

191 Kings Road – 5th Floor Extension

Pre-Assessment Tracker Document

Prepared for:

Bagri Foundation

Kings Road - Proposed Fifth Floor Extension BREEAM NEW CONSTRUCTION 2014 (Simple Buildings)- Multi Residential Accomodation								eb7 Ltd, Studio 1B, 63 Webber Street, London SE1 0QW www.eb7.co.uk info@eb7.co.uk 020 7148 6290			
Target : Very Good 57.10											
Ref	Description	Compliance Requirements	Assessment Criteria No.	Definite	Possible	Not Targeting	Max Credits Available	Pre-assessment Stage 27.06.17	Action/Responsible person	Tracker	
Man 1 - Project brief and Design	Stakeholder consultation-project team (1 credit)	Prior to completion of the Concept Design (RIBA Stage 2 or equivalent), the client, building occupier, the design team and principal contarctor have met to identify and define their roles, responsibilities and contributions for each of the key phases-of project delivery and how the outcomes of the consultation process have influenced or changed the Initial Project brief	1 to 3	1			2	1. Provide list of stakeholders consulted 2. agenda/minutes from the consultation meetings 3. Documentation demonstrating consultation feedback and subsequent actions Consultation plan setting out the consultation process and scope of consultation	Project Team		
	Third party consultation (1 credit)	Prior to completion of the Concept Design stage, all relevant third party stakeholders have been consulted by the design team and this covers the minimum consultation content and how the outcomes of the consultation exercise have influenced or changed the Initial Project Brief and Concept Design. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), consultation feedback has been given to, and received by, all relevant parties.	4 to 6	1				Relevant Third party stakeholders have been consulted by the design team and covers a miminum consultation content	Project Team		
Man 2- Life cycle cost and service life Planning	Capital cost reporting (1 credit)	Report the capital cost for the building in pounds per square metre (Ek/ m2)	5	1			1	The developer will also publish data on project costing	Contractor		
Man 3 - Responsible Construction Practices		Pre-requisite-All Timber and timber based products to be legally sourced in line with FCS/PEFC including Site Timber	1			Y	4	Ensure all Timber and timber based products will to be legally sourced in line with FCS/PEFC including Site Timber	Contractor		
	Environmental management - EMS System (1 credit)	The principal contractor operates an environmental management system (EMS) covering their main operations. The EMS must be either: a.third party certified, to ISO 14001/EMAS or equivalent standard; or b.have a structure that is in compliance with BS 8555:2003 and has reached phase four of the implementation stage The principal contractor implements best practice pollution prevention policies and procedures on-site in accordance with Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG61.	2,3		1			Have ISO 14001 accreditation in place	Contractor		
	Considerate Construction (up to 2 credits)	Where the principal contractor has used a ‘compliant’ organisational, local or national considerate construction scheme and their performance against the scheme has been confirmed by independent assessment and verification.The BREEAM credits can be awarded as follows: a. One credit where the contractor achieves ‘compliance’ with the criteria of a compliant scheme. b. Two credits where the contractor significantly exceeds ‘compliance’	7a,b	1	1			Join the Considerate Constructors Scheme and achieve a minimum score of 25 (with a score of atleast 7 in each of the five sections)	Contractor		
	Monitoring of construction-site impacts - Utility Consumption (2 credits)	Requires monitoring, recording and reporting energy use (kWh or litres, water consumption(m3) where measured) resulting from all on-site construction processes (and dedicated off-site monitoring) throughout the build programme	8 to 12	1				Undertake the monitoring and reporting on the use of energy and water on site	Contractor		
Man 4 - Commissoing and Handover	Commissioning testing schedule and Responsibilities (1 credit)	A schedule of commissioning and testing that identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and testing and inspecting building fabric in accordance with, current Building Regulations, BSRIA1 and CIBSE2 guidelines and/or other appropriate standards The principal contractor appoints an appropriate team member to monitor and programme pre-commissioning and accounts for the commissioning and testing programme, responsibilities and criteria within their budget and main programme of work	2 to 4	1			2	The developer is to schedule commissioning including optimal timescales and appropriate testing and commissioning of all building services systems in line with best practice	Contractor		
	Handover (1 credit)	A Building User Guide (BUG) is developed prior to handover for distribution to the The building’s staff (or where relevant residents) The non-technical facilities management team/building manager Other building users, e.g. visitors/community users	10,11	1				The developer will also provide a non-technical Building User Guide and user/operator training timed appropriately around handover and proposed occupation.	Contractor		

