



PROPOSED OFFICE DEVELOPMENT
at
9, 11 & 19 OSIERS ROAD, WANDSWORTH, SW18 1NL

BREEAM 2018 Pre-Assessment

Prepared by Stroma Built Environment
on behalf of Hollybrook Limited

September 2019
69563

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Assessment type:

Revised pre-assessment

1. Introduction and methodology

This BREEAM Pre-Assessment has been prepared for the Applicant, Hollybrook Ltd, by Stroma Built Environment, a construction consultancy specialising in sustainability, energy conservation and the application of renewable energy technologies. The development is located at 9, 11 & 19 Osiers Road, Wandsworth, SW18 1NL in the London Borough of Wandsworth. It has been revised from shell and core, to shell only, following consultation with the design team, which concluded that tenants will be fitting out each unit.

The revised BREEAM Pre-Assessment covers the office units, which will achieve BREEAM “Excellent”, as required by Wandsworth Council’s Local Plan Core Strategy Policy DMS3 and the planning conditions for the project.

This Pre-Assessment has been conducted based upon the current drawings and specifications and those BREEAM issues that have the potential to be achieved if changes to the current design is implemented. Note that the award of each credit is dependent upon satisfactory evidence being supplied by the Client, Design Team and Contractor to the BREEAM assessor.

For the purposes of this report, the BREEAM Pre-Assessment covers the office units which are expected to complete to a shell only standard.

2. BREEAM New Construction 2018

The BREEAM New Construction scheme can be used to assess the environmental life cycle impacts of new non-domestic buildings at the design and construction stages. “New Construction” is defined as development that results in a new standalone structure or new extension to an existing structure, which will come into operation for a first time upon completion. A variety of non-domestic buildings can be assessed. These are listed within the BREEAM New Construction 2018 Manual.

BREEAM New Construction 2018 is not specifically designed to cater for the assessment of refurbishment or fit-out projects. The scheme can be however applied to major refurbishments.

The BREEAM Assessment can be undertaken at three stages, the 2018 scheme now offers an optional 4th stage:

1. Pre-Assessment stage – initial assessment of possible credits
2. Design Stage – leading to an interim BREEAM certified rating
3. Post-Construction Stage – leading to a Final BREEAM rating
4. Post-Occupancy Stage (optional) – carried out 12 months after occupation

There are a number of elements that determine the overall performance of a new construction project assessed using BREEAM, these are as follows:

1. The BREEAM rating level benchmarks
2. The minimum BREEAM standard
3. The environmental section weighting
4. The BREEAM assessment issues and credits

The BREEAM rating benchmarks for new construction projects and major refurbishments are assessed using the 2018 scheme are as follows:

| Rating | % Score |
|--------------|---------|
| Unclassified | <30 |
| Pass | 30 |
| Good | 45 |
| Very good | 55 |
| Excellent | 70 |
| Outstanding | 85 |

This is determined from the total number of BREEAM criteria met and their respective environmental weightings.

The weightings for each of the nine environmental sections included in the BREEAM New Construction scheme (shell only) are as follows:

| Issue Category | Weighting |
|-------------------------|------------------|
| Management | 12.00% |
| Health and Wellbeing | 7.00% |
| Energy | 9.50% |
| Transport | 14.50% |
| Water | 2.00% |
| Materials and Waste | 22.00% |
| Waste | 8.00% |
| Land Use and Ecology | 19.00% |
| Pollution | 6.00% |
| Total | 10.00% |
| Innovation (additional) | 12.00% |

To maintain a flexible system BREEAM adopts a “balanced score-card” approach to the assessment and rating of building performance. This means that, to achieve a particular level of performance the majority of BREEAM credits can be traded, i.e. non-compliance in one area can be off-set through compliance in other to achieve the target BREEAM rating.

However, to ensure that performance against fundamental environmental issues is not overlooked in pursuit of a particular environmental objective, BREEAM sets minimum standards of performance in key areas.

To achieve a particular BREEAM rating, in addition to the minimum overall percentage score that must be achieved, the minimum standards, detailed in the table below must also be complied with:

Table 1 Minimum Standards

| BREEAM Issue | Minimum standards by BREEAM rating level | | | | |
|--|--|------------------|---|---|---|
| | Pass | Good | Very Good | Excellent | Outstanding |
| Man 03 Responsible construction practices | - | - | - | 1 credit (Responsible Construction Management) | 2 credits (Responsible Construction Management) |
| Man 04 Commissioning and handover | - | - | 1 credit (commissioning - test schedule and responsibilities) Plus criterion 11 Building User Guide | 1 credit (commissioning - test schedule and responsibilities) Plus criterion 11 Building User Guide | 1 credit (commissioning - test schedule and responsibilities) Plus criterion 11 Building User Guide |
| Man 05 Aftercare | - | - | - | 1 credit (Commissioning - implementation) | 1 credit (Commissioning implementation) |
| Ene 01 Reduction of energy use and CO₂ emissions | - | - | - | 4 credits (energy performance) | 6 credits (energy performance) & 4 credits (energy modelling & reporting) |
| Ene 02 Energy monitoring | - | - | 1 credit (1 st sub-metering credit) | 1 credit (1 st sub-metering credit) | 1 credit (1 st sub-metering credit) |
| Wat 01 Water consumption | - | 1 credit | 1 credit | 1 credit | 2 credits |
| Wat 02 Water monitoring | - | Criterion 1 only | Criterion 1 only | Criterion 1 only | Criterion 1 only |
| Mat 03 Responsible sourcing of materials | Criterion 1 only | Criterion 1 only | Criterion 1 only | Criterion 1 only | Criterion 1 only |
| Wst 01 Construction waste management | - | - | - | - | 1 credit |
| Wst 03 Operational Waste Storage | - | - | - | 1 credit | 1 credit |

3. Score summary

Office – shell only

| | Credits available | Credits achieved | % credits achieved | Section weighting | Section score |
|---------------------------|-------------------|------------------|--------------------|-------------------|---------------|
| Management | 15 | 14 | 93.33 | 12.00 | 11.20 |
| Health & wellbeing | 8 | 4 | 50.00 | 7.00 | 3.50 |
| Energy | 13 | 6 | 46.15 | 9.50 | 4.38 |
| Transport | 12 | 8 | 66.67 | 14.50 | 9.66 |
| Water | 3 | 3 | 100.00 | 2.00 | 2.00 |
| Materials | 14 | 10 | 71.43 | 22.00 | 15.71 |
| Waste | 10 | 8 | 80.00 | 8.00 | 6.40 |
| Land use & ecology | 13 | 11 | 84.62 | 19.00 | 16.07 |
| Pollution | 6 | 3 | 50.00 | 6.00 | 3.00 |
| Innovation | 10 | 1 | 10.00 | 10.00 | 1.00 |
| TOTAL BREEAM SCORE | | | | | 72.94% |

