

REVISION A

BREEAM Sustainability Statement for 8-9 Spring Place

8-9 Spring Place, London NW5 3ER

Prepared by Eteria

for [Client]





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1 Executive Summary

This report summarises how the proposed redevelopment at 8-9 Spring Place, London addresses the key policies of sustainability within Camden's Local Plan and the Greater London Authority London Plan, specifically with relation to the assessment of the scheme under the BREEAM assessment process.

This report documents the environmental sustainability considerations that have been incorporated into the design of the proposed redevelopment, measures for contractors involved in the construction, and initiatives relating to the eventual management and operation of the completed development, as defined within the BRE's BREEAM assessment process.

The proposed development is being assessed under the BRE BREEAM certification scheme, with the most applicable version of the scheme, under which it will be assessed, being BREEAM UK Refurbishment & Fit-Out 2014.

A BREEAM Pre-Assessment Estimator tool has been used to predict the rating the scheme will achieve at formal assessment stage, and set targets for the scheme as it moves through the design and construction stages.

The formal design stage BREEAM assessment and certification will take place, and can only take place, later in the design process when all evidential documentation has been produced and can be provided for assessment.

The pre-assessment shows that a BREEAM Very Good rating is targeted by the scheme at this time, with a score of 66.76% achieved which is a very high score within the Very Good banding, this having been achieved despite the limited scope of the refurbishment which is otherwise hindering achieving a higher rating. Although this is considered the best rating the scheme could achieve, as the design progresses this will continue to be reviewed with opportunities taken to improve on this if considered feasible.

2 Introduction

2.1 Introduction

This report summarises how the proposed redevelopment of 8-9 Spring Place, London addresses the key policies of sustainability with Camden's Local Plan and the Greater London Authority London Plan, specifically with relation to the assessment of the scheme under the BREEAM assessment process.

2.2 Basic description of the development

The proposal involves the refurbishment and redevelopment of the existing building into a 30-bedroom hotel offering guest accommodations. The redevelopment will include upgrades to the building fabric, where feasible, to enhance the energy efficiency and sustainability of the building.



Figure 1 – Site location



3 Approach to sustainability

3.1 Minimising carbon dioxide emissions

Energy demand, and hence Carbon Dioxide (CO₂) Emissions from the proposed development have been minimised by implementing the following hierarchy:

1. Be Lean: by using less energy
2. Be Clean: by supplying energy efficiently
3. Be Green: using renewable energy

The Energy Statement submitted as part of the planning application demonstrates the principles which have been applied to ensure that energy use is minimised, resulting in a reduction in CO₂ emissions over the existing site, such that the minimum Energy Performance Ratio (EPRNDR) required for a BREEAM Excellent rating (≥ 0.36) is achieved.

3.2 Energy monitoring

Energy metering will be provided that enables at least 90% of the estimated annual energy consumption of each fuel to be assigned to the required end- use categories of energy consuming systems, thus facilitating efficient operation. This metering strategy will allow connection to appropriate energy monitoring and managements systems.

3.3 Minimising energy use during construction

The demand for energy during the Construction Phase will also be reduced by adopting the following principles:

- Metering and monitoring of energy consumption on site
- Reporting of energy consumption on a monthly basis
- Display of energy consumption data on site
- The contractor will be required to report energy consumption data in kWh to the client on a monthly basis.

3.4 Efficient use of water in operation

As with energy, a hierarchy approach will be taken with respect to minimizing potable water consumption by;

- Reduced demand through good design
- Providing efficient water use
- Specifying water efficient equipment



- Reducing demand by enabling and encouraging water efficient occupier behaviour
- Provision of smart water meters

Water consumption will be limited to achieve a 40% improvement over the baseline building water consumption, this would achieve 3 credits under BREEAM Wat 01 criteria, a considerable improvement on the minimum requirement of 1 credit required for an Excellent rating.

Although at a too early stage to specify such equipment, typical selections that would meet this criterion are:

WC 4 litre effective flush volume

Basin taps 4.5 litres/min

Kitchen taps 5 litres/min

Showers 6 litres/min

Bath 140 litre capacity

Should any irrigation systems be provided these will be drip fed subsurface type incorporating soil moisture sensors to ensure efficient water use for plant watering.

Leak detection equipment will be provided on the incoming water main to the development to ensure that any unexpected leaks on the system are quickly detected and rectified to ensure minimal wastage of water. Sub-metering of water supplies will also be provided throughout to monitor where water is being used and to detect any unexpected usage that may be down to leaks or human factors. Flow control devices will be provided to the water supplies in each bathroom; these will shut off water supply to the area when unoccupied and therefore prevent wastage.

3.5 Efficient use of water during construction

Water consumption during the Construction Phase will also be reduced through:

- Metering and monitoring of water consumption on site
- Reporting of water consumption on a monthly basis
- Display of water consumption data on site

3.6 Minimising pollution during construction

Pollution is the introduction of contaminants into the natural environment that cause adverse changes, with air, noise, light pollution, and flood risks of particular concern to construction sites and new developments.



The proposed development will be registered under the Considerate Constructors Scheme which includes compliance requirements with respect to being clean, a good neighbour, respectful, safe, responsible and accountable.

During the construction processes, control procedures will be implemented to minimise noise and dust pollution and emissions will be monitored. Management systems will generally comprise procedures and working methods that are approved by the development team together with commercial arrangements to ensure compliance.

Construction traffic, which has the potential to have a damaging effect on neighbors, wildlife, roads and the local community, will be minimised by restricting deliveries and arrival times. Work will be limited to appropriate hours to be agreed with the local authority, and suppressors will be used to reduce noise from machinery.

The building materials within the proposed development will all:

- use traditional and/or long-established materials that do not emit harmful pollutants
- use materials that are stable, durable and appropriate
- Avoid the use of materials that contain heavy metals, biocides or known toxins such as lead or asbestos
- make sure that mineral and other fibres are completely encapsulated
- minimise the use of paints, using organic, water-based or mineral paints wherever practicable
- avoid timber preservatives.

3.7 Minimising pollution during operation

Noise generated from fixed building services will be limited by the selection of appropriate equipment, the use of attenuators or silencers, and/or acoustic screening where appropriate. Such measures will ensure that the noise generated from fixed plant will be considered of negligible significance.

There are no gas-fired equipment proposed to be provided the development, therefore there will be no emissions of NO_x, PM₁₀ and PM_{2.5} often associated with such equipment.

Although not currently designed, external lighting will be designed and selected such that they do not cause light pollution. This will be achieved by specifying external lighting which complies with ILP Guidance notes for the reduction of obtrusive light, 2011. All external lighting (except for safety and security lighting) would also be designed such that it can be automatically switched off between 23:00 and 07:00.



3.8 Minimising the generation of waste

Detailed design work will take account of opportunities to design out waste through design and specification decisions.

Waste reduction is a key principle of sustainable development. The two main areas of waste arising as a result of the development are:

- Construction waste
- Waste generated in use (residential and commercial waste)

A reduction in waste offers benefits not only to the environment, but also the occupier and developer. Throughout the design process, the intent will be to reduce waste going to landfill with key waste saving measures promoted. This will include the production of a Site Waste Management Plan and a target that at least 90% of construction waste will be diverted from landfill. Implementing a SWMP can result in benefits for the proposed development, including:

- Better control of risks relating to the materials and waste on the Application Site - 'Good housekeeping' of waste improves site safety.
- Demonstrating compliance with the legislative framework.
- A mechanism demonstrating how waste is managed and minimised and how associated costs are controlled.
- A tool to aid compliance with various environmental management systems e.g. ISO14001 and BREEAM.
- A system to help make cost savings by better managing the supply chain of materials, and their storage, handling, recovery and eventual disposal.