Hea 2 - Indoor Air Quality	Ventilation (1 credit)	Design ventilation pathways to minimise the build-up of air pollutants in the building, as follows: a. In air conditioned and mixed mode buildings/spaces: i. The building's air intakes and exhausts are over 10m apart and intakes are over 20m from sources of external pollution. OR ii.The location of the building's air intakes and exhausts, in relation to each other and external sources of pollution, is designed in accordance with BS EN 13779:20071 b. In naturally ventilated buildings/spaces: openable windows/ventilators are over 10m from sources of external pollution Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 13779:2007 Annex Areas of the building subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO2) or air quality sensors specified In mechanically ventilated buildings/spaces: sensor(s) are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space	2,3	1			3	The ventilation strategy will be fully compliant with Part F and BREEAM requirements	M&E Consultant		
	(VOC) emission levels-products (1 credit)	All decorative paints and varnishes specified meet the criteria in Table - 18 At least five of the seven remaining product categories listed in Table - 18 meet the testing requirements and emission levels criteria for volatile organic compound (VOC) emissions (listed in the table	6,7			1		Issue not targeted	Contractor		
	Adaptability - potential for natural ventilation (1 credit)	i. Room depths are designed in accordance with CIBSE AM10 (section 2.4) to ensure effectiveness of any natural ventilation system. The openable window area in each occupied space is equivalent to 5% of the gross internal floor area of that room/floor plate. OR ii. The design demonstrates that the natural ventilation strategy provides adequate cross flow of air to maintain the required thermal comfort conditions and ventilation rates. This is demonstrated using ventilation design tool types recommended by CIBSE AM107	13, 14			1		Issue not targeted	M&E Consultant		
Hea 03 - Safe containment in Laboratories	Containment Laboratory containment devices and containment areas (1 credit)	Not Applicable				0	0	Issue not Applicable			
	Buildings with containment level 2 and 3 laboratory facilities (1 credit)					0					
Hea 04 - Thermal Comfort	Thermal Modelling (1 credit)	Thermal modelling has been carried out using software in accordance with CIBSE AM111 Building Energy and Environmental Modelling For air conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design2, Table 1.5; or other appropriate industry standard For air conditioned buildings, the PMV and PPD indices based on the above modelling are reported.	1 to 4	1			3	Full thermal dynamic modelling to be undertaken	M&E Consultant		
	Adaptability for a projected climate change scenario (1 credit)	Thermal Modelling credit is achieved The thermal modelling demonstrates that the relevant requirements set out in criteria above are achieved for a projected climate change environment For air conditioned buildings, the PMV and PPD indices based on the above modelling are reported.	5 to 8			1		systems designed in line with CIBSE AM11 including allowance for climate change Requires use of dynamic thermal modelling (TAS or IES)			
	Thermal zoning and controls (1 credit)	Thermal Modelling credit is achieved The thermal modelling analysis has informed the temperature control strategy for the building and its users. The strategy for the proposed heating and cooling should tackle the following issues: Compliance can be demonstrated where zoning allows separate occupant control (within the occupied space) of each perimeter area (i.e. within 7m of each external wall) and the central zone (i.e. over 7m from the external walls).	10 to 12	1				Appropriate levels of thermal zoning are also to be included in the HVAC design solution			
Hea 05 - Acoustic Performance	Sound insulation and internal ambient noise levels (2 credits)	Not Applicable					0	0	Issue not Applicable	Suitably Qualified Acoustician	
	Reverberation times (1 credit)						0				

