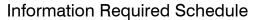
## **UCL Wilkins Lower Refectory**





Issue	Date	Description	Prepared	Checked	Note
1.0	07/06/2017	I.R.S.	Andy Coles	David Williams	

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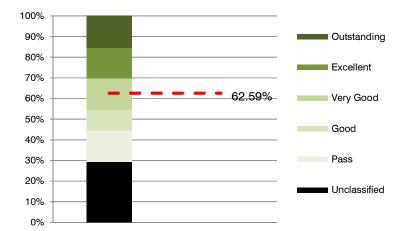


## Introduction

This report summarises the BREEAM 2008 Design Stage ssessment completed for the Wilkins Lower Refectory.

The Assessment has reviewed the current scheme against the BREEAM criteria and recorded the targeted ratings. The BREEAM rating bands and the current preassessment rating are shown bellow. An overall rating of **Very Good** has been achieved.

BREEAM rating	% score
Outstanding	85
Excellent	70
Very Good	55
Good	45
Pass	30
Unclassified	<30



In addition to requiring achievement of credit percentages to reach a particular banding, the assessment also includes 'minimum standards' or prerequisite credits. The following table highlights these requirements, and shows the level achieved on this pre-assessment (blue outline).

BREEAM issue	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
Man 9 - Publication of building information (BREEAM Education only)					1
Man 10 - Development as a learning resource (BREEAM Education only)					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

The level required to reach Ecellent has been achieved, thereby achieving Very Good as default.

The following pages outline the detail of each credit, along with the design stage evidence required to demonstrate compliance.

Credits outlined in **Red** are flagged up for particular attention during RIBA Stage A/B. This is generally because they are particularly onerous, or require action at this stage.

Those outlined in **Green** are additional credits that may be targeted to take the project to an Excellent level. They are however, not generally targeted for achievement at this stage.



BREEAM°_	Credit	Sub Credits	Total available Credits	Design Stage Target	Credit Achieved	Responsible design team	Evidence Required at Design Stage	Design Team Actions	Achievement certainty level		
±UCL	UCL-wide target	Stand	ard to be achieved		Headline issue?	Design team gatekeeper	Project design stage D C O	Design team comment	Certainty level	Information Provided	Evidence at Construction
Management (12	9/\								1 0 0		T
Man 1	Commissioning		2	2	2	MEP	Commissioning responsibilities schedule.	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).	3		Contractor
Man 2	Considerate Constructors		2	2	2	Prelims document UCL	Specification clause or formal letter confirming commitment to achieve a CCS score of at least 35 under CCS 2013.	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	3		Contractor
Man 3	Construction Site Impacts		4	4	4	Contractor	Specification clauses or formal letter confirming commitment to the BRE requirement.	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.	3		Contractor
Man 4	Building user guide		1	1	1	Prelims document, principle contractor	Written commitment to produce Building User Guides with details of the individual sections as listed in the BREEAM document.	and appropriate to the stakeholder(s) that will occupy the building.	2		Contractor
Man 5	Site Investigation		1	1	1	UCL	Commission a site investigation.	Second credit One credit where evidence provided demonstrates that the design team has carried out a detailed site investigation of the selected site.	3		
Man 6	Consultation		2	1	1	Architects/UCL	At early stage, provide a consultation schedule, listing prospective stakeholders, when they will be consulted, and when they will be provided with feedback.	One credit where evidence provided demonstrates that consultation has been, or is being, undertaken and feedback given to the local community and building users.  Higher Education Labporatory Building type or function present: A stakeholder engagement workshop has been undertaken at RIBA stage B. A design team meeting has been undertaken at RIBA stage C or equivalent with a focus on appropriate sizing, optimisation and integration of laboratory equipment and systems The results of the above activities have been summarised in a design intent document, which has been approved by all parties involved and formed the basis of subsequent quality control.  Two credits where, in addition to the above, evidence provided demonstrates that the consultation process is being, or has been, undertaken using an independent method such as DQI, DQM or School Works, facilitated by a third party.	3		