Construction operations generate waste materials as a result of general handling losses and surpluses. These wastes will be reduced through appropriate selection of construction methods, good site waste management practices and the identification of opportunities to avoid creating unnecessary waste.

The design of the building will allow sufficient space for the separation and storage of recycled dry and organic materials. In designing the waste storage facilities consideration has been given to;

- accessibility for building occupiers
- accessibility for collection
- safety and security
- avoidance of nuisance from noise, smell or visibility
- potential for composting of organic waste

3.9 Avoiding impacts from flooding

A site-specific flood risk assessment (FRA) advises that the proposed development is situated in flood zone 1, which has a low probability of flooding from rivers and the sea as also shown on the Environmental Agency Flood Map for the development site in Figure 1.

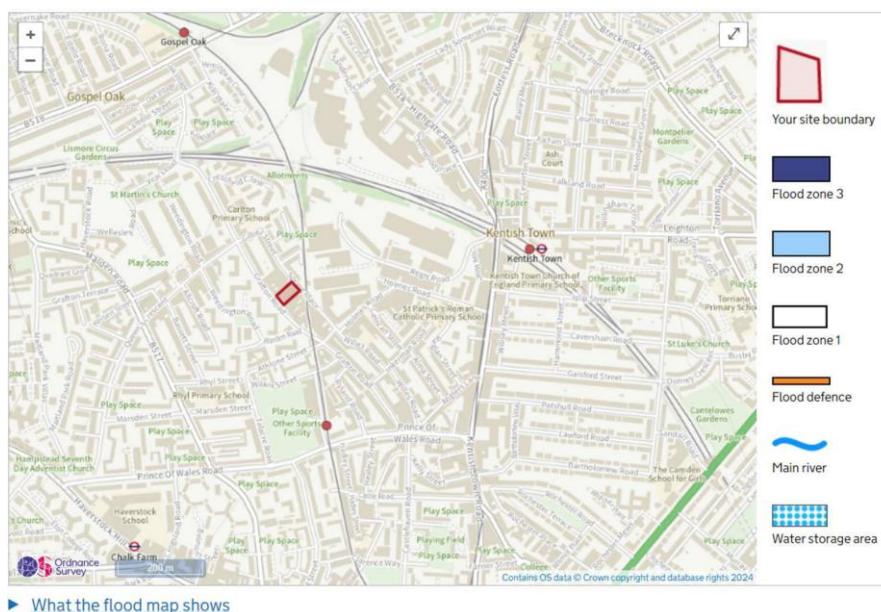


Figure 2 - Gov.uk Flood Map for Planning

In addition, risk of flooding from surface water is designated as Low, with risks from groundwater and reservoirs designated as unlikely.

3.10 Ensuring developments are comfortable and secure for users

The proposed development is scaled appropriately so as to respond to the needs of all its users, with the requirements of the Disability Discrimination Act (1995) incorporated as necessary.

Full consideration has been given to visual comfort for building occupants and users with good practice levels of daylighting provided whilst controlling the occurrence of glare.

Internal lighting in all relevant areas of the building will be designed to provide an illuminance (lux) level appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. Typically, a lighting design strategy that provides illuminance levels in accordance with the CIBSE Code for Lighting 2012 would be provided.

Security of the site and building will also be given high priority with consultations having been held with the secure by design officer and/or counter-terrorism consultant and the implementation of their recommendations.



3.11 Sustainable procurement of materials

The production of construction materials incurs the use of energy and other resources and can have a significant effect on carbon emissions. The following key factors will be considered when selecting materials:

- origin of supply
- availability of locally sourced materials
- embodied carbon using data from suppliers
- method and distance of transportation to site
- recycled materials and content
- hazardous content
- life expectancy
- suitability in relation to future climate conditions All timber-based products will be FSC certified.

A life cycle assessment (LCA) tool will be used to measure the life cycle environmental impact of the refurbishment works. The results of this will be used to complete the BREEAM Mat 01 calculator, to determine a score based on the robustness of the LCA tool used and the scope of the assessment in terms of the materials specified that have been considered. The tool will also be used to benefit the building in terms of measuring and reducing its environmental impact.

A target has been set for 65% the BREEAM Mat 01 calculator points to be achieved, correlating to 4 credits under this criteria.

3.12 Protecting biodiversity

The construction zone of the site consists of existing buildings and hardstanding. There are no trees within the construction zone, the site has therefore been classified to be of low ecological value. Any areas considered of ecological value on the boundary of the construction zone will be protected throughout all stages of construction work.

3.13 Conclusion

The proposed development at 8-9 Spring Place, London targets the highest levels of sustainability, with the proposed design addressing the key policies of the London Plan and Camden's Local Plan. A BREEAM Pre-Assessment has been completed for the development and the resulting pre-assessment form is provided in Section 5.0 of this report, and demonstrates that the sustainability credentials of the design have been maximised where technically feasible, however limited by the extent of refurbishment being undertaken with a minimum BREEAM Very Good rating sought. As the design progresses this will continue to be reviewed with opportunities taken to improve on this if considered feasible.



4 BREEAM

4.1 BREEAM Overview

BREEAM is a voluntary scheme that aims to quantify and reduce the environmental burdens of buildings by rewarding those designs that take positive steps to minimise their environmental impacts. ERS Consultants were commissioned to carry out a pre-assessment of the development, based on the latest scheme for such change of use/refurbishment projects; BREEAM UK Refurbishment and Fit-Out 2014.

The BREEAM UK Refurbishment & Fit-Out 2014 scheme provides a modular set of criteria that are applied depending upon the scope of works for a particular project, with the weighting of the credits being dependant on which of these are applicable. The scope is broken up into four parts:

- Part 1: Fabric and Structure
- Part 2: Core Services
- Part 3: Local Services
- Part 4: Interior Design

For this assessment only Parts 2, 3 and 4 are applicable since this is a change of use development with no proposed changes to the fabric or structure.

The credits achievable under BREEAM are grouped within the following categories:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use and Ecology
- Pollution

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating of PASS, GOOD, VERY GOOD, EXCELLENT and OUTSTANDING.



The BREEAM Outstanding rating was introduced in 2008 to recognise a new standard of sustainability for exemplary developments. A score of 85% or above must be obtained to achieve Outstanding, compared to 70% for an Excellent rating, it is therefore considered that such an Outstanding rating is only likely to be achieved for owner occupied new buildings.

4.2 BREEAM Scoring

Within each of the BREEAM categories outlined in Section 3.1 there are a number of credit requirements that reflect the options available to designers and managers of buildings.

Issue Category	Issue Weighting
Management	14.74 %
Health and Wellbeing	17.58 %
Energy	16.33 %
Transport	6.02 %
Water	6.88 %
Materials	16.12 %
Waste	7.25 %
Land Use and Ecology	5.16 %
Pollution	9.92 %