4. BREEAM 2018 Pre-assessment - Osiers Road

| | | | Office - shell only | | | |
|--|---|---|---------------------|----------------|-------------------|--|
| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
| Category 1: Management (each credit = 0.8%) | | | | | | |
| Man 01: Project brief and design | Project delivery planning | <p>1 Prior to completion of the Concept Design, the project delivery stakeholders (see Definitions) meet to identify and define for each key phase of project delivery:</p> <p>1.a: Roles 1.b: Responsibilities 1.c: Contributions.</p> <p>2 Consider each one of the following items when defining roles, responsibilities and contributions for each key phase of the project:</p> <p>2.a: End user requirements 2.b: Aims of the design and design strategy 2.c: Particular installation and construction requirements or limitations 2.d: Occupiers' budget and technical expertise in maintaining any proposed systems 2.e: Maintainability and adaptability of the proposals 2.f: Operational energy (see Ene 01 Reduction of energy use and carbon emissions) 2.g: Requirements for the production of project and end user documentation 2.h: Requirements for commissioning, training and aftercare support.</p> <p>Where the building occupants are not known, the list of considerations above still applies. The appropriate project delivery stakeholder considers each item, based on likely scenarios of building occupancy.</p> <p>3 The project team demonstrates how the project delivery stakeholders' contributions and the consultation process outcomes influence the following:</p> <p>3.a: Initial Project Brief 3.b: Project Execution Plan (see Definitions) 3.c: Communication Strategy (see Definitions)</p> | 1 | 1 | | Design team has met from an early RIBA Stage (RIBA 2) and consultation on the project delivery has been carried out and consequentially influenced design, |
| | Stakeholder consultation (interested parties) | <p>4 Prior to completion of the Concept Design, the design team consult with all interested parties (see Definitions) on matters that cover the minimum consultation content (see Methodology).</p> <p>5 Demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design.</p> <p>6 Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties (see Definitions) give and receive consultation feedback.</p> | 1 | 1 | | Third party consultation anticipated. Needed by RIBA 2, then feedback given by RIBA 4. |
| | BREEAM AP pre-requisite | The project team, including the client, formally agree strategic performance targets early in the design process, | | | | |
| | BREEAM AP (Concept Design) | <p>9 Involve a BREEAM AP in the project at an appropriate time and level to:</p> <p>9.a: Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM, from their appointment and throughout Concept Design 9.b: Monitor progress against the performance targets (see Definitions) agreed under criterion 8 throughout all stages after their appointment where decisions critically impact BREEAM performance. 9.c: Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. 9.d: Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. 9.e: Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.</p> | 1 | 1 | | A BREEAM AP must be appointed at Concept Stage and the performance targets agreed Stroma Appointed as BREEAM AP |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|--|--|---|-------------------|----------------|-------------------|--|
| | BREEAM AP (Developed Design) | <p>10 Criteria 8 and 9 are achieved.</p> <p>11 Involve the BREEAM AP in the project at an appropriate time and level to:</p> <p>11.a: Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the project's overall performance against BREEAM throughout Developed Design.</p> <p>11.b: Monitor progress against the performance targets agreed under criterion 8 throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance.</p> <p>11.c: Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8.</p> <p>11.d: Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets.</p> <p>11.e: Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.</p> | 1 | 1 | | <p>Continued with the AP through developed design</p> <p>Stroma Appointed as BREEAM AP</p> |
| Man 02: Life cycle cost and service life planning | Elemental life cycle cost (LCC) | <p>1 A competent person (see Definitions) carries out an outline, entire asset LCC plan at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865: 20081.</p> <p>2 The elemental LCC plan:</p> <p>2.a: Provides an indication of future replacement costs over a period of analysis as required by the client (e.g. 20, 30, 50 or 60 years);</p> <p>2.b: Includes service life, maintenance and operation cost estimates.</p> <p>The study period should ideally be agreed by the client, in line with the design life expectancy of the building. However, where the life expectancy of the building is not yet formally agreed (due to being at very early design stages), the default design life of 60 years should be used for modelling purposes (in line with the UK default).</p> <p>3 Demonstrate, using appropriate examples provided by the design team, how the elemental LCC plan has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.</p> | 2 | 2 | | <p>LCC analysis required at Concept Stage</p> <p>Stroma appointed to undertake LCC.</p> |
| | Component level LCC options appraisal | <p>4 A competent person develops a component level LCC options appraisal by the end of Process Stage 4 (equivalent to Technical Design – RIBA Stage 4) in line with PD 156865: 2008. The component level LCC includes (where present):</p> <p>4.a: Envelope, e.g. cladding, windows, or roofing</p> <p>4.b: Services, e.g. heat source, cooling source, or controls</p> <p>4.c: Finishes, e.g. walls, floors or ceilings</p> <p>4.d: External spaces, e.g. alternative hard landscaping, boundary protection.</p> <p>5 Demonstrate, using appropriate examples provided by the design team, how the component level LCC options appraisal has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.</p> | 1 | 1 | | <p>Technical Stage LCC analysis - Would need to be undertaken by end of RIBA 4 (Technical Design)</p> <p>Stroma appointed to undertake LCC.</p> |
| | Capital cost reporting | <p>5. Report the capital cost for the building in pounds per square metre (£/m²), via the BREEAM Assessment Scoring and Reporting tool, Assessment Issue Scoring tab, Management section.</p> | 1 | 1 | | <p>Capital cost of the project to be reported</p> |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|--|-------------------------------------|--|-------------------|----------------|-------------------|---|
| Man 03: Responsible construction practices | Environmental Management | <p>3 All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations. The EMS must: 3.a: Be third party certified, to ISO 14001: 20151, EMAS (EU Eco-Management and Audit Scheme) or equivalent standard; OR 3.b: In compliance with BS 8555: 20162 have: 3.b.i Appropriate structure 3.b.ii Reached implementation stage phase four 'implementation and operation of the environmental management system' 3.b.iii Completed defined phase audits one to four.</p> <p>4 All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines</p> | 1 | 0 | | <p>The contractor and demolition contractor will operate an EMS (ISO14001 or equivalent) and provide onsite pollution prevention guidance.</p> <p>Not achievable as Hollybrook do not have an EMS.</p> |
| | BREEAM AP (site) | <p>6 Involve a BREEAM AP in the project at an appropriate time and level to:</p> <p>6.a: Work with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving and if possible going beyond the design intent, to maximise the project's performance against the agreed performance targets throughout the Construction, Handover and Close Out stages. 6.b: Monitor construction progress against the performance targets agreed under criterion 5 throughout all stages where decisions critically impact BREEAM performance. 6.c: Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5. 6.d: Provide feedback to the constructors and the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. 6.e: Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor.</p> | 1 | 1 | | <p>AP is involved at construction stage, this credit could be awarded.</p> <p>Stroma Appointed as BREEAM AP</p> |
| | Responsible construction management | <p>For one credit: Achieve 9 items from Table 4.1 - Responsible Construction Management Items. For two credits: Achieve the six additional items in the table</p> <p>Minimum Standard for BREEAM Excellent: One credit.</p> | 2 | 2 | | <p>Refer to table 4.1 - complete all ticked items, plus six additional items. CCS registration will cover all items required, apart from item 'g' which relates to 'Ensure clear and safe access in and around the buildings at the point of handover'.</p> |
