Applied Energy

THE UNITE GROUP PLC

11-13 ST PANCRAS WAY

BREEAM PRE-ASSESSMENT

STUDENT ACCOMMODATION

Nov 2012
Project 0106
Revision _

"A Winning Team"
Building Services Consultancy

1.0 INTRODUCTION

This report has been commissioned by The Unite Group PLC to carry out a BREEAM (BRE Environmental Assessment Method) pre-assessment of the proposed development at 11-13 St Pancras Way using the BREEM 2008 Multi-Residential Assessment criteria.

1.1 Objective

The objective of this initial pre-assessment report is to identify at this early stage a route for achieving the aim of a minimum BREEAM rating of Very Good (>55%).

2.0 BREEAM

BREEAM (BRE Environmental Assessment Method) is the most widely used method for assessing the environmental impact of buildings. It sets standards for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance whether it is new or existing. Standard assessment versions exist for common building types. Less common building types can be assessed against tailored criteria under the Bespoke BREEAM version.

2.1 Rating benchmarks

The rating benchmarks for the 2008 version of BREEAM are outlined below for new buildings and major refurbishments.

BREEAM Rating	% Score
Unclassified	<30
Pass	≥30
Good	≥45
Very Good	≥55
Excellent	≥70
Outstanding*	≥85

* Please note: - there are additional requirements for achieving a BREEAM Outstanding rating.

2.2 Environmental Section Weightings

Once each BREEAM credit has been assessed the category percentage scores achieved are calculated where an environmental weighting is applied. The weighted category scores are then totalled to give a final BREEAM score which is used to determine the BREEAM rating. The environmental weightings are as follows in the table below.

2.3 Minimum Standards

In order to achieve particular ratings there are minimum standards that need to be met. These particular credits are shown in the table below.

BREEAM issue	BREEAM Rating /Minimum number of credits				
	PASS	GOOD	VERY GOOD	EXCELLENT	OUTSTANDING
Man 1 - Commissioning	1	1	1	1	2
Man 2 - Considerate Constructors				1	2
Man 4 - Building user guide				1	1
Hea 4 - High frequency lighting	1	1	1	1	1
Hea 12 - Microbial contamination	1	1	1	1	1
Ene 1 - Reduction of CO2 emissions				6	10
Ene 2 - Sub-metering of substantial energy uses			1	1	1
Ene 5 - Low or zero carbon technologies				1	1
Wat 1 - Water consumption		1	1	1	2
Wat 2 - Water meter		1	1	1	1
Wst 3 - Storage of recyclable waste				1	1
LE 4 - Mitigating ecological impact			1	1	1

3.0 BREEAM RATING

An initial review of the BREEAM credits against the proposed scheme has been undertaken with the design team. The table below summarises the likely credits to be awarded to achieve an Very Good rating. As the design develops, further work will be carried out with the design team to provide guidance on meeting the BREEAM criteria as well as targeting possible further credits that will enhance the sustainability of the design to ensure the target rating is achieved. It is likely that the final building will incorporate a mix of these credits as the design develops.

Category	Environmental Weighting	Achieved	Weighted Score
Management	12.00%	91.67%	11.00%
Health and Wellbeing	9.71%	47.06%	7.06%
Energy	12.39%	60.87%	11.57%
Transport	7.11%	88.88%	7.11%
Water	3.75%	50.00%	3.00%
Materials	6.62%	35.29%	4.41%
Waste	6.56%	75.00%	5.63%
Land Use & Ecology	7.00%	70.00%	7.00%
Pollution	7.27%	27.27%	2.73%
Innovation Credits	1.00%	10.00%	1.00%
TOTAL			**60.50%**

Table 1 – Pre-assessment BREEAM scoring

The table above shows that at this stage, the development will achieve a score of 60.50% which is a rating of Very Good.