Rating	Minimum Score
Good	40
Very Good	55
Excellent	70
Outstanding	80

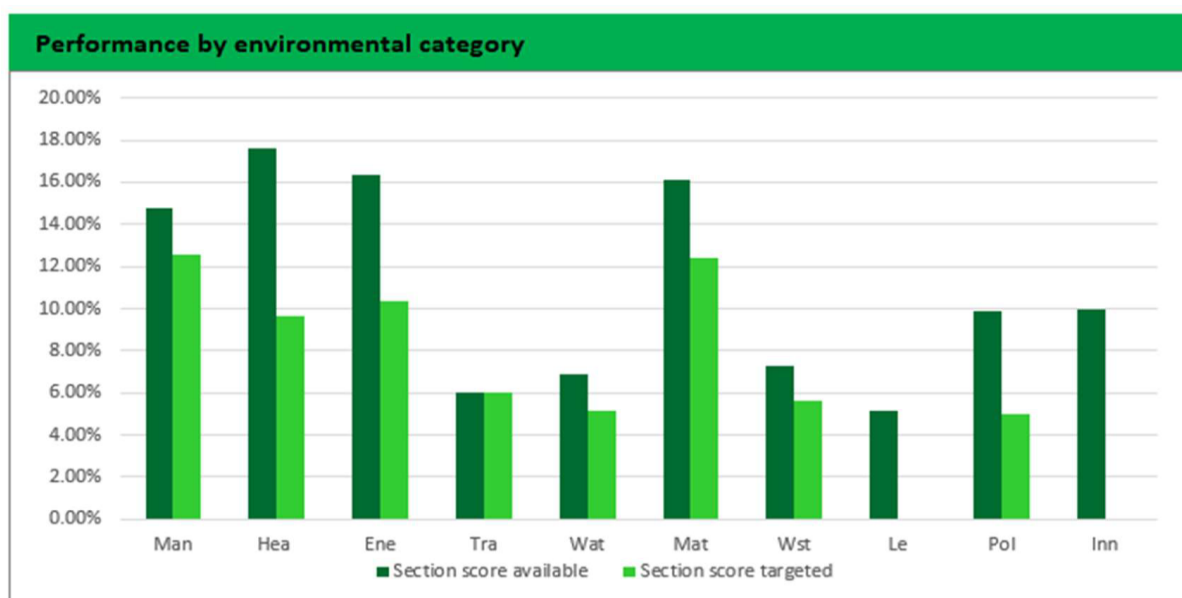
An environmental weighting is applied to the scores achieved under each category, as shown below, in order to calculate the final BREEAM score. The weighting factors have been derived from consensus based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE to establish the relative importance of each environmental issue. These ratings also reflect the scope of the refurbishment or fit-out with respect to whether the work encompasses Parts 1, 2, 3 and 4.



5 BREEAM Pre-Assessment

A BREEAM pre-assessment has been undertaken for the proposed scheme and is presented within this section of this report, summarized as follows:

	Credits available	Credits targeted	% Credits achieved	Weighting	Category score
Man	20	17	85.0%	14.74%	12.53%
Hea	20	11	55.0%	17.58%	9.67%
Ene	22	14	63.6%	16.33%	10.39%
Tra	7	7	100.00%	6.02%	6.02%
Wat	8	6	75.0%	6.88%	5.16%
Mat	13	10	76.9%	16.12%	12.40%
Wst	9	7	77.8%	7.25%	5.64%
Le	2	0	0.0%	5.16%	0.00%
Pol	10	5	50.0%	9.92%	4.96%
Inn	10	0	0.0%	10.00%	0.00%
Total					66.76%
Rating					Excellent





The pre-assessment shows that a BREEAM Very Good rating is targeted by the scheme at this time, with a score of 66.76% which is a very high score within the Very Good banding, this having been achieved despite the limited scope of the refurbishment which is otherwise hindering achieving a higher rating. Although this is considered the best rating the scheme could achieve, as the design progresses this will continue to be reviewed with opportunities taken to improve on this if considered feasible.

The credits identified will continue to inform the design, management and construction of the project post determination.



6 Appendix A - BREEAM Credits Report

Project		Unweighted			Credit Requirements	Comments
		Credits Available	Credits Targeted	Potential Uplift Credits		
Project	8-9 Spring Gardens					
Version	RFO 2014					
Date	13/11/2024					
MANAGEMENT						
Man 01	Project Brief and Design	1	1		<p>One Credit - Stakeholder Consultation (Project Delivery)</p> <p>A clear sustainability brief was developed before concept design, setting out the client requirements, sustainability objectives, timescales and budget points and the list of consultees and appointed professionals onto the scheme.</p>	<p>RIBA Stage 1/2 Requirement.</p> <p>It is assumed that the sustainability brief can be produced which complies with the credit requirements.</p>
		1	0	1	<p>One Credit - Stakeholder Consultation (Third Party)</p> <p>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</p> <p>Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), consultation feedback needs to have been given to, and received by, all relevant parties.</p>	<p>RIBA Stage 1/2 Requirement.</p> <p>A consultation plan will need to be developed that considers all relevant third party stakeholders. The scope required is in excess of what might be expected of this scale of scheme, therefore this credit is only taken as a possible potential uplift credit.</p>
		1	0	1	<p>One Credit - Sustainability Champion (Design)</p> <p>A Sustainability Champion was appointed at RIBA stage one and it is assumed that this consultant will remain through the project</p>	<p>RIBA Stage 1/2 Requirement.</p> <p>It is assumed that a BREEAM AP has not been appointed from RIBA stage 1, therefore this credit is only taken as a potential uplift credit.</p>
		1	0	1	<p>One Credits - Sustainability Champion (Monitoring Progress)</p> <p>A Sustainability Champion was appointed at RIBA stage one and it is assumed that this consultant will remain through the project</p>	<p>RIBA Stage 1/2 Requirement.</p> <p>It is assumed that a BREEAM AP has not been appointed from RIBA stage 1, therefore this credit is only taken as a potential uplift credit.</p>
Man02	Lifecycle Costing and Service Life Planning	2	2		<p>Two Credits - Elemental Cycle Cost</p> <p>The QS is to carry out an Elemental Cycle Cost (ECC) Plan, by RIBA Stage 2 showing:</p> <ul style="list-style-type: none"> The building's basic structure and envelope, appraising a range of options and based on the life expectancy of the refurbished building e.g. 20, 30, 50+years; The servicing strategy for the project outlining services component over a 15 -year period, in the form of an elemental LCC Plan'. A fit-out strategy is developed outlining fit-out options over a 10-year period 	<p>RIBA Stage 1/2 Requirement.</p> <p>It is assumed that the required elemental lifecycle costing exercise will be undertaken at the appropriate time (by RIBA stage 2)</p>
		1	1		<p>One Credit - Component Level Lifecycle Costing Report</p> <p>A component level LCC plan is to be developed by the end of Process Stage 4 (equivalent to Technical Design – RIBA Stage 4) in line with PD 156865:2008</p>	<p>It is assumed that the required LCC plan can be developed by the end of RIBA stage 4.</p>
		1	1		<p>One Credit - Capital Cost Reporting</p> <p>It is assumed that the client will report the capital cost for the refurbishment / fit-out works in pounds per square metre (£k/m2) via the BREEAM Assessment Scoring and Reporting tool. Alternatively, the figures can be passed onto the BREEAM Assessor for assistance.</p>	<p>It is assumed that this credit can be achieved by the appropriate reporting of the capital cost of the building.</p>
Man 03	Responsible Construction Practices	n/a	n/a		<p>Pre-Requisite</p> <p>All timber and timber-based products used on the project is 'Legally harvested and traded timber' (see Relevant definitions).</p>	<p>This is a pre-requisite to the subsequent credits, and is assumed to be achievable.</p>
		1	1		<p>One Credit - Environmental Management</p> <p>The principle contractor should operate an Environmental Management System (EMS) covering their main objective on site. The EMS must be third party certified to ISO 14001/EMAS or equivalent</p>	<p>It is anticipated that the main contractor will operate a suitable Environmental Management Program.</p>
		1	1		<p>One Credit - Sustainability Champion (Construction)</p> <p>In line with Man 01, a Sustainability Champion is appointed, to monitor the project to ensure ongoing compliance with the relevant sustainability performance/process criteria, and therefore BREEAM target(s), during the Construction.</p>	<p>This credit will require the appointment of a BREEAM AP to monitor compliance with BREEAM targets during the construction period.</p>
		2	2		<p>Up To Two Credits - Considerate Construction</p> <p>The principle contractor ensures that the site is registered under the Considerate Construction Scheme (CCS) with credits awarded as follows:</p> <p>a. One credit where the contractor achieves 'compliance' with the criteria of a compliant scheme (a CCS score between 25 and 34 with a score of at least 5 in each of the five sections).</p> <p>b. Two credits where the contractor significantly exceeds 'compliance' with the criteria of the scheme (a CCS score between 35 and 39 with a score of at least 7 in each of the five sections).</p> <p>An Innovation credit is achievable where an Exemplary level performance of a CCS score of 40 or more, with a score of at least 7 in each section is achieved.</p>	<p>It is assumed that the appointed main contractor will be registered with the considerate construction scheme and at least two credits will be achievable.</p>
		2	2		<p>Up To Two Credits - Monitoring of construction-site impacts</p> <p>a. One credit where a site based operative is to be assigned for monitoring, recording and reporting energy use and water consumption resulting from ALL on-site refurbishment or fit out processes.</p> <p>b. Two credits where a site based operative is to be assigned for monitoring, recording and reporting energy use, water consumption and transport data, resulting from ALL on-site refurbishment or fit out processes.</p>	<p>It is assumed that the contractor will be required to monitor energy and water use in addition transport data (deliveries and waste removal) to achieve all 2 credits.</p>
Man 04	Commissioning and Handover	1	1		<p>One Credit - Commissioning and testing schedule and responsibilities</p> <p>The developer and M&E consultants are to supply a schedule of commissioning and testing that identifies appropriate commissioning required for the scope of works, including a suitable timescale for commissioning and re-commissioning of all relevant works carried out.</p>	<p>This would require appropriate commissioning schedule, an appropriate person appointed to monitor the commissioning, program of commissioning and testing. It is assumed that these credit requirements can be met.</p>
		1	1		<p>One Credit - Commissioning building services</p> <p>A specialist commissioning manager is to be appointed during the design stage (by either client or contractor) with responsibility for:</p> <ul style="list-style-type: none"> Undertaking design reviews and giving advice on suitability for ease of commissioning Providing commissioning management input to construction programming and during installation stages Management of commissioning, performance testing and handover/post-handover stages. 	<p>This would require appropriate commissioning schedule, an appropriate person appointed to monitor the commissioning, program of commissioning and testing. It is assumed that these credit requirements can be met.</p>
		NA	NA		<p>One Credit - Testing and inspecting building fabric</p> <p>Projects where the fabric of the building is being upgraded, the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths is to be quality assured through completion of a thermographic survey as well as airtightness testing and visual inspection at appropriate times during the refurbishment. The survey/testing is undertaken by a Suitably Qualified Professional</p>	<p>Not applicable since no works undertaken to the fabric.</p>
		1	1		<p>One Credit - Handover</p> <p>A Building User Guide is developed, prior to handover for distribution to the building occupiers and premises.</p> <p>A Training schedule is also to be prepared for building occupiers, timed around the handover date, outlining maintenance requirements, aftercare, seasonal commissioning evaluation details and a general introduction to the building services and operation</p>	<p>It is assumed that the appropriate building user guide would be provided to achieve the credit. It should be noted that this building user guide includes elements beyond a standard O&M manual.</p>