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Man 7	Shared Facilities		2	2	2	UCL		One credit where evidence provided demonstrates that shared facilities have been provided as a consequence of consultation feedback.  Two credits where, in addition to the above, evidence provided demonstrates that these facilities can be accessed without compromising the safety and security of the building and its occupants.	2		Contractor
Man 8	Security		1	0	0	Architect (BDA)		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). NEED TO CONFIRM ARRANGEMENTS RE UCL SECURITY	0		
Man 9	Publication of building information		1	1	1	Architects/UCL		One credit where evidence provided demonstrates that the design team are committed to publicising information about the environmenta performance of the new development via the internet, newsletters, site visits, presentations etc.			
Man 10	Development as a learning resource		1	1	1	Architects/UCL		One credit where evidence provided demonstrates that the proposed building AND/OR landscape design provides a learning resource that can be used to facilitate development of environmental issues for building users and visitors.	3		
Man 11	Ease of Maintenance	е	1	0	0	Architect/MEP		One credit where evidence provided demonstrates that specifications for the building and the building services/systems and landscaping have considered ease and efficiency of maintenance in line with best practice.	0		
Man 12	Life Cycle Costing		2	0	0	Cost Consultant		One credit where evidence provided demonstrates that a Life Cycle Cost (LCC) analysis based on the feasibility study proposals has been undertaken on the building design at a strategic and system level.	0		
	Total Score		20	15	15			Two credits where, in addition to the above, evidence provided	2		
Health and Wellt	neina (15%)								1 2 3		
Hea 1	Day Lighting		2	0	0	Architect (BDA)/Building Services		Up to two credits where evidence provided demonstrates that all occupied spaces are adequately daylit.	0		
Hea 2	View Out		1	1	1	Architect (BDA)		One credit where evidence provided demonstrates that all relevant building areas have an adequate view out.	2		
Hea 3	Glare Control		1	1	1	Architect (BDA)		One credit where evidence provided demonstrates that an occupant- controlled shading system (e.g. internal or external blinds) is fitted in relevant building areas.	3		
Hea 4	High frequency lighting		1	1	1	MEP		One credit where evidence provided demonstrates that high frequency ballasts are installed on all fluorescent and compact fluorescent lamps	3		Contractor
Hea 5	Internal and external	I	1	1	1	MEP		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.	3		Contractor
Hea 6	Lighting zones & controls		1	1	1	MEP		One credit where evidence provided demonstrates that, in all relevant building areas, lighting is appropriately zoned and occupant controllable with the option for commonly required lighting settings to be selected quickly and easily.	3		Contractor
Hea 7	Potential for natural ventilation		1	0	0	MEP		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.	0		
Hea 8	Indoor air quality		1	0	0	MEP		One credit where air intakes serving occupied areas avoid major sources of external pollution and recirculation of exhaust air.	0		



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Hea 9	Volatile Organic Compounds		1	0	0	Contractor side Architect/Prelims Document		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.	0		Contractor
Hea 10	Thermal comfort		1	1	1	MEP		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.	3		
Hea 11	Thermal zoning		1	1	1	MEP		One credit where evidence provided demonstrates that local occupant control is available for temperature adjustment in each occupied space to reflect differing user demands.	3		
Неа 12	Microbial contamination		1	1	1	MEP		One credit where evidence provided demonstrates that the risk of waterborne and airborne legionella contamination has been minimised.	3		Contractor
Hea 13	Acoustic Performance		2	2	2	Acoustic Engineer		Two credits where evidence provided demonstrates that all spaces in the building meet the appropiate standards required for indoor ambient noise levels and reverberation times.	2		Contractor
			15	10	10				1.92		
Energy (19%)									1 0 0		
Ene 1	Reduction of CO2 Emissions		15	9	9	Energy Consultant / MEP / Architect (Contractor side)		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.  NEEDS CLOSE MONITORING	2		
Ene 2	Sub-metering of Substantial Energy Uses		1	1	1	MEP		One credit where evidence provided demonstrates the provision of direct sub-metering of energy uses within the building.	3		Contractor
Ene 3	Sub-metering of high energy load Areas and Tenancy		1	1	1	MEP		One credit where evidence provided demonstrates sub-metering of energy consumption by tenancy/building function area is installed within the building.	3		Contractor
Ene 4	External Lighting		1	1	1	MEP		One credit where energy-efficient external lighting is specified and all light fittings are controlled for the presence of daylight.	3		Contractor
Ene 5	Low zero carbon technologies		3	1	1	Energy Consultant / MEP		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.	2		
								Two credits where evidence provided demonstrates that the first credit One credit where evidence provided demonstrates that the cold storage refrigeration plant components are on the ECA Energy Technology Product List.  One credit where evidence provided demonstrates that the cold food			
Ene 7	Cold storage equipment		3	0	0	MEP / UCL		storage plant is designed to minimise energy consumption in operation.  One credit where evidence provided demonstrates that opportunities for heat recovery, free cooling or thermal storage are identified and	0		Contractor
Ene 10	Free Cooling		1	1	1	MEP		taken advantage of.  One credit where evidence provided demonstrates the building incorporates a free cooling strategy that completely displaces the need for conventional mechanical cooling systems (excluding exceptional localised circumstances with small scale systems, for example server rooms) and the thermal comfort requirements of credit Hea 10 are achieved.	1		
	Total Score		25	14	14				2.00		
Transport (8%)	Provision of public		5	5	5	BREEAM Assessor		Up to five credits are awarded on a sliding scale based on the	3		
	transport  Proximity to							assessed buildings' accessibility to the public transport network.  One credit where evidence provided demonstrates that the building is			
Tra 2	amenities		1	1	1	Architect (BDA/UCL)		located within 500m of accessible local amenities appropriate to the building type and its users.	3		