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BREEAM Scheme:	BREEAM Multi-residential 2008
Building Name:	Unite TP
BREEAM Registration No.:	0
BREEAM Assessor:	Stuart Daniels
Licensed Assessor organisation:	Applied Energy

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

Stage of Assessment	BREEAM Score	BREEAM Rating
Interim - Design Stage	**60.50%**	**VERY GOOD**

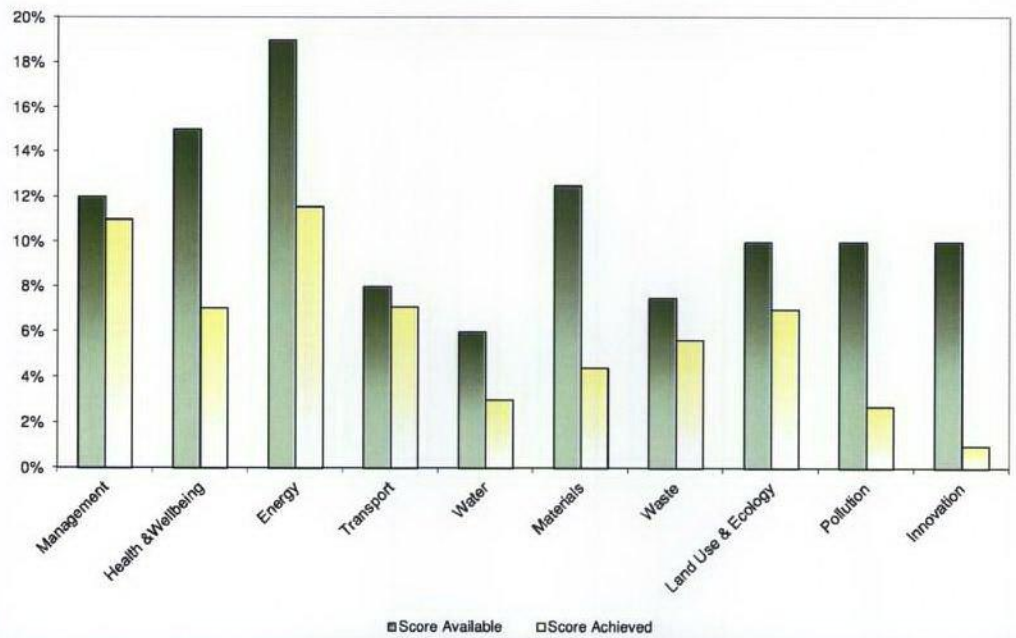
Minimum BREEAM Standards

Rating Level	Pass	Good	Very Good	Excellent	Outstanding
Minimum Standards Achieved	YES	YES	YES	YES	NO

Building Performance by Section

	Environmental weighting	Credits available	Credits achieved	% Achieved	Weighted Score
Management	12.00%	12.00	11.00	91.67%	11.00%
Health & Wellbeing	15.00%	17.00	8.00	47.06%	7.06%
Energy	19.00%	23.00	14.00	60.87%	11.57%
Transport	8.00%	9.00	8.00	88.89%	7.11%
Water	6.00%	8.00	4.00	50.00%	3.00%
Materials	12.50%	17.00	6.00	35.29%	4.41%
Waste	7.50%	8.00	6.00	75.00%	5.63%
Land Use & Ecology	10.00%	10.00	7.00	70.00%	7.00%
Pollution	10.00%	11.00	3.00	27.27%	2.73%
Innovation	10.00%	10.00	1.00	10.00%	1.00%
				Total BREEAM Score	**60.50%**

Assessed Building's BREEAM Performance by Section



breeam

BREEAM Scheme: BREEAM Multi-residential 2008
Building Name: Unite TP
BREEAM Registration No.: 0
BREEAM Assessor: Stuart Daniels

					Minimum BREEAM Standards				
					Pass	Good	Very Good	Excellent	Outstanding
				Achieved?	YES	YES	YES	YES	NO
Ref	Title	Multi-residential Criteria	Number of BREEAM credits available	Total BREEAM credits achieved	Minimum required credits by BREEAM issue and rating					Comments/Actions
Management										
Man 1	Commissioning	One credit where evidence provided demonstrates that an appropriate project team member has been appointed to monitor commissioning on behalf of the client to ensure commissioning will be carried out in line with current best practice. Two credits where, in addition to the above, evidence provided demonstrates that seasonal commissioning will be carried out during the first year of occupation, post construction (or post fit out).	2	2	1	1	1	1	2	
Man 2	Considerate Constructors	One credit where evidence provided demonstrates that there is a commitment to comply with best practice site management principles. Two credits where evidence provided demonstrates that there is a commitment to go beyond best practice site management principles.	2	2	-	-	-	1	2	
Man 3	Construction Site Impacts	One credit where evidence provided demonstrates that 2 or more of items a-g (listed below) are achieved. Two credits where evidence provided demonstrates that 4 or more of items a-g (listed below) are achieved. Three credits where evidence provided demonstrates that 6 or more of items a-g are achieved: a. Monitor, report and set targets for CO2 or energy arising from site activities b. Monitor, report and set targets for CO2 or energy arising from transport to and from site c. Monitor, report and set targets for water consumption arising from site activities d. Implement best practice policies in respect of air (dust) pollution arising from the site e. Implement best practice policies in respect of water (ground and surface) pollution occurring on the site f. Main contractor has an environmental materials policy, used for sourcing of construction materials to be utilised on site g. Main contractor operates an Environmental Management System. One additional credit where evidence provided demonstrates that at least 80% of site timber is responsibly sourced and 100% is legally sourced.	4	4	-	-	-	-	-	
Man 4	Building user guide	One credit where evidence provided demonstrates the provision of a simple guide that covers information relevant to the tenant/occupants and non-technical building manager on the operation and environmental performance of the building.	1	1	-	-	-	1	1	