		Unweighted			Credit Requirements	Comments
Project	8-9 Spring Gardens	Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
Date	13/11/2024					
Man 05	Aftercare	1	1		One Credit - Aftercare support There is to be operational infrastructure and resources in place to provide aftercare support to the building occupier(s) A meeting programmed to occur between the aftercare team/individual and the building occupier/management as soon as possible to introduce the aftercare team or individual to the aftercare support available, including the Building User Guide and training schedule/content.	It is assumed that the required level of aftercare support can be provided.
		1	1		One Credit - Seasonal commissioning The following seasonal commissioning activities will be completed over a minimum 12-month period, once the building becomes substantially occupied: Testing of all building services under full load conditions, i.e. heating equipment in mid-winter, cooling/ventilation equipment in mid-summer, and under part load conditions (spring/autumn). Where applicable, testing should also be carried out during periods of extreme (high or low) occupancy. Interviews with building occupants (where they are affected by the complex services) to identify problems or concerns regarding the effectiveness of the systems. Re-commissioning of systems (following any work needed to serve revised loads).	It is assumed that the required level of seasonal commissioning can be provided.
		1	1		One Credit - Post occupancy evaluation The client or building occupier makes a commitment to carry out a post occupancy evaluation (POE) exercise one year after initial building occupation. This is done to gain in-use performance feedback from building users to inform operational processes, including re-commissioning activities, and maintain or improve productivity, health, safety and comfort.	This credit will need to be considered to meet the target rating.
Total Unweighted Credits		20	17	3		
Weighting		14.74				
Total Weighted Score		12.53	14.74			

HEALTH AND WELLBEING						
Hea 01	Visual Comfort	1	1		One Credit - Glare control The potential for disabling glare is to be designed out of all relevant building areas using a glare control strategy, either through building form and layout and/or building design measures and avoids increasing lighting energy consumption by ensuring that the glare control system is designed to maximise daylight levels under all conditions, while avoiding disabling glare in the workplace or other sensitive areas. The system should not inhibit daylight from entering the space under cloudy conditions, or when sunlight is not on the façade. Lighting of work places - Part 2: Outdoor work places.	Will require internal blinds to the relevant spaces, as discussed during the workshop, these are likely to be provided.
		3	2	1	Up to Three Credits - Daylighting All areas that are occupied for 30 minutes or more are to achieve an average daylight factor (ADF) of min 2% 1 Credit: where 40% of areas comply 2 Credits: Where 60% of areas comply 3 Credits: Where 80% of areas comply Uniformity ratio of 0.3 min. or minimum point daylight factor of 0.7% (a) OR 2 Credits: Where daylighting provision has improved after refurbishment by ≥30% 1 Credit: Where daylighting provision has improved after refurbishment by ≥ 15%	Although subject to a full daylighting study it is thought that the requirements of 2 credits should be achieved in the required spaces.
		2	1		Up to Two Credits - View out One credit: where 80% of the floor area space in relevant building areas is within 7m of a wall which has a window or permanent opening that provides an adequate view out Two credits: where 95% of the floor area space in relevant building areas is within 7m of a wall which has a window or permanent opening that provides an adequate view out	One credit has been currently targeted, however will be subject to the required analysis to confirm this.
		1	1		One Credit - Internal and external lighting All fluorescent and compact fluorescent lamps are fitted with high frequency ballasts. Internal lighting in all relevant areas of the building is designed to provide an illuminance (lux) level appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. This can be demonstrated through a lighting design strategy that provides illuminance levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 3.3, 4.6, 4.7, 4.8 and 4.9. For uplighting, the recommendations refer to the luminance of the lit ceiling rather than the luminaire; a design team calculation is usually required to demonstrate this. All external lighting (if applicable) located within the refurbishment or fit-out zone is designed to provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night, in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting -	It is anticipated that the internal and external lighting design will be able to comply with the credit requirements.
Hea 02	Indoor Air Quality	1	1		One Credit - Indoor Air Quality Plan An indoor air quality plan is to be produced and implemented, with the objective of facilitating a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during the design, construction and occupation of the building.	An Indoor Air Quality Plan should be developed in order to achieve the credit here.
		1	0		One Credit - Ventilation Refurbishment and fit-out works include measures to minimise the concentration and recirculation of pollutants in the building.	Credit unlikely to be achieved due to the site location.
		1	1		One Credit - Adaptability - potential for natural ventilation The building ventilation strategy is designed to be flexible and adaptable to potential building occupant needs and climatic scenarios.	It anticipated that natural ventilation strategy will be employed, therefore this credit is currently targeted.
		1	1		One credit - Volatile organic compound (VOC) emission levels (products) The formaldehyde concentration level is measured post construction (but pre-occupancy) and is found to be less than or equal to 100µg/m3 averaged over 30 minutes (WHO guidelines for indoor air quality: Selected pollutants, 20102). The total volatile organic compound (TVOC) concentration level is measured post construction (but pre-occupancy) and found to be less than 300µg/m3 over 8 hours, in line with the Building Regulation requirements. Where VOC and formaldehyde levels are found to exceed the limits defined in criteria 8 and 9, the project team confirms the measures that have, or will be taken, in accordance with the IAQ plan, to reduce the levels to within these limits, including re-measurement.	The credit should be sought by the appropriate specification of products.
		1	1		One Credit - Volatile organic compound (VOC) emission levels (post construction) All decorative paints and varnishes specified meet the criteria in Table 20 (BREEAM Technical Manual) At least five of the seven remaining product categories listed in Table 20 meet the testing requirements and emission levels criteria for volatile organic compound (VOC) emissions.	It can be difficult to achieve the VOC requirements in practice (during testing), however, as discussed in the workshop, the credit is to be targeted.
Hea 03	Safe Containment in Laboratories	NA	NA		Not Applicable to Building Type	