	Hea 06 - Safety & Security	Safe Access (1 credit)	Where external site areas form part of the assessed development -Dedicated cycle paths provide direct access from the site entrance(s) to any cycle storage provided -Footpaths on-site provide direct access from the site entrance(s) to the building entrance(s) and connect to public footpaths off-site (where existing), - Where provided, drop-off areas are designed off/adjoining to the access road and provide direct access to pedestrian footpaths. - Dedicated pedestrian crossings are provided where pedestrian routes cross vehicle access routes - The lighting for access roads, pedestrian routes and cycle lanes is compliant with the external lighting criteria defined in Hea 01 Visual comfort, i.e. in accordance with BS 5489-1:20131 Lighting of roads and public amenity areas. For vehicle access and drop-off areas where applicable Delivery areas are not directly accessed through general parking areas and do not cross or share pedestrian and cyclist routes and other outside amenity areas accessible to building users and general public. There is a dedicated parking/waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking. There is a dedicated space for the storage of refuse skips and pallets away from the delivery vehicle manoeuvring area and staff/visitor car parking	1 to 6		1		2	The project affords separate access for pedestrians and cyclists and has no vehicle movements on site. Initial scheme drawing indicate tht this is achievable	Architect	
		Security of site and building (1 credit)	A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent) and proposes a set of recommendations or solutions that would be require to be implemented	11 to 13		1			The developers are also actively seeking the Secured by Design award for the project	Security Consultant	
	SECTION CREDIT SCORE										
					4.615	3.462	5.769	13			
Energy	Ene 01 - Reduction of CO2 Emissions	Energy Performance (upto 12 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. Calculate an Energy Performance Ratio for New Constructions (EPR NC). Compare the EPR NC achieved with the benchmarks and award the corresponding number of BREEAM credits	1	2		10	12	Initial BRUKL suggests 2 credits achievable	EB7	
	Ene 02 - energy Monitoring Minimum Standards-First Sub-metering credit	Sub-metering of major energy consuming systems (1 credit)	The following major energy consuming systems (where present) are monitored using either a Building Energy Management System (BEMS) or separate accessible energy sub-meters with a pulsed output to enable future connection to a BEMS that enable at least 90% of the estimated annual energy consumption of each fuel to various end-use categories: - Space Heating; - Domestic Hot Water; - Humidification; - Cooling; - Fans (major); - Lighting; - Small Power (lighting and small power can be on the same sub-meter where supplies are taken at each floor/department); and - Other major energy-consuming items where appropriate The end energy consuming use is identifiable to the building user through labelling or data outputs.	1,2	1			1	Mandatory - energy meters for Energy, Heating, hot water, lighting and small power (floor by floor), lifts will be installed	M&E Consultant	
		Sub-metering of high energy load and tenancy areas (1 credit)	Where evidence provided demonstrates that an accessible BEMS or accessible sub-meters will be provided covering the energy supply to all tenanted, or in the case of single occupancy buildings, relevant function-areas or departments within the building/unit.	3			0		Issue not Applicable		
	Ene 03 - External lighting	External Lighting (1 credit)	The average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt. All external light fittings are automatically controlled for prevention of operation during daylight hours and presence detection in areas of intermittent pedestrian traffic	2,3	1			1	External lighting to be low energy, meet minimum colour rendering and controlled by time switch or daylight control	M&E Consultant	
		Passive design analysis (1 credit)	The first credit within issue Hea 04 Thermal comfort has been achieved The building uses passive design measures to reduce the total heating, cooling, mechanical ventilation and lighting loads and energy consumption in line with the findings of the passive design analysis and the analysis demonstrates a meaningful reduction in the total energy demand	1 to 3		1			It is assumed that all credits under Hea 04 will be achieved Design Thereafter, the design team have considered appropriate passive design strategies that will be incorporated into the final design	Energy Consultant	