Man 8	Consultation	One credit where evidence provided demonstrates that consultation has been, or is being, undertaken and feedback given to the local community and building users. In addition, advice should also have been sought from any relevant national and local history, archaeological bodies or military history groups regarding the heritage value of the building/site/surroundings. Two credits where, in addition to the above, evidence provided demonstrates that changes to the design and/or action has been taken as a result of the above consultation process. This should include the protection of any parts of the building (or site) having historic or heritage value in accordance with independent advice from the relevant body.	2	1	-	-	-	-	-		
Man 8	Security	One credit where evidence provided demonstrates that an Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police force has been consulted at the design stage and their recommendations incorporated into the design of the building and its parking facilities (if relevant).	1	1	-	-	-	-	-		

Health & Wellbeing

Hea 1	Daylighting	One credit where evidence provided demonstrates that at least 80% of floor area in each occupied space is adequately daylit.	1	0	-	-	-	-	-	
Hea 2	View Out	One credit where evidence provided demonstrates that all relevant building areas have an adequate view out.	1	1	-	-	-	-	-	
Hea 3	Glare Control	One credit where evidence provided demonstrates that an occupant-controlled shading system (e.g. internal or external blinds) is fitted in relevant building areas.	1	0	-	-	-	-	-	
Hea 4	High frequency lighting	One credit where evidence provided demonstrates that high frequency ballasts are installed on all fluorescent and compact fluorescent lamps.	1	1	1	1	1	1	1	
Hea 5	Internal and external lighting levels	One credit where evidence provided demonstrates that all internal and external lighting, where relevant, is specified in accordance with the appropriate maintained illuminance levels (in lux) recommended by CIBSE.	1	1	-	-	-	-	-	
Hea 7	Potential for natural ventilation	One credit where evidence provided demonstrates that fresh air is capable of being delivered to the occupied spaces of the building via a natural ventilation strategy, and there is sufficient user-control of the supply of fresh air.	1	0	-	-	-	-	-	
Hea 8	Indoor air quality	One credit where air intakes serving occupied areas avoid major sources of external pollution and recirculation of exhaust air.	1	0	-	-	-	-	-	
Hea 9	Volatile Organic Compounds	One credit where evidence provided demonstrates that the emissions of VOCs and other substances from key internal finishes and fittings comply with best practice levels.	1	0	-	-	-	-	-	
Hea 10	Thermal comfort	One credit where evidence provided demonstrates that thermal comfort levels in occupied spaces of the building are assessed at the design stage to evaluate appropriate servicing options, ensuring appropriate thermal comfort levels are achieved.	1	0	-	-	-	-	-	
Hea 11	Thermal zoning	One credit where evidence provided demonstrates that local occupant control is available for temperature adjustment in each occupied space to reflect differing user demands.	1	1	-	-	-	-	-	
Hea 12	Microbial contamination	One credit where evidence provided demonstrates that the risk of waterborne and airborne legionella contamination has been minimised.	1	1	1	1	1	1	1	
Hea 15	Outdoor Space	One credit where evidence demonstrates the provision of an adequate outdoor amenity space accessible for use by the building's occupants	1	1	-	-	-	-	-	
Hea 20	Home Office	One credit for the provision of a space and services which allows the occupants to set up a home office in a quiet room	1	1	-	-	-	-	-	