Project	8-9 Spring Gardens	Unweighted			Credit Requirements	Comments
		Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
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Hea 04	Thermal Comfort	1	0	1	One Credit - Thermal Modelling A Thermal Comfort Model is to be carried out and implemented to score credits in this section. The credits are based on the model being carried out, recommendations to counteract any overheating issues that may occur The model should demonstrate that 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 design The building is to be designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in CIBSE TM52 From the thermal model, a temperature control strategy for the building and its users should be utilised.	Since cooling is not anticipated to be provided, it is possible that the thermal comfort criteria will not be able to be met and therefore this credit isn't taken. The appropriate study will however be undertaken and if actually achievable will be added back in.
		1	0	1	One Credit - Thermal zoning and controls The thermal modelling analysis has informed the temperature control strategy for the building and its users. The strategy for proposed heating/cooling system(s) demonstrates that it has addressed the following: a. Zones within the building and how the building services could efficiently and appropriately heat or cool these areas. b. Where specified, any new local cooling or heating services (or changes to existing services) are designed to ensure they do not conflict with core services	With the thermal modelling not being undertaken, this credit cannot be achieved, but should be considered if a higher rating is required.
		1	0	1	One Credit - Adaptability for a Projected Climate Change Scenario The thermal modelling should demonstrate that the relevant requirements set out in the 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 via the BREEAM assessment scoring and reporting tool.	As per the thermal modelling credit, this is unlikely to be achieved by the scheme, but should be considered if a higher rating is required.
Hea 05	Acoustic Performance	4	1	For individual bedrooms and self contained dwellings One credit Airborne sound insulation values are at least 3dB higher and impact sound insulation values are at least 3dB lower than the performance standards in the relevant Building Regulations or Standards. Three credits Airborne sound insulation values are at least 5dB higher and impact sound insulation values are at least 5dB lower than the performance standards in the relevant Building Regulations or Standards. Four credits Airborne sound insulation values are at least 8dB higher and impact sound insulation values are at least 8dB lower than the performance standards in the relevant Building Regulations or Standards.	Since there will be a large number of retained internal walls to the bedrooms, just one credit is taken at this time, and will be subject to full review as the design progresses.	
Hea 06	Safety and Security	1	1	One credit - Security of site and building 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), see compliance note where the refurbishment or fit-out zone comprises part of a larger building. The SQSS develops a set of recommendations or solutions during or prior to Concept Design (RIBA Stage 2 or equivalent). These recommendations or solutions aim to ensure that the design of buildings, public and private car parks and public or amenity space are planned, designed and specified to address the issues identified in the preceding SNA.	RIBA Stage 1/2 Requirement This would require the appointment of a suitably qualified security specialist to conduct a security needs assessment before the end of RIBA stage 2.	
Total Unweighted Credits		20	11	4		
Weighting		17.58				
Total Weighted Score		9.67	13.19			

ENERGY						
Ene 01	Reduction of Energy Use and Carbon Emissions	15	7		One-Twelve Credits - Elemental level energy model The following should be assessed as applicable to the scope of works For projects that want to gain recognition for improvements made at the whole building level, using whole building energy modelling National Calculation Methodology (NCM) compliant software Calculate the Energy Performance Ratio for Non Domestic Refurbishment (EPRNDR) and compare with the benchmarks in the BREEAM Technical Manual to determine the corresponding number of BREEAM credits.	This will require energy modelling to demonstrate that there has been an improvement in the buildings energy performance, at least 6 credits are required for an Excellent rating, however, to meet target rating, 7 credits has currently been taken this is likely to require the use of heat pumps for heat generation, and PV.
Ene 02	Energy Monitoring	1	1		One credit - Sub-metering of major energy consuming systems Energy metering systems are installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems The energy consuming systems in buildings with a total useful floor area greater than 1,000m ² are metered using an appropriate energy monitoring and management system. The systems in smaller buildings are metered either with an energy monitoring and management system or with separate accessible energy sub-meters with pulsed or other open protocol communication outputs, to enable future connection to an energy monitoring and management system The energy consuming end uses are identifiable to the building users, for example through labelling or data outputs.	As discussed during the workshop, this credit is being targeted with the required level of metering provided.
		NA	NA		One credit - Sub-metering of high energy load and tenancy areas An accessible energy monitoring and management system or separate accessible energy sub-meters with pulsed or other open protocol communication outputs to enable future connection to an energy monitoring and management system are provided, covering a significant majority of the energy supply to tenanted areas or, in the case of single occupancy buildings, relevant function areas or departments within the building/unit.	Not applicable to this scheme.
Ene 03	External Lighting	1	1		One credit - External Lighting The building has been designed to operate without the need for external lighting (which includes on the building, signs and at entrances). Alternatively, where the building does have external lighting, 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.	External lighting will be designed to meet the BREEAM criteria.
Ene 04	Low Carbon Design	1	1		One Credit - Passive Design Analysis Where a passive design analysis from Hea 04 would be completed within the model. From this report, the project team are to carry out an analysis of the existing building fabric, form, site location and outline scheme design to influence decisions made during the Concept Design stage and identify opportunities for the implementation of passive design solutions and retro fit measures that reduce demands for energy consuming building services The building is to use 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 as a result.	RIBA Stage 1/2 Requirement The required passive design analysis will be undertaken to review the potential of taking this credit.
		1	1		One Credit - Free Cooling An additional credit can be awarded where a study report into free cooling is considered and implemented where possible	Since no active cooling is proposed to be provided, this credit is likely to be achieved.