Ene 04 - Low Carbon Design	Free Cooling (1 credit)	The passive design analysis credit is achieved The building uses ANY of the free cooling strategies listed to reduce the cooling demand 1. Night time cooling (which could include the use of a high exposed thermal mass) 2. Ground coupled air cooling 3. Displacement ventilation (not linked to any active cooling system) 4. Ground water cooling 5. Surface water cooling 6. Evaporative cooling, direct or indirect 7. Desiccant dehumidification and evaporative cooling, using waste heat 8. Absorption cooling, using waste heat 9. The building does not require any significant form of active cooling or mechanical ventilation (i.e. naturally ventilated).	4 to 6			1	3	Issue not targeted		
	Low or zero carbon technologies (1 credit)	A local LZC technology/technologies has/have been specified for the building/development in line with the recommendations of this feasibility study carried by the energy specialist by the completion of the Concept Design stage (RIBA Stage 2 or equivalent) and this method of supply results in a meaningful reduction in regulated carbon dioxide (CO2) emissions (see compliance)				1		An LZC feasibility study has also been commissioned and the appropriate technology will be utilised to further reduce carbon emissions Issue kept in reserve	Energy Consultant	
Ene 05 - Energy Efficient Cold Storage	Refrigeration Energy Consumption (1 credit)	Not Applicable				0	0	Issue not Applicable		
	Indirect Greenhouse gas emissions (1 credit)					0				
Ene 06- Energy Efficient Transportation Systems	Energy consumption (1 credit)	Where lifts, escalators and/or moving walks (transportation types) are specified: An analysis of the transportation demand and usage patterns for the building has been carried out to determine the optimum number and size of lifts, escalators and/or moving walks. The energy consumption has been calculated in accordance with BS EN ISO 25745 Energy performance of lifts, escalators and moving walks.		1			2	The developers will undertake an analysis of different lift systems to identify the most energy efficient alternative.		
	Energy efficient feature - (2 credits)	For each lift, the following three energy efficient features are specified: a. The lifts operate in a standby condition during off-peak periods. b. The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 55 lamp lumens/circuit Watt. c. The lift uses a drive controller capable of variable speed, variable-voltage, and variable frequency (VVVF) control of the drive motor.		1				The selected lift system will also incorporate energy efficient systems such as variable speed drives and low energy lighting		
Ene 07 - Energy Efficient Laboratory Systems	Pre-requisite	Not Applicable				0	0	Issue not Applicable		
	Design Specification (1 credit)					0				
Ene 08 - Energy Efficient Equipment	Energy Efficient Equipment (2 credits)	Identify the building's unregulated energy consuming loads and systems/ or processes and estimate their contribution to the total annual unregulated energy consumption of the building Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building.	1 to 3	2			2	All white goods within the units have EU Energy Efficiency Labelling Scheme rating	M&E Consultant	
Ene 09 - Drying Space	Drying Space (1 credit)	For self-contained dwellings: an adequate internal or external space with posts and footings, or fixings capable of holding: a. One to two bedrooms: 4m+ of drying line b. Three or more bedrooms: 6m+ of drying line. OR 2. Individual bedrooms: an adequate internal or external space with posts and footings, or fixings capable of holding: a. Two metres or more of drying line per bedroom for developments with up to 30 individual bedrooms; plus b. One metre of additional drying line for each bedroom over the 30 individual bedroom threshold.			1		1	Provide adequate internal or external space with posts and footings, or fixings capable of holding: a. One to two bedrooms: 4m+ of drying line b. Three or more bedrooms: 6m+ of drying line.		
SECTION CREDIT SCORE				5.455	2.045	7.500	22			