BREEAM®_	Credit	Sub Credits	Total available Credits	Design Stage Target	Credit Achieved	Responsible design team	Evidence Required at Design Stage	Design Team Actions	Achievement certainty level		
<b>⁴UCL</b>	UCL-wide target	Standar	d to be achieved		Headline issue?	Design team gatekeeper	Project design stage D C O	Design team comment	Certainty level	Information Provided	Evidence at Construction
Tra 3	Cyclist Facilities		2	0	0	Architect (BDA)/UCL		One credit where evidence provided demonstrates that covered, secure and well-lit cycle storage facilities are provided for all building users.  Two credits where, in addition to the above, adequate changing facilities are provided for staff use.  NEED TO CHECK OTHER LOCAL OPERTUNITIES FOR CYCLE PARKING	0		
Tra 4	Pedestrian and cycle safety	9	1	1	1	Architect (LB)		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.	3		
Tra 5	Travel plan		1	1	1	UCL		One credit where evidence provided demonstrates that a travel plan specific to the building has been prepared, which encourages the reduction of user reliance on forms of travel that have the higest environmental impact.	3		
Tra 6	Maximum car parking capacity		2	2	2	Architect (LB)		One credit where evidence provided demonstrates no more than one parking space is provided for every fifteen building users.  Two credits where evidence provided demonstrates no more than one parking space is provided for every twetny building users.	3		
Tra 7	Travel information point		1	1	1	Architect (BDA)/UCL		One credit is available where evidence provided up-to-date information on transport routes and timetables.	3		Contractor
1	Total Score	1	13	11	11	1			2.57		

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<b>⁴UCL</b>	UCL-wide target	Standar	rd to be achieved		Headline issue?	Design team gatekeeper	Project design stage D C O	Design team comment	Certainty level	Information Provided	Evidence at Construction
Water (6%)									1 2 3		
Wat 1	Water Consumption		3	2	2	Architect (BDA)/MEP		Up to three credits where evidence provided demonstrates that the specification includes taps, urinals, WCs and showers that consume less potable water in use than standard specifications for the same type of fittings.	2		Contractor
Wat 2	Water meter		1	1	1	MEP		One credit where evidence provided demonstrates that a water meter with a pulsed output will be installed on the mains supply to each building/unit.	3		Contractor
Wat 3	Major leak detection		1	0	0	MEP		One credit where evidence provided demonstrates that a leak detection system is specified or installed on the building's water supply.	0		Contractor
Wat 4	Sanitary supply shut off		1	1	1	MEP		One credit where evidence provided demonstrates that proximity detection shut-off is provided to the water supply to all toilet areas.	3		Contractor
Wat5	Water recycling		1	0	0	MEP		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.	0		
	Total Score		7	4	4				1.6		
Materials (12.5%)									1 2 3		
Mat 1	Materials Specification (major building elements)		6	0	0	Contractor side Architect		Up to six credits are available, determined by the Green Guide to Specification ratings for the major building/finishing elements.	0		Contractor
Mat 2	Hard landscaping and boundary protection		1	1	1	Architect		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.	3		Contractor
Mat 3	Re-use of building façade		1	1	1	Architect		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.	3		
Mat 4	Re-use of building structure		1	1	1	Architect / Structures		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	3		
Mat 5	Responsible sourcing of materials		3	0	0	QS - Prelims Document		comprises at least 50% of the final structure's volume. 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	0		Contractor
Mat 6	Insulation		2	2	2	Contractor side Architect/MEP		Additionally 100% of any timber must be leaally sourced. 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.	3		Contractor
Mat 7	Designing For Robustness		1	1	1	Contractor side Architect		One credit where protection is given to vulnerable parts of the building such as areas exposed to high pedestrian traffic, vehicular and trolley movements.	3		Contractor
	Total Score		15	6	6				2.142857143		
Waste (7.5%)									1 2 3		