Project	8-9 Spring Gardens	Unweighted			Credit Requirements	Comments
		Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
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		1	1		One Credit - Low Zero Carbon Feasibility Study The final credit could be awarded for having a Low Zero Carbon (LZC) study carried out at the completion of the Concept Design stage by an energy specialist, to establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy source(s) for the building/development	RIBA Stage 1/2 Requirement It is assumed that the required low and zero carbon feasibility study will be undertaken to achieve this credit.
Ene 05	Energy Efficient Cold Storage	NA	NA		One credit - Refrigeration energy consumption The refrigeration system, its controls and components have been designed, installed and commissioned as follows: a. In accordance with the Code of Conduct for carbon reduction in the refrigeration retail sector ¹ (see Other information) and BS EN 378-2 Refrigeration systems and heat pumps - Safety and environmental requirements. b. Using robust and tested refrigeration systems/components, normally defined as those included on the Enhanced Capital Allowance (ECA) Energy Technology Product List (ETPL) ² or an equivalent list (see CN8 for a list of components). The refrigeration plant has been commissioned to comply with the criteria for commissioning outlined in BREEAM issue Man 04 Commissioning and handover.	Not applicable since no such refrigeration equipment will be provided within the scheme.
		NA	NA		One credit - Greenhouse gas emissions from energy use Criteria 1 and 2 have been achieved. The installed refrigeration system demonstrates a saving in greenhouse gas emissions from energy use (CO2 eq.) over the course of its operational life.	Not applicable since no such refrigeration equipment will be provided within the scheme.
Ene 06	Energy Efficient Transport Systems	1	1		One credit - Energy Consumption Where new lifts are specified within refurbishment works, an analysis of the transportation demand and usage patterns for the building is to be carried out to determine the optimum number and size of lifts, in line with BREEAM Requirements. The lift specialist is to carry out this study	The lifts are to be refurbished, therefore this credit will be targeted.
		1	1		Two Credits - Energy Efficiency Features For each newly specified lift, the following three energy efficient features are specified and for existing lifts, at least two of the following energy efficient features are specified: The lifts operate in a standby condition during off-peak periods. For example the power side of the lift controller and other operating equipment such as lift car lighting, user displays and ventilation fans switch off when the lift has been idle for a prescribed length of time. The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 55 lamp lumens/circuit Watt. The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. Where the use of regenerative drives is demonstrated to save energy, they are specified	The lifts are to be refurbished, therefore this credit will be targeted.
Ene 07	Energy Efficient Laboratory Systems	NA	NA		Not Applicable to Building Type	
Ene 08	Energy Efficient Equipment	NA	NA		Two credits – Energy efficient equipment For kitchens and catering facilities: The project has incorporated at least two-thirds of the energy efficiency measures outlined in the section summaries of each of the following sections of CIBSE Guide TM505 (except as specified): 1. Section 8 (Drainage and kitchen waste removal) 2. Section 9 (Energy controls - specifically controls relevant to appliances) 3. Section 11 (Appliance specification - not fabrication or utensil specifications) 4. Section 12 (Refrigeration) 5. Section 13 (Warewashing: dishwashers and glasswashers) 6. Section 14 (Cooking appliance selection) 7. Section 15 (Water temperatures, taps, faucets and water saving controls).	Not applicable
Ene 09	Drying Space	NA	NA		Not Applicable to Building Type	
	Total Unweighted Credits	22	14	0		
	Weighting	16.33				
	Total Weighted Score	10.39	10.39			

TRANSPORT

Tra 01	Public Transport Accessibility	3	3		One - Five Credits - Accessibility Index The public transport Accessibility Index (AI) for the assessed building is calculated and BREEAM credits awarded according to the building type. The Accessibility Index is determined by entering the following information into the BREEAM Tra 01 calculator: •The distance (m) from the main building entrance to each compliant public transport node •The public transport type(s) serving the compliant node, e.g. bus or rail •The average number of services stopping per hour at each compliant node during the operating hours of the building for a typical day (see compliance notes and Table 36 in the Additional information section).	Due to the sites location it is assumed that it will have an AI of greater than 8 for all three credits.
Tra 02	Proximity to Amenities	1	1		One Credit - Proximity of Amenities Where a building is located within close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants, as outlined in Table 37, in the BREEAM Technical Guide. Retail = Type 1 2 local amenities within 500 meters •Appropriate ATM and Food Outlet •Access to Outdoor Open Space •Access to Leisure/Fitness Facility	It is assumed that the required number of amenities are within 500m of the site.
Tra 03	Cyclist Facilities	1	1		One Credit - Cycle Storage Compliant cycle storage spaces that meet the minimum levels set out as follows: 1 Cycle space PER 10 staff	Compliant cycle storage (including being covered) will be provided to achieve this credit.
		1	1		One Credit - Cyclist Facilities Along with the above, at least two of the following types of compliant cyclist facilities have been provided for all building users Showers Changing facilities Lockers Drying spaces	The required staff facilities are allowed for in the staff accommodation room, therefore this credit is targeted.
Tra 04	Maximum Car Parking Capacity	NA	NA		No external site area therefore this credit is not applicable.	NA

		Unweighted			Credit Requirements	Comments
Project	8-9 Spring Gardens	Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
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Tra 05	Travel Plan	1	1		<p>One Credit - Travel Plan</p> <p>A travel plan is to be developed as part of the feasibility and design stages. A site-specific travel assessment/statement is to be undertaken to ensure the travel plan is structured to meet the needs of the particular site and covers the</p> <p>The travel plan includes a package of measures to encourage the use of sustainable modes of transport and movement of people and goods during the building's operation and use.</p> <p>If the occupier is known, they must be involved in the development of the travel plan and they must confirm that the travel plan will be implemented post refurbishment or fit-out and be supported by the building's management in operation.</p>	<p>RIBA Stage 1/2 Requirement</p> <p>This will require the development of a BREEAM compliant Travel Plan during the feasibility stages, and is therefore thought to be achievable.</p>
Total Unweighted Credits		7	7	0		
Weighting		6.01				
Total Weighted Score		6.01			6.01	

		Unweighted			Credit Requirements	Comments
Project	8-9 Spring Gardens	Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
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WATER						
Wat 01	Water Consumption	5	3		<p>One-Five Credits: Water Consumption</p> <p>Up to 5 credits are available where an assessment of the efficiency of newly specified domestic water-consuming components and measures specified to retrofit existing devices is undertaken using the BREEAMWat 01 calculator.</p> <p>The water consumption (litres/person/day) for the assessed building is then compared against a baseline performance and BREEAMcredits awarded based upon Table 41 .</p> <p>3 credits have been targeted at this stage, based on a 40% improvement from baseline. Further credits can be awarded, however it is deemed onerous at this stage and is subject to review once the sanitary ware schedule has been produced</p>	4 credits will be sought here, this complies with the requirement for the minimum number of credits for Excellent to be sought here.
Wat 02	Water Monitoring	1	1		<p>One Credit - Water Monitoring</p> <p>A water meter is to be installed onto the mains water supply</p> <p>Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are to be fitted with either easily accessible sub-meters or have water monitoring equipment integral to the plant or area</p> <p>Each meter (main and sub) needs to have a pulsed or other open protocol communication output to enable connection to an appropriate utility monitoring and management system.</p> <p>If the refurbishment zone is within a site that has an existing BMS, managed by the same occupier/owner (as the space undergoing refurbishment or fit-out), the pulsed/digital water meter(s) for the refurbishment or fit-out zone must be connected to the existing BMS</p> <p>If the refurbishment or fit-out zone is within a building that is leasehold, the pulsed/digital water meter(s) for the refurbishment or fit-out zone must be connected to the incoming water supply for water using equipment in tenanted areas</p>	This would require the specification of a suitable water meter (with pulsed output) on the incoming main.
Wat 03	Water Leak Detection	1	1		<p>One Credit - Leak Detection System</p> <p>Leak detection systems which are capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter are to be installed.</p>	This would require the specification of specific equipment on the incoming mains, however is feasible.
		1	1		<p>One Credit - Flow Control Devices</p> <p>Flow control devices that regulate the supply of water to each WC area/facility according to demand are installed (and therefore minimise water leaks and wastage from sanitary fittings).</p>	This would require flow control devices (solenoid valves) linked to PIR sensors in EVERY bathroom, such that the water supply is shut off when the area is not used. As discussed during the workshop, this credit is to be targeted.
Wat 04	Water Efficient Equipment	NA	NA		<p>One Credit - Water Efficient Equipment</p> <p>Identify unregulated water demand that can be reduced.</p> <p>Demonstrate that unregulated water use, including vehicle wash, is minimised through specification of water efficient equipment or no mains fed irrigation</p>	It is assumed that there are no irrigation systems being provided to which this would apply.
Total Unweighted Credits		8	6	0		
Weighting		6.88				
Total Weighted Score		5.16	5.16			