| | | 10 Assign responsibility to an individual for monitoring, recording and reporting energy use, water consumption and transportation data (where measured) resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme. To ensure the robust collection of information, this individual must have the appropriate authority and responsibility to request and access the data required. Where appointed, the BREEAM AP could perform this role. | pre-requisite | | | |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|-----------|--|--|-------------------|----------------|-------------------|---|
| | Monitoring of construction site impacts | <p>First monitoring credit - Utility consumption</p> <p>Energy consumption</p> <p>11 Achieve criterion 10.</p> <p>12 Set targets for the site energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation.</p> <p>13 Monitor and record data for the energy consumption described in criterion 12.</p> <p>14 Report the total carbon dioxide emissions (total kgCO₂/project value) from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).</p> <p>Water consumption</p> <p>15 Achieve criterion 10.</p> <p>16 Set targets for the potable water consumption (m³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation.</p> <p>17 Monitor and record data for the potable water consumption described in criterion 16.</p> <p>18 Use the collated data to report the total net water consumption (m³), i.e. consumption minus any recycled water use from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance</p> | 1 | 1 | | All on site water and energy usage shall be monitored by the contractor and recorded against relevant KPI for the site. Please ensure that targets are set. |
| | | <p>Second monitoring credit - transportation of construction materials and waste</p> <p>19 Achieve criterion 10.</p> <p>20 Set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum cover:</p> <p>20.a: transportation of materials from the point of supply to the building site, including any transport, intermediate storage and point of supply (see Definitions). Monitor as a minimum:</p> <p>20.a.i Materials used in major building elements (i.e. those defined in BREEAM issue Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)).</p> <p>20.a.ii Ground works and landscaping materials.</p> <p>20.b: transportation of construction waste from the construction gate to waste disposal processing or recovery centre gate. This monitoring must cover the construction waste groups outlined in the project's resource management plan.</p> <p>21 Monitor and record data for the transportation movements as described in criterion 20.</p> <p>22 Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions (kgCO₂-eq), plus total distance travelled (km) via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).</p> | 1 | 1 | | On site monitoring of transport for deliveries to site and waste removal from site. Please ensure that targets are set for transport movements. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|--|---|---|-------------------|----------------|-------------------|--|
| Man 04: Commissioning and handover | Testing and inspecting building fabric | 8 Achieve criteria 1 to 5. | 1 | 1 | | Air permeability and thermographic testing to be carried out to achieve this credit. Please confirm if this is possible for the commercial units. |
| | | 9 Complete post-construction testing and inspection to quality-assure the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths (this is through airtightness testing and a thermographic survey). A suitably qualified professional (see Definitions) undertakes the survey and testing in accordance with the appropriate standard. | | | | |
| | | 10 Rectify any defects identified during post-construction testing and inspection prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building or element as defined at the design stage | | | | |
| Category 2: Health and wellbeing (each credit = 0.875%) | | | | | | |
| Hea 01: Visual comfort | Daylighting | 4 Daylighting criteria have been met using either of the following options: 4.a: The relevant building areas meet good practice daylight factors and other criteria as outlined in Table 5.1 and Table 5.2 OR 4.b: The relevant building areas meet good practice average and minimum point daylight illuminance criteria as outlined in Table 5.3. | 2 | 0 | | Minimum daylight levels to be achieved. Calculations would be required to show this. Not anticipated for this project as no internal layouts available for commercial areas. |
| | View out | 5 95% of the floor area in 95% of spaces for each relevant building area is within 8 m of an external wall. The external wall has a window or permanent opening that provides an adequate view out. 6 The window or opening must be ≥ 20% of the surrounding wall area (refer to Definitions). Where the room depth is greater than 8 m, compliance is only possible where the percentage of window or opening is the same as, or greater than, the values in Table 1.0 of BS 8206: part 21. 7 In addition, the building type criteria in Table 5.6 are applicable to view out criteria. | 1 | 0 | | Not anticipated for this project as no internal layouts available for commercial areas. |
| | Internal and external lighting levels, zoning and control | External lighting 10 All external lighting located within the construction zone is specified in accordance with BS 5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas4 and BS EN 12464-2:20145 Light and lighting - Lighting of work places - Part 2: Outdoor work places. External lighting should provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. 11 Where no external light fittings are specified (either separate from or mounted on the external building façade or roof), the criteria relating to external lighting do not apply and the credit can be awarded on the basis of compliance with criteria 8–9.c. | 1 | 1 | | External lighting to be specified as per the guidelines laid out in the SLL Code for Lighting 2012. |
| Hea 05: Acoustic performance | | 1. The building meets the appropriate acoustic performance standards and testing requirements defined in the checklists and tables section which defines criteria for the acoustic principles of: b. Indoor ambient noise level | 1 | 1 | | An acoustician will be appointed to ensure Indoor ambient noise levels comply with the relevant criteria for the commercial units. The acoustician must confirm that the developer's works will enable a future tenant utilising a typical fit-out to meet those requirements. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|--------------------------------------|-------------------------------|--|-------------------|----------------|-------------------|--|
| Hea06: Security | Security of site and building | <p>1 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). The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development .</p> <p>2 The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA.</p> <p>3 The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS.</p> | 1 | 1 | | <p>An SQSS will be consulted and the recommendation to be incorporated into the design. Consultation needs to have started by end of RIBA 2 (Concept Design)</p> <p>Proof to be provided that recommendation implemented, or if not, justification as to why and acceptance by security consultant.</p> |
| | Exemplary level criteria | 4 A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification. | 1 | 0 | | Not anticipated. |
| Hea07: Safe and healthy surroundings | Safe access | <p>Where external site areas form part of the assessed development the following apply:</p> <p>1 Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to off-site cycle paths where applicable.</p> <p>2 Dedicated and safe footpaths are provided on and around the site providing suitable links for the following:</p> <p>2.a: The site entrance to the building entrance,</p> <p>2.b: Car parks (where present) to the building entrance</p> <p>2.c: The building to outdoor space</p> <p>2.d: Connecting to off-site paths where applicable.</p> <p>3 Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths.</p> <p>Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply:</p> <p>4 Delivery areas are not accessed through general parking areas and do not cross or share the following:</p> <p>4.a: pedestrian and cyclist paths</p> <p>4.b: outside amenity areas accessible to building users and general public.</p> <p>5 There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking.</p> <p>6 Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access</p> | 1 | 0 | | Not anticipated due to site layout. Layout to be checked by Architect / Design Team. |