Waste	Mat 06 - Material Efficiency	Material Efficiency (1 credit)	Opportunities have been identified, and appropriate measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance and end of life , The above is carried out by the design/construction team in consultation with the relevant parties at each of the following RIBA stages: a. Preparation and Brief b. Concept Design c. Developed Design d. Technical Design e. Construction.	1,2			1	1	Issue not targeted	Architect	
	SECTION CREDIT SCORE										
					7.714	0.000	5.786	14			
	Wst 01 - Construction Waste Management	Construction resource efficiency (1 credit) RMP measurements and reporting - Simple Buildings (2 credits including first credit)	Where projects have a Resource Management Plan (RMP) with the aim of minimising and monitoring waste. Where criterion above has been met. The developed and implemented waste management procedures recorded in the RMP ensure that the following are measured and reported on : a. Construction waste generated by the project in m3 or tonnes per 100m2 gross internal floor area (excluding demolition and excavation waste). b.The proportion of this construction waste diverted from landfill, i.e. reused/recycled/recovered.	9 to 11	3			4	Compliant SWMP required and < 3.2t of construction waste per 100sqm of floor area generated A pre-demolition audit of the existing structure will also be required, identifying recyclable waste streams if applicable	Contractor	
Diversion of resources from landfill (1 credit)		The following percentages of non-hazardous construction (on-site and off-site manufacture/fabrication in a dedicated facility), demolition and excavation waste (where applicable) generated by the project have been diverted from landfill:	4,5		1				80% of waste to be diverted from landfill	Contractor	
Wst 02 - Recycled Aggregates	Recycled Aggregates (1 credit)	Where evidence provided demonstrates the significant use (>25% by weight or volume) of recycled or secondary aggregates in 'high-grade' building aggregate uses. To contribute to the total amount, the percentage of high-grade aggregate specified per application (where present) that is recycled and/or secondary aggregate, must meet the following minimum levels (by weight or volume) (refer Table-54 of the manual)	1 to 3			1	1	Issue not targeted	Contractor/Tender		
Wst 03 - Operational Waste	Operational Waste (1 credit)	There is dedicated space(s) to cater for the segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s) and activities. The dedicated space(s) must be: - Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams - Accessible to building occupants / facilities operators for the deposit of materials and collections by waste management contractors - Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily/weekly operational activities and occupancy rates. Space requirements: For each 1,000m2 of NIA, 2m2 of storage space for recyclables should be provided. If there is also catering in the building, this area should be doubled. If tenants are sharing waste storage space, there is a cap on size: maximum 10m2 (20m2 with catering waste) for buildings of 5,000 m2 or larger.	1 to 3	1			1	The waste strategy for the building is to be agreed with the appropriate borough External waste/recycling storage to be available and clearly labelled - at least 2sqm per 1000sqm of NIA to be marked on plans Additionally for multi-residential buildings with individual bedrooms and communal facilities 3 internal recyclable storage containers(of minimum total capacity 30lit) located in a communal space should be provided	Architect		
Wst 04 - Speculative Floor and Ceiling Finishes	Speculative Floor and Ceiling finishes (1 credit)	Not Applicable				0	0	Issue not Applicable			