MATERIALS						
Mat 01	Environmental Impact of Materials	6	4		<p>One-Six Credits: Project Lifecycle Assessment Study</p> <p>Robust environmental performance information is to be collected for newly specified materials and the total number of points achieved as set out in the Methodology section are calculated using the BREEAM Mat 01 calculator.</p> <p>The number of points scored is based on the percentage of each element that has been:</p> <ul style="list-style-type: none"> reused in situ reused in situ with minor repairs specified with robust environmental performance information. <p>Credits based on the Percentage of BREEAM Mat 01 Points Achieved 1 Credit - 10% / 2 Credits - 30% / 3 Credits - 50% / 4 Credits - 65% / 5 Credits - 75% / 6 Credits - 80%</p>	To maximise potential credits the project lifecycle assessment route would need to be taken, and a notional 4 credits have been taken here.
Mat 02	Hard Landscaping and Boundary Protection	NA	NA		Not Applicable to Building Type	
Mat 03	Responsible Sourcing of Materials	NA	NA		<p>Pre-requisite</p> <p>There is a mandatory requirement that all timber and timber based products are legally harvested and traded.</p>	This is a pre-requisite and will require appropriate certification to be provided for all timber used on site.
		1	1		<p>One credit - Sustainable Procurement Plan</p> <p>The principal contractor is to source materials for the project in accordance with a documented sustainable procurement plan</p>	This will require the principle contractor to source materials in accordance with a documented sustainable procurement plan.
		3	2		<p>One-Three Credits - Responsible Sourcing of Materials</p> <p>One credit can be awarded where at least three of the material types listed in Table 53 of the BREEAM technical Guide (attached) below have been responsibly sourced from one of the responsible sourcing schemes recognised by BREEAM</p> <p>Up to three of the available RSM credits can be awarded where the applicable building materials are responsibly sourced in accordance with the BREEAM methodology.</p> <p>3 Credits - 54% of RSM Points Achieved / 2 Credits - 36% of RSM Points Achieved / 1 Credit - 18% of RSM Points Achieved</p>	Materials will need to be procured with the appropriate responsible sourcing certification, at this stage, a medium 2 of the 3 credits under this section has been assumed.
Mat 04	Insulation	1	1		<p>One Credit - Embodied Impact</p> <p>The Insulation Index for the building fabric and service insulation is the same as or greater than 2.5. All new insulation must be assessed including that provided to; external walls, ground floor, roof and building services.</p>	This credit should be achievable with the specification of suitable insulation materials.
Mat 05	Designing for Durability and Resilience	1	1		<p>One Credit - Design for Durability and Resilience</p> <p>The building should incorporate suitable durability and protection measures or designed features/solutions to prevent damage to vulnerable parts of the internal and external building and landscaping elements.</p> <p>This must include, but is not necessarily limited to:</p> <ul style="list-style-type: none"> Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc.); Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring occurs within 1m of the external building façade for all car parking areas and within 2m for all delivery areas. <p>A study is also required that reviews materials used exposed to environmental factors, demonstrating how they meet performance requirements - Not required if Part 1 is not being undertaken.</p>	This credit will be sought by the appropriate selection of materials and completion of the required study.

Project	8-9 Spring Gardens	Unweighted			Credit Requirements	Comments
		Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
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Mat 06	Material Efficiency	1	1		<p>One Credit - Material Efficiency Recognising and encouraging measures to optimise material efficiency in order to minimise environmental impact of material use and waste.</p> <p>Where opportunities have been identified, and appropriate measures investigated and implemented within the scope of refurbishment or fit-out works, to optimise the use of materials through building design, procurement, refurbishment, maintenance and end of life</p> <p>The above is carried out by the design/construction team in consultation with the relevant parties at each of the following RIBA stages:</p> <ol style="list-style-type: none"> Preparation and Brief Concept Design Developed Design Technical Design Construction. 	<p>RIBA 1/2 Stage Requirement</p> <p>Requires the appropriate study to have been started at RIBA stage 1 which will then be reviewed throughout the RIBA stages, this could however be undertaken now and suitably back dated, and should be considered to meet the high rating required.</p>
Total Unweighted Credits		13	10	0		
Weighting		16.12				
Total Weighted Score		12.40	12.40			

WASTE						
Wst 01	Project Waste Management	1	1		<p>One Credit - Pre-refurbishment audit</p> <p>A pre-refurbishment audit of all existing buildings, structures or hard surfaces within the scope of the refurbishment or fit-out zone is completed.</p> <p>The audit should be carried out at the Concept Design Stage (equivalent to RIBA stage 2) prior to strip-out or demolition works in order to use the audit results to guide the design, consideration of materials that can be reused, and to set targets for waste management and ensure all contractors are engaged in the process of maximising high grade reuse and recycling opportunities.</p>	<p>RIBA 1/2 Stage Requirement</p> <p>Will require a pre-refurbishment audit to be carried out at the concept design stage.</p>
		2	0	1	<p>One-Two Credits - Reuse and direct recycling of materials</p> <p>Credit scoring is achieved by ensuring waste material types are either directly re-used on-site or off-site or are sent back to the manufacturer for closed loop recycling</p> <p>One credit can then be achieved where 50% of the total available points for the waste material types present on the project have been achieved using the was 01 calculator tool.</p> <p>Two credits can be achieved where 75% of the total available points for the waste material types that are present on the project have been achieved</p>	<p>This may be difficult to achieve, however at least 1 credit should be considered as a possible uplift to meet the target rating.</p>
		3	3		<p>One-Three Credits - Resource efficiency</p> <p>Develop and implement a compliant resource management plan covering the waste arisings from the refurbishment or fit-out project with the aim of minimising waste, recording and reporting accurate data on waste arisings.</p>	<p>Would require a SWMP to have been in place, therefore this credit is at risk.</p>
		1	1		<p>One Credit - Diversion of resources from landfill</p> <p>The contractor is to ensure that at least 90% by weight (or 85% by volume) of site generated waste is diverted from landfill. This should be proved in form of a Site Waste Management Plan (SWMP).</p> <p>An Innovation credit is available where at least 97% by weight (or 95% by volume) of site generated waste is diverted from landfill.</p>	<p>This credit will be targeted with the appropriate level of waste diverted from land fill.</p>
Wst 02	Recycled Aggregates	NA	NA		No longer an applicable credit under the 2014 scheme.	
Wst 03	Operational Waste	1	1		<p>One Credit - Operational Waste</p> <p>There should be dedicated space provided for the segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s) and activities.</p>	<p>The refuse area would need to be appropriate sized and labelled for the recycling waste streams.</p>
Wst 04	Speculative Finishes	NA	NA		<p>One Credit - Speculative floor and ceiling finishes</p> <p>For tenanted areas (where the future occupant is not known), prior to full fit-out works, new interior finishes (including carpets, other floor finishes, ceiling finishes and any other interior finishes) have been installed in a show area only.</p> <p>In a building being refurbished or fitted out for a specific occupant, that occupant has selected (or agreed to) the specified interior finishes.</p>	<p>Not applicable since not a speculative scheme.</p>
Wst 05	Adaptation to Climate Change	NA	NA		<p>One Credit - Adaptation to climate change</p> <p>A climate change adaptation strategy appraisal for structural and fabric resilience has been conducted by the end of Concept Design (RIBA Stage 2 or equivalent).</p>	<p>Not applicable since not works being undertaken to the external fabric</p>
Wst 06	Functional Adaptability	1	1		<p>One credit - Functional adaptability</p> <p>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.</p>	<p>RIBA 1/2 Stage Requirement</p> <p>A functional adaptability study will need to be developed by concept stage to achieve this credit which is recommended to meet the target rating.</p>
Total Unweighted Credits		9	7	1		
Weighting		7.25				
Total Weighted Score		5.64	6.44			