| | Outside space | 7 There is an outside space providing building users with an external amenity area. | 1 | 1 | | Provide an outside space for the commercial building users. Must be away from main roads, noise and other sources of pollution |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|--|----------------------------------|--|-------------------|----------------|-------------------|---|
| Category 3: Energy (each credit = 0.73%) | | | | | | |
| Ene 01: Reduction of energy use and carbon emissions | Energy performance | 1 Calculate an Energy Performance Ratio for New Construction (EPR NC). Compare the EPR NC achieved with the benchmarks in Table 6.1 and award the corresponding number of BREEAM credits. Minimum Standard for BREEAM Excellent: Four credits. | 9 | 4 | | Minimum Standard for BREEAM Excellent of four credits targeted. To be confirmed once design SBEM produced. |
| Ene 03: External lighting | | 1 No external lighting (which includes lighting on the building, at entrances and signs). OR 2 External light fittings within the construction zone with: 2.a: Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt 2.b: Automatic control to prevent operation during daylight hours 2.c: Presence detection in areas of intermittent pedestrian traffic. | 1 | 1 | | Low energy external lighting to be provided appropriately controlled to prevent operation in daylight hours. Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt. |
| Ene 04: Low carbon design | Low and zero carbon technologies | 9 An energy specialist (see Definitions) completes a feasibility study (see Low and zero carbon feasibility study) by the end of Concept Design. 10 Establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy sources for the building or development (see Scope of LZC systems and how they are assessed), based on the feasibility study. 11 Specify local LZC technologies for the building or development in line with the feasibility study recommendations. 12 Quantify the reduced regulated carbon dioxide (CO ₂) emissions resulting from the feasibility study. | 1 | 1 | | Feasibility study to be completed & provided. Needs to have been completed by end of RIBA 2. |
| Category 4: Transport (each credit = 1.208%) | | | | | | |
| Tra 01: Transport assessment and travel plan | Travel plan | 1 During the feasibility and design stages, develop a travel plan based on a site-specific travel assessment or statement. 2 The site-specific travel assessment or statement covers as a minimum: 2.a: Existing travel patterns and opinions of existing building or site users towards cycling and walking, identifying constraints and opportunities, if relevant 2.b: Travel patterns and transport impact of future building users 2.c: Current local environment for walkers and cyclists (accounting for visitors who may be accompanied by young children) 2.d: Reporting of the number and type of existing accessible amenities, see Table 7.1, within 500m of the site 2.e: Disabled access (accounting for varying levels of disability and visual impairment) 2.f: Calculation of the existing public transport Accessibility Index (AI), see Methodology 2.g: Current facilities for cyclists 3 The travel plan includes proposals to increase or improve sustainable modes of transport and movement of people and goods during the building's operation and use, see Methodology. 4 If the occupier is known, involve them in the development of the travel plan. 5 Demonstrate that the travel plan will be implemented post construction and be supported by the building's management in operation.. | 2 | 2 | | Produce a BREEAM compliant travel plan - needs to have been developed during feasibility and design stage of the project. |
| Tra 02: Sustainable transport measures | | Prerequisite 1 Achieve the Tra 01 Transport assessment and travel plan credits 2 Identify the sustainable transport measures, see Table 7.4. 3 Award credits according to the Accessible Index (AI) of the project, and the total number of points achieved for the options implemented, see Table 7.3. | 10 | 6 | | Credit section requires review to determine number of credits applicable RISK - requires review of criteria. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|--|------------------------------|--|-------------------|----------------|-------------------|---|
| Category 5: Water (each credit = 0.67%) | | | | | | |
| Wat 02: Water monitoring | | <p>1 Specify a water meter on the mains water supply to each building. This includes instances where water is supplied via a borehole or other private source.</p> <p>2 For water-consuming plant or building areas consuming 10% or more of the building's total water demand:</p> <p>2.a: Fit easily accessible sub-meters OR</p> <p>2.b: Install water monitoring equipment integral to the plant or area.</p> <p>3 For each meter (main and sub):</p> <p>3.a: Install a pulsed or other open protocol communication output AND</p> <p>3.b: Connect it to an appropriate utility monitoring and management system, e.g. a building management system (BMS), for the monitoring of water consumption. If there is no BMS system in operation at Post-Construction stage, award credits provided that the system used enables connection when the BMS becomes operational.</p> <p>4 In buildings with swimming pools, or large water tanks and aquariums, fit separate sub-meters on the water supply of the above and any associated changing facilities (toilets, showers etc.) irrespective of their water consumption levels.</p> <p>5 In buildings containing laboratories, fit a separate water meter on the water supply to any process or cooling loop for 'plumbed-in' laboratory process equipment, irrespective of their water consumption levels.</p> <p>Additionally for those pursuing a post occupancy stage certification:</p> <p>6 The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (litres/person/day), if a post occupancy stage certification is sought.</p> <p>Minimum Standard for BREEAM Excellent: Criterion 1 above.</p> | 1 | 1 | | A meter will be specified on the mains incoming water supply to the building and this will be fitted with a pulsed output to enable connection to a BMS. Future provision made available for the office shell unit(s) |
| Wat 03: Water leak detection | Leak detection system | <p>1 Install a leak detection system capable of detecting a major water leak:</p> <p>1.a: On the utilities water supply within the buildings, to detect any major leaks within the buildings AND</p> <p>1.b: Between the buildings and the utilities water supply, to detect any major leaks between the utilities supply and the buildings under assessment.</p> <p>2 The leak detection system is:</p> <p>2.a: A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks</p> <p>2.b: Activated when the flow of water passing through the water meter or data logger is at a flow rate above a pre-set maximum for a pre-set period of time. This usually involves installing a system which detects higher than normal flow rates at meters or sub-meters. It does not necessarily require a system that directly detects water leakage along part or the whole length of the water supply system</p> <p>2.c: Able to identify different flow and therefore leakage rates, e.g. continuous, high or low level, over set time periods. Although high and low level leakage rates are not specified, the leak detection equipment installed must have the flexibility to distinguish between different flow rates to enable it to be programmed to suit the building type and owner's or occupier's usage patterns.</p> <p>2.d: Programmable to suit the owner's or occupier's water consumption criteria</p> <p>2.e: Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as</p> | 1 | 1 | | A leak detection system will be installed between mains supply and the building meeting BREEAM requirements. Future provision made available for the commercial office unit(s). |
| Wat 04: Water efficient equipment | | <p>1 Identify all water demands from uses other than those listed under Wat 01 Water consumption: Table 8.1 that could be realistically mitigated or reduced. Where there is no water demand from uses other than domestic-scale, sanitary use components in the building, this issue is not applicable.</p> <p>2 Identify systems or processes to reduce the relevant water demand (criterion 1), and establish, through either good practice design or specification, a demonstrable reduction in the total water demand of the building.</p> | 1 | 1 | | Please confirm if there will be areas of landscaping and planting for the site. If yes, please confirm that there will be no irrigation systems. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| Category 6: Materials (each credit = 1.57%) | | | | | | |
| Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) | Superstructure | <p>Superstructure (offices, industrial and retail buildings (except for Simple Buildings and where Notes 1.1 and 1.2 apply))</p> <p>1 During the Concept Design, demonstrate the environmental performance of the building as follows:</p> <p>1.a: Carry out a building LCA on of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool according to the methodology (see Methodology).</p> <p>1.b: Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is applied for (that includes external material or product specifications).</p> <p>2 During Technical Design, demonstrate the environmental performance of the building as follows:</p> <p>2.a: As criterion 1.a</p> <p>2.b: Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design.</p> <p>Where a project has not achieved criterion 1, criterion 2 may still be achieved.</p> | 6 | 6 | | <p>Simple LCA undertaken at design stage for original scheme.</p> <p>The BRE have confirmed that if planning has been rejected/not accepted, and the project is still technically at RIBA 2 (concept design), i.e. changes have been taking place to the concept design of the project to try and get planning approval, another Life Cycle Assessment can be undertaken to take into account the revised design.</p> <p>Stroma appointed to undertake full LCA, prior to planning being approved - the full 6 credits are therefore now available for the project.</p> |
| | Substructure and hard landscaping options appraisal during Concept Design | <p>6 Criteria 3 and 4 are achieved.</p> <p>7 During Concept Design identify opportunities for reducing environmental impacts as follows:</p> <p>7.a: Carry out building LCA options appraisal of a combined total of at least six significantly different substructure or hard landscaping design options (at least two shall be substructure and at least two shall be hard landscaping).</p> <p>7.b: Using a building LCA tool that is recognised by BREEAM (as suitable for assessing substructure and hard landscaping during Concept Design) according to the methodology (see Methodology).</p> <p>7.c: As criteria 4.c to 4.f.</p> | 1 | 1 | | Stroma appointed to undertake full LCA - this credit is therefore now achievable subject to satisfactory information being received. |
| | LCA and LCC alignment (all building types) | <p>10 Achieve criteria 3 to 5.</p> <p>11 Achieve Elemental LCC plan and Component Level LCC options appraisal credits (Man 02 Life cycle cost and service life planning).</p> <p>12 Include design options appraised for criteria 3 to 4 (and 6 to 7 and 8 to 9, if pursued) during Concept Design in Man 02 Life cycle cost and service life planning: 2 The elemental LCC plan: .</p> <p>13 Include the design options appraised for criterion 5 during Concept Design in the 'Component level LCC option appraisal' (in Man 02 Life cycle cost and service life planning).</p> <p>14 Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document including the relevant cost information from the 'elemental LCC plan' and 'Component level LCC option appraisal'.</p> | 1 | 0 | | Not anticipated. |
| | Third party verification (all building types) | <p>15 Criteria 1 to 7 (as applicable to the building type) are achieved.</p> <p>16 A suitably qualified third party (see Definitions) carries out the building LCAs or produces a report verifying the building LCAs accurately represent the designs under consideration during Concept Design and Technical Design with reference to the requirements of criteria 1 to 7 (and 8 to 14 if pursued).</p> <p>17 For each LCA option, itemise the findings of the verification checks made by the suitably qualified third party in the report including, as a minimum, the quality requirements show in Table 9.4.</p> <p>18 Include details of the suitably qualified third party's relevant skills and experience and a declaration of their third party independence from the project client and design team in the report.</p> | 1 | 1 | | This credit is now targeted as Stroma have been appointed to undertake a full LCA. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| Mat 02: Environmental impacts from construction products- EPD | Specification of products with a recognised environmental product declaration (EPD) | <p>1 Specify construction products with EPD that achieve a total EPD points score of at least 20, according to the Methodology below.</p> <p>2 Enter the details of each EPD into the Mat 01/02 Results Submission Tool, including the material category classification. The Mat 01/02 Results Submission Tool will verify the EPD points score and credit award.</p> | 1 | 0 | | Not anticipated for this project due to limited number of products with EPDs. |
| Mat 03: Responsible sourcing of construction products | Pre-requisite | <p>1 All timber and timber-based products used on the project are legally harvested and traded timber as per the UK Government's Timber Procurement Policy (TPP) (see Definitions).</p> <p>Compliance with criterion 1 is a minimum requirement for achieving any BREEAM rating. There are no prerequisite requirements for other materials.</p> | | | | <p>The client will commit to responsible sourcing of materials, with a sustainable procurement plan and major building elements with FSC, ISO14001, BES6001 etc. certification. Quantities of all materials will be required.</p> <p>RISK: Final number of credits will be known once material information is available.</p> |
| | Enabling sustainable procurement | <p>2 A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must:</p> <p>2.a: Be in place before Concept Design.</p> <p>2.b: Include sustainability aims, objectives and strategic targets to guide procurement activities. Note: targets do not need to be achieved for the credit to be awarded but justification must be provided for targets that are not achieved.</p> <p>2.c: Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible.</p> <p>2.d: Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan.</p> <p>In addition, if the plan is applied to several sites or adopted at an organisational level it must:</p> <p>2.e: Identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO 20400:20171.</p> | 1 | 1 | | |
| | Measuring responsible sourcing | <p>3 Use the Mat 03 calculator tool and methodology to determine the number of credits achieved for the construction products specified or procured. Credits are awarded in proportion to the scope of the assessment and the number of points achieved, as set out in Table 9.10.</p> | 3 | 1 | | |
| | Exemplary level criteria | <p>4. Where at least 50% of the available RSM points are achieved</p> | 1 | 0 | | |
| Mat 05: Designing for durability and resilience | Protecting vulnerable parts of the building from damage and protexting exposed parts of the building from material degradation | <p>Protecting vulnerable parts of the building from damage</p> <p>1 Protection measures are incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring. These measures must provide protection against:</p> <p>1.a: Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.).</p> <p>1.b: Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas.</p> <p>1.c: External building fabric damage by a vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building façade and where delivery areas or routes are within 2 metres of the façade, i.e. specifying bollards or protection rails.</p> <p>1.d: Potential malicious damage to building materials and finishes, in public and common areas where appropriate.</p> <p>Protecting exposed parts of the building from material degradation</p> <p>2 Key exposed building elements have been designed and specified to limit long and short term degradation due to environmental factors. This can be demonstrated through one of the following:</p> <p>2.a: The element or product achieving an appropriate quality or durability standard or design guide, see Table 9.14. If none are available, use BS 7543:20151 as the default appropriate standard</p> <p>OR</p> <p>2.b: A detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors.</p> <p>3 Include convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design.</p> <p>4 Design the roof and façade to prevent water damage, ingress and detrimental ponding.</p> | 1 | 1 | | The design team will incorporate design for robustness details internally and externally to allow the award of one credit. Materials will be evaluated against material degradation. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| Wst 02: Use of recycled and sustainably sourced aggregates | Pre requisite | 1 If demolition occurs on site, to encourage the reuse of site-won material on site, complete a pre-demolition audit of any existing buildings, structures or hard surfaces in accordance with Wst 01 Construction waste management: Criterion 1 and Wst 01 Construction waste management: Criterion 2 . | | | | |