	Wst 05 - Adaptation to Climate Change	Adaptation to climate change – structural and fabric resilience (1 credit)	Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the following approach: a. Carry out a systematic (structural and fabric resilience specific) risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extreme weather conditions arising from climate change and, where feasible, mitigate against these impacts. The assessment should cover the following stages: i. Hazard identification ii. Hazard assessment iii. Risk estimation iv. Risk evaluation v. Risk management.	1			1	1	Issue not targeted	Architect	
	Wst 06 - Functional Adaptability	Functional Adaptability (1 credit)	A building-specific functional adaptation strategy study has been undertaken by the client and design team by Concept Design (RIBA Stage 2 or equivalent), which includes recommendations for measures to be incorporated to facilitate future adaptation. Functional adaptation measures have been adopted in the design by Technical Design stage (RIBA Stage 4 or equivalent) in accordance with the functional adaptation strategy recommendations, where practical and cost effective. Omissions have been justified in writing to the assessor	1,2	1			1	A building-specific functional adaptation strategy study has been undertaken by building over its lifespan the client and design team to consider potential future adaptation/uses for the building	Architect	
	SECTION CREDIT SCORE				6.375	0.000	2.125	8			
Land Use & Ecology	LE 01 - Site Selection	Previously Occupied Land (1 credit)	At least 75% of the proposed development’s footprint is on an area of land which has previously been occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.	1	1			2	The site is 100% previously developed	Architect	
		Contaminated Land (1 credit)	A contaminated land specialist’s site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination. The site investigation, risk assessment and appraisal have identified: a. The degree of contamination b. The contaminant sources/types c.The options for remediating sources of contamination which present an unacceptable risk. The client or principal contractor confirms that remediation of the site will be carried out accordingly	2,3		1			Study from contaminated land specialist deeming the site as being contaminated and relevant remediation measures implemented	Land Specialist/ Client	
	LE 02 - Ecological Value of Site & Protection of Ecological Value Features	Ecological Value of Site (1 credit)	Land within the construction zone is defined as 'land of low ecological value' using either: a. The BREEAM checklist for defining land of low ecological value OR b.A Suitably Qualified Ecologist (SQE) who has identified the land as being of 'low ecological value' within an ecological assessment report, based on a site survey.	1	1			2	Requires appointment of ecologist to undertake report and the report finding are to be implemented	Suitably Qualified Ecologist	
		Protection of Ecological Features (1 credit)	All existing features of ecological value within and surrounding the construction zone and site boundary area are adequately protected from damage during clearance, site preparation and construction activities in line with BS42020: 2013 In all cases, the principal contractor is required to construct ecological protection recommended by the SQE, prior to any preliminary site constructionor preparation works	2,3	1					Suitably Qualified Ecologist/Contractor	
	LE 03 - Minimising impact on existing site ecology Minimum Standards- 1 credit	Change in ecological value (1 credit)	The change in ecological value of the site is equal to or greater than zero plant species, i.e. no negative change, using the methods outlined in either (a) or (b) below a. Determine the following information and input this data in to the BREEAM LE 03/LE 04 calculator: i.The broad habitat type(s) that define the landscape of the assessed site in its existing pre-developed state and proposed state (seeTable - 56 of the manual). ii.Area (m2) of the existing and proposed broad habitat types. b. Where a Suitably Qualified Ecologist is appointed i.The broad habitat types that define the landscape of the assessed site in its existing pre-developed state and proposed state. ii.Area (m2) of the existing and proposed broad habitat plot types. iii.Average total taxon (plant species) richness within each habitat type	1a or 1b	1		1	2	Mandatory : One credit must be achieved to comply with minimum standards Requires appointment of ecologist to undertake report and the report finding are to be implemented	Suitably Qualified Ecologist	
	LE 04 - Enhancing Site Ecology	Ecologist's report and recommendations (1 credit)	The SQE has provided an Ecology Report based on a site visit/survey with appropriate recommendations for the enhancement of the site's ecology at Concept Design stage (RIBA Stage 2 or equivalent) and the early advice have been, or will be, implemented in the final design and build	1 to 6	1			2	Requires appointment of ecologist to undertake report and the report finding are to be implemented	Suitably Qualified Ecologist	