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Wst 1	Construction Site Waste Management		4	2	2	QS - Prelims Document		Up to three credits are available where evidence provided demonstrates that the amount of non-hazardous construction waste (m3/100m2 or tonnes100m2) 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.	2		Contractor
Wst 2	Recycled aggregates		1	0	0	QS - Prelims Document / Structures		One credit where evidence provided demonstrates the significant use of recycled or secondary aggregates in 'high-grade' building aggregate uses.	0		
Wst 3	Recyclable waste storage		1	1	1	Architect (BDA)/UCL		One credit where a central, dedicated space is provided for the storage of the building's recyclable waste streams.	3		Contractor
Wst 4	Compactor / Baler		1	0	0	QS - Prelims Document / Structures		One credit where evidence provided demonstrates that either an industrial waste compactor or baler is installed for compacting/baling waste materials generated on site and a. A water outlet is provided for cleaning b. The development achieves the BREEAM credit for storage of recyclable waste.	0		
Wst 5	Composting		1	1	1	UCL		One credit w here 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	3		
			8	4	4			alternative site.	1.60		
Land Use and Ed	cology (10%)							One credit where evidence provided demonstrates that the majority or	1 2 3		
LE1	Re-use of land		1	1	1	Architect (BDA)/UCL		the footprint of the proposed development falls within the boundary of previously developed land.	3		
LE2	Contaminated land		1	0	0	Architect		One credit is awarded 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.	0		
LE3	Ecological value of site AND Protection of ecological features		1	1	1	Ecologist		One credit is awarded 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.	3		
LE4	Mitigating Ecologica impact	1	2	2	2	Ecologist		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.	3		
LE5	Enhancing Site Ecology		3	0	0	Ecologist		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.			



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±UCL	UCL-wide target	Standa	rd to be achieved		Headline issue?	Design team gatekeeper	Project design stage D C O	- Design team comment	Certainty level	Information Provided	Evidence at Construction
LE6	Long term impact or biodiversity		2	0	0	Ecologist / Contractor		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.	0		Contractor
	Total Score		10	4	4				1.50		
Pollution (10%)	1							T.	1 2 3		
Pol 1	Refrigerant GWP - Building services		1	0	0	MEP		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.	0		
Pol 2	Preventing refrigerant leaks		1	1	1	MEP		One credit where evidence provided demonstrates that refrigerant leaks can be detected AND 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	1		Contractor
Pol 3	Refrigerant GWP - Cold storage		1	0	0	MEP		One credit where evidence provided demonstrates the use of refrigerants within cold storage systems with a global warming potential (GWP) of less than 5.	0		
Pol 4	NOx emissions from heating source		3	0	0	MEP		One credit where evidence provided demonstrates that the maximum dry NOx emissions from delivered space heating energy are ≤100 mg/kWh (at 0% excess O2).  Two credits where evidence provided demonstrates that the maximum dry NOx emissions from delivered space heating energy are ≤70 mg/kWh (at 0% excess O2).  Three credits where evidence provided demonstrates that the maximum dry NOx emissions from delivered space heating energy are ≤40 mg/kWh (at 0% excess O2) and emissions from delivered water heating energy are 100 mg/kWh or less (at 0% excess O2).	0		Contractor
Pol 5	Flood risk		3	2	2	Structural Engineer		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		Contractor
Pol 6	Minimising watercourse pollution		1	1	1	Structures (below ground)		One credit here 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.	3		Contractor
Pol 7	Reduction of Night Time Light Pollution		1	1	1	MEP		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.	3		Contractor