Hea 21	Sound Insulation	Up to four credits are available: One credit where evidence demonstrates that: - airborne sound insulation values are at least 3dB higher - impact sound insulation values are at least 3dB lower OR Three credits where evidence demonstrates that - airborne sound insulation values are at least 5dB higher - impact sound insulation values are at least 5dB lower OR Four credits where evidence demonstrates that - airborne sound insulation values are at least 8dB higher - impact sound insulation values are at least 8dB lower Than the performance standards set out in the Building Regulations for England and Wales, AD E (2003 edition, with ammendments on 2004) Default cases Four credits for detached dwellings Three credits for attached dwellings where separating walls or floors only occur between non-habitable rooms	4	1	-	-	-	-	-		

Energy

Ene 1	Reduction of CO2 Emissions	*Up to fifteen credits where evidence provided demonstrates an improvement in the energy efficiency of the building's fabric and services and therefore achieves lower building operational related CO2 emissions.*	15	8	-	-	-	6	10	
Ene 2	Sub-metering of Substantial Energy Uses	One credit where evidence provided demonstrates the provision of direct sub-metering of energy uses within the building.	1	1	-	-	1	1	1	
Ene 4	External Lighting	One credit where energy-efficient external lighting is specified and all light fittings are controlled for the presence of daylight.	1	1	-	-	-	-	-	
Ene 5	Low zero carbon technologies	One credit where evidence provided demonstrates that a feasibility study considering local (on-site and/or near site) low or zero carbon (LZC) technologies has been carried out and the results implemented. Two credits where evidence provided demonstrates that the first credit has been achieved and there is a 10% reduction in the building's CO2 emissions as a result of the installation of a feasible local LZC technology. Three credits where evidence provided demonstrates that the first credit has been achieved and there is a 15% reduction in the building's CO2 emissions as a result of the installation of a feasible local LZC technology. Or alternatively: A maximum of one credit where evidence provided demonstrates that a contract with an energy supplier is in place to provide sufficient electricity used within the assessed building/development to meet the above criteria from a 100% renewable energy source. (Note: a standard Green Tariff will not comply)	3	2	-	-	-	1	1	
Ene 15	Provision of Energy Efficient Equipment	*Up to two credits are available.* One credit where evidence provided demonstrates that all domestic scale fridges, freezes and fridge/freezers have an A+ rating under hte EU Energy Efficiency Labelling Scheme One additional credit available where evidence provided demonstrates that: - domestic washing machines and dishwashers have an A rating AND - domestic washer dryers and tumble dryers have a B rating under the EU Energy Efficiency Labelling Scheme AND commercial scale laundry facilities within the development will maximise opportunities for energy efficient operation Or alternatively: A maximum of one credit available where no (or not all) white goods are provided but information on the EU Energy Labelling Scheme of efficient white goods is provided to residential aspects of the building	2	2	-	-	-	-	-	
Ene 18	Drying space	One credit where evidence provided demonstrates that: **Self contained dwellings:** Space with posts and footings, or fixings capable of holding: - 1-2 bedrooms: 4m+ of drying line - 3+ bedrooms: 6m of drying line AND/OR **Individual bedrooms:** Space with posts and footings, or fixings capable of holding: - 2m+ of drying line per bedroom	1	0	-	-	-	-	-	

Transport

Tra 1	Provision of public transport	Up to three credits are awarded on a sliding scale based on the assessed buildings' accessibility to the public transport network.	3	3	-	-	-	-	-	
Tra 2	Proximity to amenities	Up to two credits are available: One credit where evidence provided demonstrates that the building is located within 500m of key accessible local amenities appropriate to the building type and its users One additional credit where evidence provided demonstrates that the building is located within 1000m of at least 5 additional accessible local amenities appropriate to the building type and its users	2	2	-	-	-	-	-	
Tra 3	Cyclist Facilities	One credit where evidence is provided to demonstrate that there is adequate provision of: a. covered, secure and well lit cycle racks for staff and residents b. secure storage for wheelchairs and electric buggies	1	0	-	-	-	-	-	
Tra 4	Pedestrian and cycle safety	One credit where evidence provided demonstrates that the site layout has been designed in accordance with best practice to ensure safe and adequate pedestrian and cycle access.	1	1	-	-	-	-	-	
Tra 6	Maximum car parking capacity	Up to two credits are available: Where evidence provided demonstrates that the number of parking spaces provided for the building has been limited First credit **For Sheltered housing and care homes:** Where evidence provided demonstrates that there is no more than one parking space provided for **every four** building users **For all other users:** Where evidence provided demonstrates that there is no more than one parking space provided for **every three** building users Second credit **For Sheltered housing and care homes:** Where evidence provided demonstrates that there is no more than one parking space provided for every five building users **For all other users:** Where evidence provided demonstrates that there is no more than one parking space provided for every four building users	2	2	-	-	-	-	-	