		Increase in ecological value (1 credit)	The first credit is met The recommendations of the Ecology Report for the enhancement of site ecology have been implemented in the final design and build, and the SQE confirms that this will result in an increase in ecological value of the site, with an increase of six plant species or greater		1						
	LE 05 - Long Term Impact on Biodiversity	Impact on Biodiversity (1 credit)	Not Applicable	1 to 3			0	0	Issue not Applicable	Suitably Qualified Ecologist	
	SECTION CREDIT SCORE				7.500	1.250	1.250	8			
Pollution	Pol 01 - Impact of Refrigerants	Pre-requisite	Not Applicable	2					Issue not Applicable	M&E Specification	
		Impact of refrigerant (1 to2 credits)		3,4			0	0			
		Leak detection (1 credit)		6,7			0				
	Pol 02 - Nox Emissions	Nox Emissions (upto 3 credits)	Where the plant installed to meet the building's delivered heating and hot water demand has, under normal operating conditions, a Nox emission level (measured on a dry basis at 0% excessO2) as follows: NOx Emission levels for heating and hot water (mg/kWh) Credits ≤ 100 mg/kWh - 1 credit ≤ 70 mg/kWh - 2 credits ≤40 mg/kWh - 3 credits	1, 2			3	3	Use of air-to-water heat pumps - credits not acheiveble	M&E Consultant	
	Pol 03 - Surface Water Run-off	Flood risk (1 to 2 credits)	Where a site-specific flood risk assessment (FRA) confirms the development is situated in a flood zone that is defined as having a low annual probability of flooding (in accordance with current best practice national planning guidance). The FRA must take all current and future sources of flooding into consideration Or 1 Credit: Where evidence provided demonstrates that the assessed development is located in a zone defined ashaving a medium or high annual probability of flooding.	1 OR 2&3	2			5	Site specific FRA required to demonstrate site in Flood Zone 1	Appropriate Consultant/Hydrologist	
		Surface water run-off (2 credits)	2 Credits Either of the following criteria is met: a.There is a decrease in the impermeable area by 50% or more, from the pre-existing impermeable hard surfaces; OR b.Where all run-off from the roof for rainfall depths up to 5mm from all new and existing parts of the building have been managed on-site using source control methods	23 OR 24	1	1			Assumed run-off no greater than pre-development, but will require hydrologists report to confirm	Appropriate Consultant/Hydrologist	
		Minimising water course pollution (1 credit)	The AppropriateConsultant confirms that there is no discharge from the developed site for rainfall up to 5mm. In areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques. All water pollution prevention systems have been designed and detailed in accordance with the recommendations of Pollution Prevention Guideline 31 and where applicable the SUDS manual2	15 to 22			1			Issue not targeted	Appropriate Consultant/Hydrologist
	Pol 04 - Reduction of Night Time Light Pollution	Reduction in Night Time Light Pollution (1 credit)	1 Credit: Where external lighting pollution has been eliminated through effective design that removes the need for external lighting without adversely affecting the safety and security of the site and its users. OR alternatively, where the building does have external lighting, one credit can be awarded as follows: -The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011 - All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. - If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes. - Illuminated advertisements, where specified, must be designed in compliance with ILE Technical Report 5 – The Brightness of Illuminated Advertisements	1 to 5	1			1	External lighting to be designed to ILE guidance to avoid night time pollution Automated switch off required 2300 - 0700	M&E Specification	
Pol 05 - Reduction of Noise Pollution	Reduction in Noise Pollution (1 credit)	Not Applicable	1 to 5			0	0	Issue not Applicable	Suitably Qualified Acoustician		

Innovation							
	SECTION CREDIT SCORE			4.444	1.111	4.444	9
	Man 01			0	0	1	1
	Man 03			0	0	1	1
	Man 05			0	0	1	1
	Hea 01			0	0	1	1
	Hea 02			0	0	1	1
	Ene 01			0	0	1	1
	Wat 01			0	0	1	1
	Mat 01			0	0	1	1
	Mat 03			0	0	1	1
	Wst 01			0	0	1	1
	Wst 02			0	0	1	1
	Wst 05			0	0	1	1
	Pol 03	Simple Buildings Only		0	0	1	1
SECTION CREDIT SCORE (MAX 10)				0.000	0.000	13.000	10

Summary

Management
Health & Wellbeing
Energy
Transport
Water
Materials
Waste
Land Use & Ecology
Pollution
Innovation

Totals

Definite	Possible	Not Available	Max Credits Available
10.00	2.00	0.00	22.00
4.62	3.46	5.77	13.00
5.45	2.05	7.50	22.00
6.00	3.00	0.00	6.00
5.00	0.00	2.00	7.00
7.71	0.00	5.79	14.00
6.38	0.00	2.13	8.00
7.50	1.25	1.25	8.00
4.44	1.11	4.44	9.00
0.00	0.00	13.00	10.00
57.10	12.87	41.87	119

Credit information required

Partial credit information received

Credit not targeted

Credit completed

Potential additional credits