LAND USE AND ECOLOGY						
Le 01	Site Selection	NA	NA		Not applicable to this assessment	
Le 02	Protection of Ecological Features	NA	NA		<p>One credit - Protection of ecological features</p> <p>All existing features of ecological value within and surrounding the refurbishment or fit-out zone and site boundary area are adequately protected from damage during clearance, site preparation and refurbishment or fit-out activities in line with BS42020: 2013.</p> <p>In all cases, the principal contractor is required to construct ecological protection recommended by the Suitably Qualified Ecologist (SQE), prior to any preliminary site refurbishment or fit-out or preparation works (e.g. erection of temporary site facilities).</p>	<p>This credit is not applicable since there are no existing landscaping areas within the scope of the refurbishment.</p>
Le 03	Minimising Impact on Existing Site Ecology	NA	NA		This issue is not applicable to BREEAMUK Refurbishment and Fit-out 2014	

Project	8-9 Spring Gardens	Unweighted			Credit Requirements	Comments
		Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
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Le 04	Enhancing Site Ecology	NA	NA		<p>One Credit - Ecologist's report and recommendations</p> <p>A suitably qualified ecologist (SQE) has been appointed by the end of the Preparation and Brief stage (RIBA Stage 1 or equivalent) to advise on enhancing the ecology of the site.</p> <p>The SQE has provided an Ecology Report with appropriate recommendations for the enhancement of the site's ecology at Concept Design stage. The report is based on a site visit/survey by the SQE.</p> <p>The early stage advice and recommendations of the Ecology Report for the enhancement of site ecology have been, or will be, implemented in the refurbishment or fit-out.</p>	This credit is not applicable since there are no existing landscaping areas within the scope of the refurbishment.
Le 05	Long Term Impact on Biodiversity	2		2	<p>One-Two Credits - Long term impact on biodiversity</p> <p>A Suitably Qualified Ecologist (SQE) is appointed prior to commencement of activities on-site and they confirm that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the refurbishment or fit-out process.</p> <p>A landscape and habitat management plan, appropriate to the site, is produced covering at least the first five years after project completion, this is handed over to the building owner/occupants for use by the grounds maintenance staff.</p> <p>Additional measures to improve the assessed site's long term biodiversity are adopted.</p>	<p>RIBA 1/2 Stage Requirement</p> <p>This will require the appointment of an ecologist to carry out a survey at RIBA stage 1 and make recommendations on improving the sites ecology that must be implemented.</p> <p>The plans currently do not show any ecological enhancements, however, this should be considered to reach the target score.</p>
Total Unweighted Credits		2	0	2		
Weighting			5.16	0		
Total Weighted Score			0.00	5.16		

POLLUTION						
Pol 01	Impact of Refrigerants	NA	NA		<p>Pre-requisite</p> <p>All systems (with electric compressors) must comply with the requirements of BS EN378:20081 (parts 2 and 3) and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice</p>	Pre-requisite required to obtain any credits under this criteria.
		NA	NA		<p>Three Credits - The Building uses no refrigerants</p>	It is anticipated that heat pumps will be used, therefore the full three credits will not be achieved.
		2	1		<p>One-Two Credits - Impact of refrigerant</p> <p>Where the systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELCCO2e) of ≤ 1000 kgCO2e/kW cooling/heating capacity or where air-conditioning or refrigeration systems are installed the refrigerants used have a Global Warming Potential (GWP) ≤ 10.</p>	At least one credit should be achievable by the heat pump system
		1	0		<p>One Credit - Leak detection</p> <p>Where systems using refrigerants have a permanent automated refrigerant leak detection system installed or where an in built automated diagnostic procedure for detecting leakage is installed. In all instances a robust and tested refrigerant leak detection system must be installed and must be capable of continuously monitoring for leaks. The system must be capable of automatically isolating and containing the remaining refrigerant(s) charge in response to a leak detection incident</p>	The required type of leak detection required is not feasible to be provided on the systems likely to be provided, this will be reviewed as the design progresses.
Pol 02	NOx Emissions	3	0		<p>One-Three Credits - NOx emissions</p> <p>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: ≤ 100 mg/kWh: 1 credit ≤ 70 mg/kWh: 2 credits ≤ 40 mg/kWh: 3 credits</p>	It is expected that the development would need to use heat pumps to meet the heating and hot water needs to comply with planning requirements, therefore this credit cannot be targeted. Base electrical grid NOx levels are 1200mg/kWh
Pol 03	Flood Risk Management and Reducing Surface Water Run Off	2	2		<p>One-Two Credits - Flood risk management</p> <p>Low flood risk: Where flood maps from the appropriate statutory body (see Relevant definitions) confirm the refurbishment or fit-out is situated in a flood zone that is defined as having a low annual probability of flooding</p> <p>Medium/high flood risk: Where flood maps from the appropriate statutory body confirm the site has a medium or high flood risk and a site specific FRA has been undertaken.</p> <p>The refurbishment or fit-out zone achieves avoidance from flooding through either: The refurbishment and fit-out zone is located entirely on the first floor or above and a flood emergency plan has been developed in accordance with 'Would your business stay afloat? A Guide to preparing your business for flooding', Environment Agency, 2011 Or, where avoidance is not possible, two credits are achieved where a full flood resilience/resistance strategy is implemented for the building's scope of works in accordance with recommendations made by a Suitably Qualified Building Professional.</p>	It is assumed that the credit requirements can be met, however, this will require the production of a flood risk management plan, which considers all sources of flooding.
		NA	NA		<p>Two Credits - Surface water run-off</p> <p>One Credit - neutral impact on surface water There is no increase in the impermeable surfaces as a result of the refurbishment works; OR If there is an increase in the impermeable surface as a result of the refurbishment works then additional run-off must be managed on-site using appropriate SuDS techniques.</p> <p>Two Credits - Reducing run-off An Appropriate Consultant has been used to design an appropriate drainage strategy for the site to reduce the peak rate of run-off.</p>	Not applicable since no Part 1 assessment
		NA	NA		<p>One Credit - Minimising water course pollution</p> <p>There is no discharge from the developed site (includes new and existing hard landscaping and buildings) for rainfall up to 5mm (confirmed by the Appropriate Consultant). Where suitable pollution prevention measures are put in place (or already exist) for the different sources of pollution present on the assessed site A comprehensive and up to date drainage plan of the site will be made available for the building/site occupiers. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.</p>	Not applicable since no Part 1 assessment

		Unweighted			Credit Requirements	Comments
Project	8-9 Spring Gardens	Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
Date	13/11/2024					
Pol 04	Reduction of Night Time Light Pollution	1	1		<p>One credit - Night Time Pollution</p> <p>Credit awarded 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.</p> <p>Alternatively, where the building does have external lighting, one credit can be awarded with the following criteria: The external lighting strategy has been designed in compliance with Table 2 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 ILP PLG05 The Brightness of Illuminated Advertisements.</p>	The specification of external lighting will meet the credit requirements.

		Unweighted			Credit Requirements	Comments
Project	8-9 Spring Gardens	Credits Available	Credits Targeted	Potential Uplift Credits		
Version	RFO 2014					
Date	13/11/2024					
Pol 05	Reduction of Noise Pollution	1	1		<p>One Credit - Noise Impact Assessment</p> <p>A noise impact assessment in compliance with BS 7445:1 is to be carried out and the following noise levels measured/determined: Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed development or at a location where background conditions can be argued to be similar. The rating noise level resulting from the new noise source The noise impact assessment must be carried out by a suitably qualified acoustic consultant holding a recognised acoustic qualification and membership of an appropriate professional body (see Relevant definitions in the Additional information section). The noise level from the proposed site/building, as measured in the locality of the nearest or most exposed noise-sensitive development, is a difference no greater than +5dB during the day (07:00 to 23:00) and +3dB at night (23:00 to 07:00) compared to the background noise level.</p>	Will require appropriate study and testing to be incorporated.
Total Unweighted Credits		10	5	0		
Weighting		9.92				
Total Weighted Score		4.96		4.96		
Total Targeted Score		66.76		78.45		
Target Rating		Very Good		Excellent		

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