| | Project sustainable aggregate points | 2 Identify all aggregate uses and types on the project Table 10.5 and Table 10.6 3 Determine the quantity in tonnes for each identified use and aggregate type. 4 Identify the region in which the aggregate source is located. 5 Calculate the distance in kilometres travelled by all aggregates by transport type. 6 Enter the information into the BREEAM Wst 02 calculator to calculate the Project Sustainable Aggregate points. The corresponding number of BREEAM credits will be awarded as shown in Table 10.4 1 credit = 3.6-6 points | 1 | 0 | | Credit not anticipated at this stage of the project. |
| | Exemplary level criteria | Exemplary credit = more than 6 points | 1 | 0 | | N/A |
| Wst 03: Operational waste | Operational waste | 1 Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is: 1.a: Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams 1.b: Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors 1.c: Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates. 2 For consistent and large amounts of operational waste generated, provide: 2.a: Static waste compactors or balers; situated in a service area or dedicated waste management space 2.b: Vessels for composting suitable organic waste OR adequate spaces for storing segregated food waste and compostable organic material for collection and delivery to an alternative composting facility 2.c: A water outlet provided adjacent to or within the facility for cleaning and hygiene purposes where organic waste is to be stored or composted on site. Minimum Standard for BREEAM Excellent: One credit. | 1 | 1 | | At least 2m2 per 100m2 will be provided for the storage of recyclable waste, in a dedicated space, clearly labelled and accessible to building users. If required for building function a waste compactor will be installed, as well as composting. If food waste to be stored, a water outlet will be required in the waste store. |
| Wst 05: Adaptation to climate change | Resilience of structure, fabric, building services, and renewables installation | 1 Conduct a climate change adaptation strategy appraisal using: 1.a: A systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes (see Methodology): 1.a.i Hazard identification 1.a.ii Hazard assessment 1.a.iii Risk estimation 1.a.iv Risk evaluation 1.a.v Risk management. 2 Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact. 3 Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor. | 1 | 1 | | This credit could be achieved with engagement at Concept Stage. Report to be produced by end of RIBA 2. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| Wst 06: Design for disassembly and adaptability | Design for disassembly and functional adaptability - recommendation | 1 Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios (see Methodology) by the end of Concept Design. 2 Develop recommendations or solutions (see Methodology) based on the study (criterion 1), during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation. | 1 | 1 | | Functional adaptability report to be completed at RIBA Stage 2 |
| | Disassembly and functional adaptability - implementation | 3 Achieve criteria 1 and 2 4 Provide an update, during Technical Design, on: 4.a: How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing to the assessor. 4.b: Changes to the recommendations and solutions during the development of the Technical Design. 5 Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants. | 1 | 1 | | Report to be completed at Technical Stage (RIBA 4) |
| Category 8: Land Use and Ecology (each credit = 1.46%) | | | | | | |
| LE 01: Site selection | Previously occupied land | 1 At least 75% of the proposed development's footprint is on an area of land which has previously been occupied | 1 | 1 | | At least 75% of the proposed development's footprint is on land which was previously developed. |
| | Contaminated land | 2 A contaminated land professional'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: 2.a: The degree of contamination 2.b: The contaminant sources or types 2.c: The options for remediating sources of contamination which present an unacceptable risk. 3 The client or principal contractor confirms that remediation of the site will be carried out in accordance with the remediation strategy and its implementation plan as recommended by the contaminated land professional | 1 | 1 | | Credit targeted based on discussion with design team. Please provide confirmation of land contamination, and remediation strategy. |
| | Pre requisite - Assessment route selection | Determine the assessment route either project team member route or ecologist route | | | | |
| | Survey and evaluation | Route 1 3 Completion of the BREEAM Ecological Risk Evaluation Checklist indicates Assessment route 1 can be used as the assessment (see Methodology). Route 2 4 An appropriate individual is appointed at a project stage that ensures early involvement in site configuration and, where necessary, can influence strategic planning decisions. 5 Prior to the completion of the preparation and brief, an appropriate level of survey and evaluation (see Assessment route 2: For sites where complex ecological systems are likely to be present) has been carried out to determine the ecological baseline of the site, taking account of the zone of influence to establish: 5.a: Current and potential ecological value and condition of the site, and related areas within the zone of influence. 5.b: Direct and indirect risks to current ecological value 5.c: Capacity and feasibility for enhancement of the ecological value of the site and, where relevant, areas within the zone of influence. 6 Data are collated and shared with project team to inform the site preparation, design or construction works. | 1 | 1 | | A suitably qualified ecologist will be appointed to assess the current site, this will follow Route 2, the current site is buildings, hardstanding and vegetation, to be confirmed it is low ecological value. RISK: Please ensure that a BREEAM 2018 Ecology Report is undertaken to determine number of credits available. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| LE 02: Identifying and understanding the risks and opportunities for the project | Determining the ecological outcomes for the site (both routes) | <p>7 Survey and evaluation criteria (criteria 3–6) relevant to the chosen route have been achieved.</p> <p>8 During Concept Design, the project team liaise and collaborate with representative stakeholders to identify and consider ecological outcome for the sites (appropriate to the scale and type of development) for the project.</p> <p>9 When determining the ecological outcome for the site, this must involve the identification, appraisal and selection of specific solutions and measures sufficiently early to influence key project planning decisions. This must be done in accordance with the following hierarchy of action:</p> <p>9.a: avoidance 9.b: protection 9.c: reduction or limitation of negative impacts 9d: on site compensation and, 9.e: enhancement, considering the capacity and feasibility within the site, or where viable, off-site.</p> <p>10 Following this the optimal ecological outcome for the site is selected after liaising with representative stakeholders and the project team.</p> | 1 | 1 | | <p>Ecological outcomes to be assessed by the ecologist</p> <p>RISK: Please ensure that a BREEAM 2018 Ecology Report is undertaken.</p> <p>Early project team liaison and collaboration with representative stakeholders required - ecologist to advise if achievable.</p> |
| | Exemplary level criteria | <p>11 Achieve criteria 8 to 10.</p> <p>10, the wider site sustainability-related activities and the potential for ecosystem service related benefits. See Methodology for a list of the minimum areas for consideration.</p> <p>13 Achieve the credits of the assessment issues outlined below:</p> <p>13.a: Hea 07 Safe and healthy surroundings - Both credits 13.b: Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution' 13.c: Pol 05 Reduction of noise pollution</p> | 1 | 0 | | Not anticipated |
| LE 03: Managing negative impacts on ecology | Pre requisite - identifying and understanding the risks and opportunities for the site | <p>1 LE 02 has been achieved.</p> <p>2 The client or contractor has confirmed that compliance is monitored against all relevant UK, and EU or International legislation relating to the ecology of the site</p> | | | | |