Water

Wat 1	Water Consumption	Four credits available where evidence provided demonstrates that the specification includes taps, urinals, WCs and showers that consumes less potable water in use than standard specifications for the same specifications for the same type of fittings.	4	1	-	1	1	1	2	
Wat 2	Water meter	One credit where evidence provided demonstrates that a water meter with a pulsed output will be installed on the mains supply to each buildingunit.	1	1	-	1	1	1	1	
Wat 3	Major leak detection	One credit where evidence provided demonstrates that a leak detection system is specified or installed on the building's water supply.	1	1	-	-	-	-	-	
Wat5	Water recycling	One credit where evidence provided demonstrates the specification of systems that collect, store and, where necessary treat, rainwater or greywater for WC and urinal flushing purposes.	1	0	-	-	-	-	-	

Wat 6	Irrigation systems	One credit where evidence provided demonstrates that a low-water irrigation strategy/system has been installed, or where planting and landscaping is irrigated via rainwater or reclaimed water.	1	1	-	-	-	-	-	
Materials											
Mat 1	Materials Specification (major building elements)	Up to six credits are available, determined by the Green Guide to Specification ratings for the major building elements.	6	3	-	-	-	-	-	
Mat 2	Hard landscaping and boundary protection	One credit where evidence provided demonstrates that at least 80% of the combined area of external hard landscaping and boundary protection specifications achieve an A or A+ rating, as defined by the Green Guide to Specification.	1	1	-	-	-	-	-	
Mat 3	Re-use of building façade	One credit is awarded where evidence provided demonstrates that at least 50% of the total façade (by area) is reused and at least 80% of the reused façade (by mass) comprises in-situ reused material.	1	0	-	-	-	-	-	
Mat 4	Re-use of building structure	One credit is awarded where evidence provided demonstrates that a design reuses at least 80% of an existing primary structure and for part refurbishment and part new build, the volume of the reused structure comprises at least 50% of the final structure's volume.	1	0	-	-	-	-	-	
Mat 5	Responsible sourcing of materials	Up to 3 credits are available where evidence provided demonstrates that 80% of the assessed materials in the following building elements are responsibly sourced: a. Structural Frame b. Ground floor c. Upper floors (including separating floors) d. Roof e. External walls f. Internal walls g. Foundation/substructure h. Staircase Additionally 100% of any timber must be legally sourced.	3	0	-	-	-	-	-	
Mat 6	Insulation	One credit where evidence provided demonstrates that thermal insulation products used in the building have a low embodied impact relative to their thermal properties, determined by the Green Guide to Specification ratings. One credit where evidence provided demonstrates that thermal insulation products used in the building have been responsibly sourced.	2	1	-	-	-	-	-	
Mat 7	Designing For Robustness	One credit where protection is given to vulnerable parts of the building such as areas exposed to high pedestrian traffic, vehicular and trolley movements.	1	1	-	-	-	-	-	
Mat 8	Responsible sourcing of materials - finishing elements	Up to 2 credits are available where evidence provided demonstrates 80% of the assessed materials in the following finishing elements are responsibly sourced: a. Stairs b. Windows c. External and internal doors d. Skirting e. Panelling f. Furniture g. Fascias h. Any other significant use Additionally 100% of any timber must be legally sourced.	2	0	-	-	-	-	-	
Waste											