	0	On the Orientities	Total available	Design Stage	0	Responsible design	Evidence Required at Design	Design Term Artists	Achievement		
BREEAM°_	Credit	Sub Credits	Credits	Target	Credit Achieved	team	Stage	Design Team Actions	certainty level		
						Design team	Project design stage		Certainty level		Evidence at
±UCL_	UCL-wide target	Standar	d to be achieved		Headline issue?		D C O	Design team comment	1 2 3	Information Provided	Construction
								One credit where evidence provided demonstrates that new sources on noise from the development do not give rise to the likelihood of			
Pol 8	Noise Attenuation		1	1	1	Acoustics Engineer		complaints from existing noise-sensitive premises and amenity or	2		
								wildlife areas that are within the locality of the site.			
	Total Score		12	6	6				1.50		
Total Score			125	74	74						
Innovation Credit	s								1 2 3		
								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 40.			
								Source of Consideration Flagsing William Course of all reads 10.			
	Man 2: Considerate		1	2	2	Prelims Document		OR	1		
	Constructors			_	_			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.			
Innovation	Hea 1: Daylighting		1	0	0	(BDA) Architect		At least 80% of the floor area (for the building spaces/room identified above in the standard requirements) has an average daylight factor of			
IIIIIOVALIOII	Tiea 1. Daylighting		'		0	(DDA) Architect		3% in multi-storey buildings and 4% in single-storey buildings.			
								One additional innovation credit can be awarded where evidence			
								provided demonstrates the building is designed to be a carbon neutra	al .		
								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	c la constant		
								scale.			
	Ene 1: Reduction of		2	0	0	Energy Consultant /		b. A refurbished building achieves a CO2 index equal to or less than 0	0		
	CO2 emissions					MEP		on the benchmark scale.			
								Delicilitati 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).			
	Ene 5: Low or Zero					Energy Consultant /		A local LZC energy technology has been installed in line with the			
	Carbon		1	0	0	MEP		recommendations of a compliant feasibility study and this method of	0		
	Technologies							supply results in a 20% reduction in the building's CO2 emissions.  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 other of the state of the			
								In addition to the above, for sites with multiple departments e.g. large health centres or acute hospitals, separate pulsed sub meters are fitte	al Control		
Innovation	Wat 2: Water Meter		1	1	1	MEP		on the supply to the following areas where present:	1		
								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 q. Laboratories			
								g. Laboratories h. CSSD/HSDU, pathology, pharmacy, mortuary and any other major			
								process water user.			



BREEAM®_	Credit	Sub Credits	Total available Credits	Design Stage Target	Credit Achieved	Responsible design team	Evidence Required at Design Stage	Design Team Actions	Achievement certainty level		
±UCL	UCL-wide target	Standar	d to be achieved		Headline issue?	Design team gatekeeper	Project design stage D C O	Design team comment	Certainty level	Information Provided	Evidence at Construction
Innovation	Materials Specification		1	0	0	Contractor		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.	0		
Innovation	Responsible Sourcing of Materials		1	0	0	Contractor		Where, in addition to the standard BREEAM requirements, 95% of the applicable materials, comprised within the applicable building elements, have been responsibly sourced.	0		
Innovation	Wst 1 Construction Site Waste Management		1	0	0	Contractor		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.	0		
Innovation	BREEAM Accredited Professional		2	2	2	BREEAM Assessor		Up to two credits are available for the comprehensive use of a BREEAM Accredited Professional (AP) throughout project work stages.	1		
Innovation	Approved Innovations					BREEAM Assessor		Additional BREEAM Innovation Credits can be awareded 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.	1		
Total Score			10	5	5				0.4		







## Scoring Summary and Result

	No. credits available	No. credits Achieved	Percentage of credits achieved	Section Weighting	Contribution targeted towards total score	No. credits Achieved (Live Score)	Contribution Achieved total score (Live Score)
Management	20	15	75.00%	12.0%	9.00%	15	9.00%
Health & Wellbeing	15	10	66.67%	15.0%	10.00%	10	10.00%
Energy	25	14	56.00%	19.0%	10.64%	14	10.64%
Transport	13	11	84.62%	8.0%	6.77%	11	6.77%
Water	7	4	57.14%	6.0%	3.43%	4	3.43%
Materials	15	6	40.00%	12.5%	5.00%	6	5.00%
Waste	8	4	50.00%	7.5%	3.75%	4	3.75%
Land Use & Ecology	10	4	40.00%	10.0%	4.00%	4	4.00%
Pollution	12	6	50.00%	10.0%	5.00%	6	5.00%
Innovation	10	5	50.00%	10.0%	5.00%	5	5.00%
Total Score					62.59%		62.59%