| | Planning, liason, implementation and data | <p>3 Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes at an early enough stage to influence the concept design or design brief.</p> <p>4 Site preparation and construction works have been planned for and are implemented at an early project stage to optimise benefits and outputs.</p> <p>5 The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented solutions, and measures have been selected (see LE 02 Identifying and understanding the risks and opportunities for the project), during site preparation and construction works.</p> | 1 | 1 | | <p>Suitably qualified ecologist to complete this section</p> <p>RISK: Ecologist to be appointed to provide BREEAM 2018 Ecology report as soon as possible to determine number of credits still achievable.</p> |
| | Managing negative impacts of the project | <p>Route 1 (one credit)</p> <p>6 Negative impacts from site preparation and construction works have been managed according to the hierarchy (see Methodology) and no net impact has resulted.</p> <p>Route 2 (up to two credits)</p> <p>7 Negative impacts from site preparation and construction works have been managed according to the hierarchy (see Assessment route 2: For sites where complex ecological systems are likely to be present) and either:</p> <p>7.a: No overall loss of ecological value has occurred (2 credits) OR 7.b: The loss of ecological value has been limited as far as possible (1 credit)</p> | 2 | 1 | | <p>Suitably qualified ecologist to complete this section</p> <p>RISK: Ecologist to be appointed to provide BREEAM 2018 Ecology report as soon as possible to determine number of credits still achievable.</p> |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| LE 04: Change and enhancement of ecological value | Pre requisite - identifying and understanding the risks and opportunities for the site | 1 LE 03 has been achieved. Including the following, specific to the aims of this issue: 1.a: Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes 1.b: Site preparation and construction works have been planned for and implemented at a stage that is sufficiently early in the project to optimise benefits and outputs. 2 The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site. | | | | |
| | Liaison, implementation and data collation (route 2 only) | Route 2 5 The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented the solutions and measures selected in a way that enhances ecological value in the following order: 5.a: On site, and where this is not feasible, 5.b: Off site within the zone of influence. | 1 | 1 | | Suitably qualified ecologist to complete this section RISK: Ecologist to be appointed to provide BREEAM 2018 Ecology report as soon as possible to determine number of credits still achievable. |
| | Enhancement of ecology (route 2 only) | Route 2 6 Credits are awarded on a scale of 1 to 3, based on the calculation of the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in either GN 35 - BREEAM, CEEQUAL, HQM Ecology Assessment Issues – Route 1 or GN 36 - BREEAM, CEEQUAL, HQM Ecology Assessment Issues – Route 2 (whichever is applicable to the project). | 3 | 2 | | Suitably qualified ecologist to complete this section RISK: Ecologist to be appointed to provide BREEAM 2018 Ecology report as soon as possible to determine number of credits still achievable. |
| LE 05: Long term ecology management and maintenance | Prerequisite - Roles, responsibilities, implementation, statutory obligations | 1 The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. 2 Where pursued, LE 04 has been achieved, including the following specific aims of this issue: 2.a: Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes. 2.b: Site preparation and construction works have been planned for and implemented at a stage that is sufficiently early in the project to optimise benefits and outputs. | | | | |
| | Planning, liaison, data, monitoring and review management and maintenance | 3 The project team liaise and collaborate with representative stakeholders, taking into consideration data collated and shared, on solutions and measures implemented to: 3.a: monitor and review implementation and the effectiveness 3.b: develop and review management and maintenance solutions, actions or measures. 4 In support of the above and to help ensure their continued relevance over the period of the project the following should be considered: 4.a: Monitoring and reporting of on the ecological outcomes for site implemented at the design and construction stage 4.b: Monitoring and reporting of outcomes and successes from the project 4.c: Arrangements for the ongoing management of landscape and habitat connected to the project (on and, where relevant, off site) 4.d: Maintaining the ecological value of the site and its relationship or connection to its zone of influence 4.e: Maintaining the site in line with the any sustainability linked activities, e.g. ecosystems benefits (LE 02). 4.f: Remedial or other management actions are carried out which relate to those identified in LE 02, LE 03 and LE 04. 5 As part of the tenant or building owner information supplied, include a section on Ecology and Biodiversity to inform the owner or occupant of local ecological features, value and biodiversity on or near the site. | 1 | 1 | | Suitably qualified ecologist to complete this section RISK: Ecologist to be appointed to provide BREEAM 2018 Ecology report as soon as possible to determine number of credits still achievable. |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
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| | Landscape and ecology management plan (or similar) development | 6 Landscape and ecology management plan, or similar, is developed in accordance with BS 42020:20131 covering as a minimum the first five years after project completion and includes: 6.a: Actions and responsibilities, prior to handover, to give to relevant individuals 6.b: The ecological value and condition of the site over the development life. 6.c: Identification of opportunities for ongoing alignment with activities external to the development project and which supports the aims of BREEAM's Strategic Ecology Framework 6.d: Identification and guidance s to trigger appropriate remedial actions to address previously unforeseen impacts 6.e: Clearly defined and allocated roles and responsibilities. 7 The landscape and management plan or similar is updated as appropriate to support maintenance of the ecological value of the site. | 1 | 1 | | Suitably qualified ecologist to complete this section RISK: Ecologist to be appointed to provide BREEAM 2018 Ecology report as soon as possible to determine number of credits still achievable. |
| Category 9: Pollution (each credit = 1.0%) | | | | | | |
| | Pre-requisite | 1 An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria. | | | | |
| | Flood resilience | Two credits - Low flood risk 2 A site-specific flood risk assessment (FRA) confirms the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration (see Sources of flooding). One credit - Medium or high flood risk 3 A site-specific FRA confirms the development is in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain. The FRA must take all current and future sources of flooding into consideration (see Sources of flooding). For smaller sites refer to Level of detail required in the FRA for smaller sites, which overrides criterion 2. 4 To increase the resilience and resistance of the development to flooding, one of the following must be achieved: 4.a: The ground level of the building and access to both the building and the site, are designed (or zoned) so they are at least 600 mm above the design flood level of the site's flood zone (see 600 mm threshold). 4.b: The final design of the building and the wider site reflects the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2017 1. | 2 | 0 | 1 or 2 | Further information required from Drainage Consultant to confirm if credits are available here. |
| | Pre-requisite | 5 Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site. | | | | |
| | | One credit - Surface Water Run-Off - Rate 6 Drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) shows a 30% improvement for the developed site compared with the pre-developed site. This should comply at the 1-year and 100-year return period events. 7 Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place. 8 Calculations include an allowance for climate change. This should be made in accordance with current best practice planning guidance (see Definitions). | 1 | 1 | | The current site is occupied by buildings and hardstandings, therefore the peak run off rate is likely to be less post development. Drainage consultant to confirm. |
| | | One credit - Surface Water Run-Off - Volume 9 Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND | | | | |

| Issue No. | Issue Title | Assessment Criteria | Credits Available | Credits Sought | Potential Credits | Comments |
|---|----------------------------------|--|--|----------------|-------------------|--|
| Pol 03: Flood and surface water management | Surface water run off | <p>EITHER</p> <p>10 Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for the 100-year 6-hour event, including an allowance for climate change (see criterion 14).</p> <p>11 Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other OR (only where criteria 10 and 11 cannot be achieved):</p> <p>12 Justification from the appropriate consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options.</p> <p>13 Drainage design measures are specified so that the post-development peak rate of run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options:</p> <p>13.a: The pre-development one-year peak flow rate</p> <p>13.b: The mean annual flow rate (Qbar)</p> <p>13.c: 2L/s/ha.</p> <p>For the one-year peak flow rate, the one-year return period event criterion applies.</p> <p>14 Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place.</p> <p>15 For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.</p> | 1 | 1 | | The drainage consultant should confirm that flooding will not occur in the case of local drainage system failure. Also the run-off volume anticipated to be no greater than pre-development. |
| | Minimising watercourse pollution | <p>16 There is no discharge from the developed site for rainfall up to 5 mm (confirmed by the appropriate consultant).</p> <p>17 Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques.</p> <p>18 Areas with a high risk of contamination or spillage of substances, such as petrol and oil, have separators (or an equivalent system) are installed in surface water drainage systems.</p> <p>19 Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system (i.e. shut-off valves). This is to prevent the escape of chemicals to natural watercourses in the event of a spillage or bunding failure.</p> <p>20 All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as the SuDS manual2 and other relevant industry best practice. They must be bespoke solutions taking account of the specific site requirements and natural or man-made environment of and surrounding the site.</p> <p>21 A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers.</p> <p>22 Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.</p> <p>23 All external storage and delivery areas are designed and detailed in accordance with the current best practice planning guidance.</p> | 1 | 0 | 1 | Credit not currently anticipated - drainage consultant to confirm if achievable. |
| Pol 04: Reduction of night time light pollution | | <p>1 External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users.</p> <p>OR alternatively, where the building does have external lighting, one credit can be awarded as follows:</p> <p>2 The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 20111.</p> <p>3 All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00.</p> <p>4 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 guidance notes.</p> <p>5 Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements</p> | 1 | 1 | | External lighting to be designed in accordance with ILP Guidance Notes and to be automatically switched off during daylight hours. If security lighting required this must follow Table 2 recommendations for lower levels of light. |
| TOTAL BREEAM SCORE | | | 72.94% - INCLUDING RISK CREDITS | | | |

5. Conclusion

The above assumptions will result in an overall score of:

Office (shell only) 72.94%,

which equates to a BREEAM “**Excellent**” rating.

This Pre-Assessment therefore shows that the new office unit spaces at 9, 11 & 19 Osiers Road, will meet BREEAM ‘Excellent’, as required by Wandsworth Council’s Local Plan Core Strategy Policy DMS3 and the planning conditions for the site.

It should be noted that the final rating achieved in a certified BREEAM Assessment is dependent on the production of satisfactory evidence for each credit.