Wst 1	Construction Site Waste Management	Up to three credits are available where evidence provided demonstrates that the amount of non-hazardous construction waste (m3/100m2 or tonnes/100m2) generated on site by the development is the same as or better than good or best practice levels. One credit where evidence provided demonstrates that a significant majority of non-hazardous construction waste generated by the development will be diverted from landfill and reused or recycled.	4	4	-	-	-	-	-	
Wst 2	Recycled aggregates	One credit where evidence provided demonstrates the significant use of recycled or secondary aggregates in 'high-grade' building aggregate uses.	1	0	-	-	-	-	-	
Wst 3	Recyclable waste storage	Up to two credits are available: One credit where storage space is provided for recyclable household waste in each: - Self contained dwelling/bedsit - Communal kitchen or other suitable communal room One additional credit where a central, dedicated space is provided for the storage of the building's recyclable waste streams	2	2	-	-	-	1	1	
Wst 5	Composting	One credit where individual home composting facilities are provided for individual dwellings/communal kitchens AND Where evidence provided demonstrates there is a vessel on site for composting food waste, and adequate storage for such waste generated by the building's users and operation OR Where space or access is limited, there is a dedicated space for compostable food waste to be stored prior to removal and composting at an alternative site.	1	0	-	-	-	-	-	
Land Use & Ecology											
LE1	Re-use of land	One credit where evidence provided demonstrates that the majority of the footprint of the proposed development falls within the boundary of previously developed land.	1	1	-	-	-	-	-	
LE2	Contaminated land	One credit where evidence provided demonstrates that the land used for the new development has, prior to development, been defined as contaminated and where adequate remedial steps have been taken to decontaminate the site prior to construction.	1	0	-	-	-	-	-	
LE3	Ecological value of site AND Protection of ecological features	One credit where evidence provided demonstrates that the construction zone is defined as land of low ecological value and all existing features of ecological value will be fully protected from damage during site preparation and construction works.	1	1	-	-	-	-	-	
LE4	Mitigating Ecological impact	Up to two credits are available: One credit where evidence provided demonstrates that the change in the site's existing ecological value, as a result of development, is minimal. Two credits where evidence provided demonstrates that there is no negative change in the site's existing ecological value as a result of development.	2	2	-	-	1	1	1	

LE5	Enhancing Site Ecology	Up to three credits are available: One credit where the design team (or client) has appointed a suitably qualified ecologist to advise and report on enhancing and protecting the ecological value of the site, and implemented the professional's recommendations for general enhancement and protection of site ecology. Two credits where, in addition to the above, there is a positive increase in the ecological value of the site of up to (but not including) 6 species. Three credits where, in addition to the above, evidence is provided to demonstrate a positive increase in the ecological value of the site of 6 species or greater.	3	2	-	-	-	-	-	
LE6	Long term impact on biodiversity	One credit where the client has committed to achieving the mandatory requirements listed below and at least two of the additional requirements. Two credits where the client has committed to achieving the mandatory requirements listed below and at least four of the additional requirements.	2	1	-	-	-	-	-	
Pollution											
Pol 1	Refrigerant GWP - Building services	One credit where evidence provided demonstrates the use of refrigerants with a global warming potential (GWP) of less than 5 or where there are no refrigerants specified for use in building services.	1	0	-	-	-	-	-	
Pol 2	Preventing refrigerant leaks	Up to two credits are available: One credit where evidence provided demonstrates that refrigerant leaks can be detected or where there are no refrigerants specified for the development. One credit where evidence provided demonstrates that the provision of automatic refrigerant pump down is made to a heat exchanger (or dedicated storage tanks) with isolation valves. Or where there are no refrigerants specified for the development.	2	2	-	-	-	-	-	
Pol 4	NOx emissions from heating source	Up to three credits are available: One credit where evidence provided demonstrates that the dry NOx emissions from delivered space heating energy are ≤100 mg/kWh (at 0% excess O2). Two credits where evidence provided demonstrates that the dry NOx emissions from delivered space heating energy are ≤70 mg/kWh (at 0% excess O2). Three credits where evidence provided demonstrates that the dry NOx emissions from delivered space heating energy are ≤40 mg/kWh (at 0% excess O2).	3	0	-	-	-	-	-	
Pol 5	Flood risk	Two credits where evidence provided demonstrates that the assessed development is located in a zone defined as having a low annual probability of flooding. One credit where evidence provided demonstrates that the assessed development is located in a zone defined as having a medium or high annual probability of flooding AND the ground level of the building, car parking and access is above the design flood level for the site's location. One further credit where evidence provided demonstrates that surface water run-off attenuation measures are specified to minimise the risk of localised flooding, resulting from a loss of flood storage on site due to development.	3	0	-	-	-	-	-	

