What is the likely change in ecological value as a result of the sites development?	≥0 species (i.e. no negative change)	Plant species richne
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Total BREEAM credits achieved	2
Total contribution to overall building score	2.20%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

LE 04 Enhancing Site Ecology

No. of BREEAM credits available	2	Available contribution to overall score	2.20%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a suitably qualified ecologist be appointed to report on enhancing and protecting site ecology?	No	2	0
Will the suitably qualified ecologist's general recommendations be implemented?			
What is the targeted/intended improvement in ecological value as a result of enhancement actions?			

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

LE 05 Long Term Impact on Biodiversity

No. of BREEAM credits available	2	Available contribution to overall score	2.20%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a Suitably Qualified Ecologist be appointed to monitor/minimise impacts of site activities on biodiversity?	No	2	0
Will a landscape and habitat management plan be produced covering at least the first five years after project completion in accordance with British Standards?			
Number of applicable measures to improve biodiversity confirmed by SQE:			
Number of applicable measures implemented:			

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

POLLUTION

Pol 01 Impact of Refrigerants

No. of BREEAM credits available	3	Available contribution to overall score	2.54%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

		Credits available	Credits achieved
Refrigerant containing systems installed in the assessed building?	Yes	2	2
Do all systems (with electric compressors) comply with the requirements of BS EN 378:2008 (parts 2 & 3) & where refrigeration systems containing ammonia are installed, the IoR Ammonia Refrigeration Systems Code of Practice?	Yes		
Global Warming Potential of the specified refrigerant(s) 10 or less?	Yes		
What is the target range Direct Effect Life Cycle CO ₂ eq. emissions for the system? Cooling/Heating capacity of the system	INA	kgCO ₂ eq/kW coolth capacity	
	INA	kW	
Will a refrigerant leak detection and containment system be specified/installed?	Yes	1	1

Total BREEAM credits achieved	3
Total contribution to overall building score	2.54%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 02 NO_x Emissions

No. of BREEAM credits available	3	Available contribution to overall score	0.85%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria

NO _x emission level - space heating	INA	mg/kWh
NO _x emission level - water heating	INA	mg/kWh
Does this building meet BREEAM's definition of a highly insulated building?	Yes	
Energy consumption: heating and hot water	INA	kWh/m ² /yr

Total BREEAM credits achieved	1
Total contribution to overall building score	0.28%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 03 Surface Water Run off

No. of BREEAM credits available	5	Available contribution to overall score	4.23%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
What is the actual/likely annual probability of flooding for the assessed site? Will a Flood Risk Assessment be undertaken?	Low	2	0
	No		
Will the site meet the BREEAM criteria for peak rate surface water run off?	Yes	1	1
Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge?	Yes	1	1
Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?	Yes	1	1

Total BREEAM credits achieved	3
Total contribution to overall building score	2.54%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 04 Reduction of Night Time Light Pollution

No. of BREEAM credits available	1	Available contribution to overall score	0.85%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the external lighting specification be designed to reduce light pollution?	No	1	0

Total BREEAM credits achieved	0
Total contribution to overall building score	0.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 05 Noise Attenuation

No. of BREEAM credits available	1	Available contribution to overall score	0.85%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant	Credits available	Credits achieved
Will there be noise-sensitive areas/buildings within 800m radius of the development?	Yes	1	1
Will a noise impact assessment be carried out and, if applicable, noise attenuation measures specified?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.85%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

INNOVATION

Inn 01 Innovation

No. of BREEAM innovation credits available	10	Available contribution to overall score	10.00%
		Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Man 03 Responsible construction practices	No	1	0
Man 05 Aftercare	N/A	1	N/A
Hea 01 Visual Comfort	No	1	0
Hea 02 Indoor Air Quality	N/A	N/A	N/A
Ene 01 Reduction of energy use and carbon emissions	No	5	0
Wat 01 Water Consumption	No	1	0
Mat01 Life Cycle Impacts	No	3	0
Mat03 Responsible Sourcing of Materials	No	1	0
Wst01 Construction Waste Management	No	1	0
Wst02 Recycled Aggregates	No	1	0
Wst 05 Adaption to climate change	N/A	N/A	N/A