Pol 6	Minimising watercourse pollution	One credit where evidence provided demonstrates that effective on site treatment such as Sustainable Drainage Systems (SUDs) or oil separators have been specified in areas that are or could be a source of watercourse pollution.	1	0	-	-	-	-	-		
Pol 7	Reduction of Night Time Light Pollution	One credit where evidence provided demonstrates that the external lighting design is in compliance with the guidance in the Institution of Lighting Engineers (ILE) Guidance notes for the reduction of obtrusive light, 2005.	1	1	-	-	-	-	-		

Innovation - Exemplary Level Criteria

Innovation	Man 2: Considerate Constructors	Where post construction, a Considerate Constructors Scheme certificate can be provided demonstrating that the site achieved CCS Code of Considerate Practice with a score of at least 38. OR Where post construction, the site has complied in full with the alternative, independently assessed scheme, and the alternative scheme addresses all the mandatory and optional items in Checklist A2.		1	0	
Innovation	Hea 1: Daylighting	At least 80% of the floor area (for the building spaces/room identified above in the standard requirements) has an average daylight factor of 3% in multi-storey buildings and 4% in single-storey buildings.		1	0	
Innovation	Ene 1: Reduction of CO2 emissions	One additional innovation credit can be awarded where evidence provided demonstrates the building is designed to be a carbon neutral building as defined by the NCM (i.e. in terms of building services energy demand), as follows: a. A new building achieves a CO2 index less than 0 on the benchmark scale. b. A refurbished building achieves a CO2 index equal to or less than 0 on the benchmark scale. Two additional innovation credits can be awarded where evidence provided demonstrates the building is designed to be a True zero carbon building (in terms of building services and operational energy demand).		2	0	
Innovation	Ene 5: Low or Zero Carbon Technologies	A local LZC energy technology has been installed in line with the recommendations of a compliant feasibility study and this method of supply results in a 20% reduction in the building's CO2 emissions.		1	0	
Innovation	Wat 2: Water Meter	Where sub meters are fitted to allow individual water-consuming plant or building areas to be monitored such as cooling towers, car washes, catering areas, etc. If the building does not have any major water consuming plant this exemplar credit is not available. Each sub meter has a pulsed output to enable connection to a Building Management System (BMS) for the monitoring of water consumption. In addition to the above, for sites with multiple departments e.g. large health centres or acute hospitals, separate pulsed sub meters are fitted on the supply to the following areas where present: a. Staff and public areas b. Clinical areas and wards c. Letting areas: On the water supply to each tenant unit d. Laundries e. Main production kitchen f. Hydrotherapy pools g. Laboratories h. CSSD/HSDU, pathology, pharmacy, mortuary and any other major process water user.		1	1	
Innovation	Materials Specification	One exemplary BREEAM credit can be awarded as follows: a. Where assessing four or more applicable building elements, the building achieves at least two points additional to the total points required to achieve maximum credits under the standard BREEAM requirements. b. Where assessing fewer than four applicable building elements, the building achieves at least one point additional to the total points required to achieve maximum credits under the standard BREEAM requirements.		1	0	
Innovation	Responsible Sourcing of Materials	Where, in addition to the standard BREEAM requirements, 95% of the applicable materials, comprised within the applicable building elements, have been responsibly sourced.		1	0	

Innovation	Wst 1 Construction Site Waste Management	Where non-hazardous construction waste generated by the building's development meets or exceeds the resource efficiency benchmark required to achieve three credits (as outlined in the guidance). Where at least 90% by weight (80% by volume) of non-hazardous construction waste and 95% of demolition waste by weight (85% by volume) (if applicable) generated by the build has been diverted from landfill and either: a. Reused on site (in-situ or for new applications) b. Reused on other sites c. Salvaged/reclaimed for reuse d. Returned to the supplier via a 'take-back' scheme e. Recovered from site by an approved waste management contractor and recycled. Where all key waste groups are identified for diversion from landfill at pre-construction stage SWMP.	1	0		
Innovation - BREEAM Accredited Professional or Suitably Qualified BREEAM Assessor						
Innovation	BREEAM Accredited Professional	Up to two credits are available for the comprehensive use of a BREEAM Accredited Professional (AP) throughout project work stages.	2	0		
Innovation - BRE Global Approved Innovation credits						
Innovation	Approved Innovations	Additional BREEAM Innovation Credits can be awarded where an application is made to, and approved by the BREEAM office using the Innovation Application Form and the assessor confirms compliance with the criteria set out within the Innovation Application Form.		0		

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