Number of 'approved' innovation credits achieved?	0
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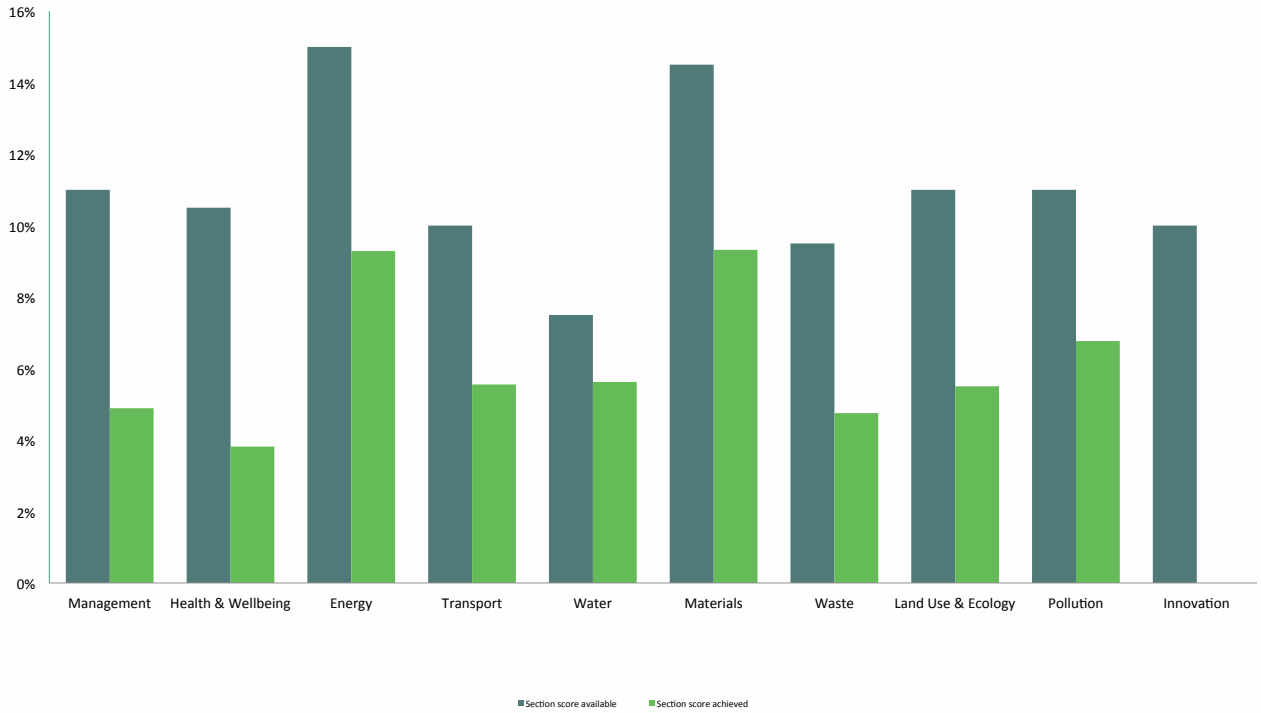
Total BREEAM innovation credits achieved	0
Total contribution to overall building score	0.00%
Minimum standard(s) level	N/A

Comments/notes:

Overall Building Performance

Building name	Alhambra Shopping Centre Development
Indicative BREEAM rating	Very Good
Indicative Total Score	55.5%
Min. standards level achieved	Excellent level

Building Performance by Environment Section



Environmental Section	No. credits available	Indicative no. credits Achieved	% credits achieved	Section Weighting	Indicative Section Score
Management	18	8	44.4%	11.0%	4.9%
Health & Wellbeing	11	4	36.4%	10.5%	3.8%
Energy	21	13	61.9%	15.0%	9.3%
Transport	9	5	55.6%	10.0%	5.6%
Water	8	6	75.0%	7.5%	5.6%
Materials	14	9	64.3%	14.5%	9.3%
Waste	8	4	50.0%	9.5%	4.8%
Land Use & Ecology	10	5	50.0%	11.0%	5.5%
Pollution	13	8	61.5%	11.0%	6.8%
Innovation	10	0	0.0%	10.0%	0.0%