



# ENERGY REPORT

building certification | compliance | testing

## BREEAM

### Pre-assessment Report

640 Oxford Road, Reading, RG30 1EH

VX KVS DEV Ltd

J04012

5<sup>th</sup> May 2026

Registry of Amendments

| Revision | Date     | Amendment Details | Prepared by |
|----------|----------|-------------------|-------------|
| 0        | 05/05/26 | First Issue       | S Hughes    |

About Energy Report Limited

A specialist building energy and sustainability consultancy offering expertise and experience to our clients within the construction and building sectors. Offering a full inclusive service from design to completion for any energy efficiency or sustainability issue.

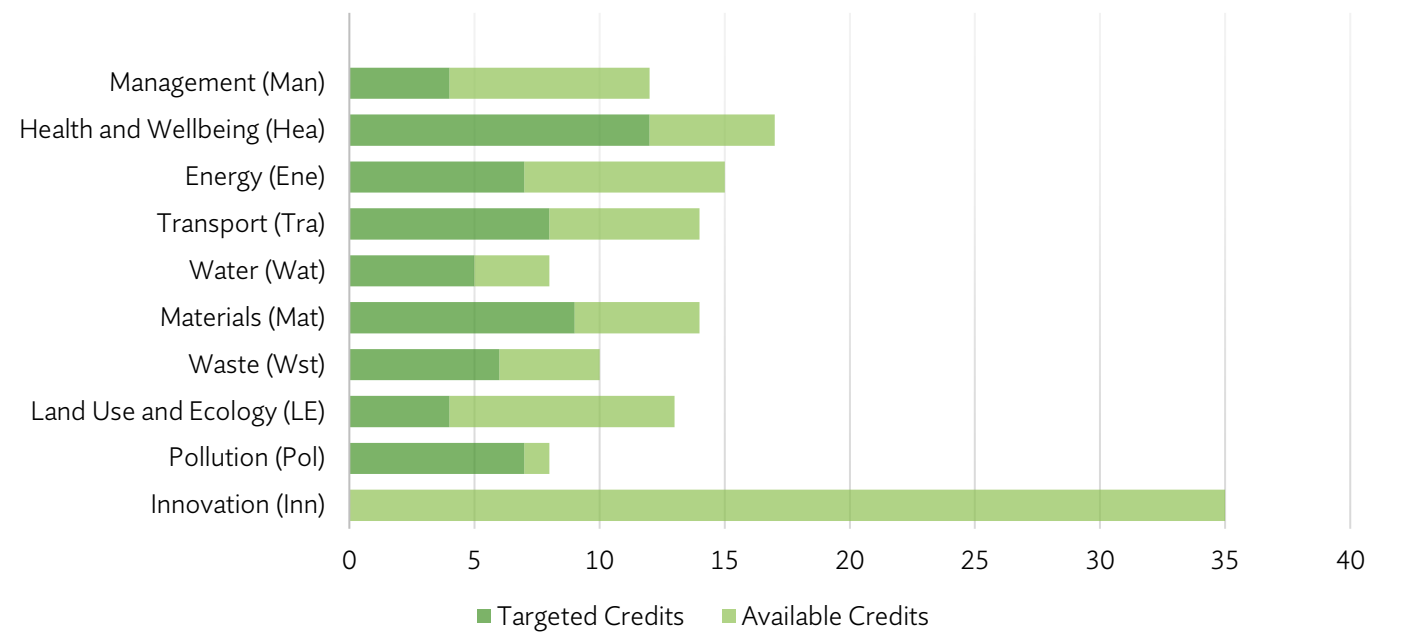
1. EXECUTIVE SUMMARY

This BREEAM Pre-assessment has been written by Energy Report on behalf of VX KVA DEV Ltd (the Client) to support a proposed ground floor commercial unit located at 640 Oxford Road, Reading. The pre-assessment has been based on details supplied by the client and wider design team to-date, in addition to further desk-based study, best practice and historical data.

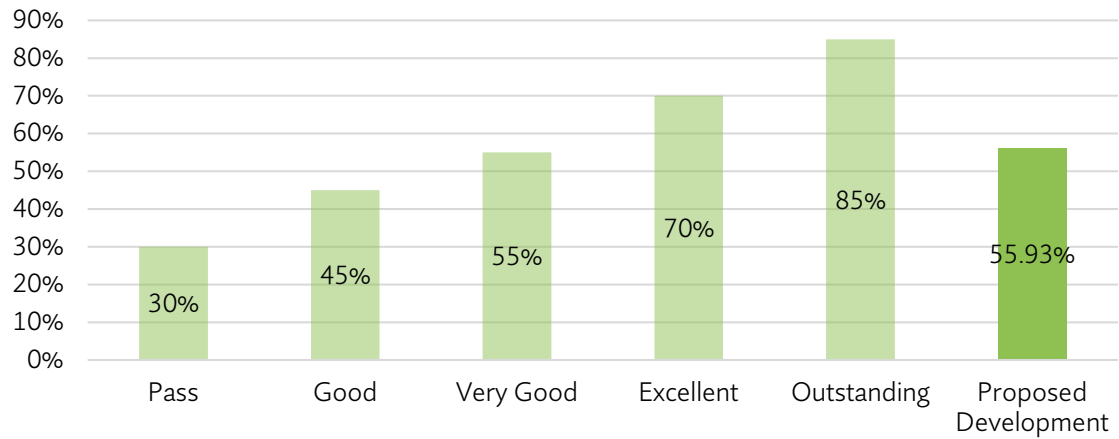
| Scope of Assessment |                                |
|---------------------|--------------------------------|
| Scheme Selection    | BREEAM UKNC Version 6.1        |
| Building Type       | Commercial                     |
| BREEAM Type         | Fully Fitted – Simple Building |
| Target Rating       | Very Good ≥ 55 %               |

| Scenario               | Min Standards Met | Score  | BREEAM Rating |
|------------------------|-------------------|--------|---------------|
| Energy report proposed | Yes               | 55.93% | Very Good     |

Credit Distribution

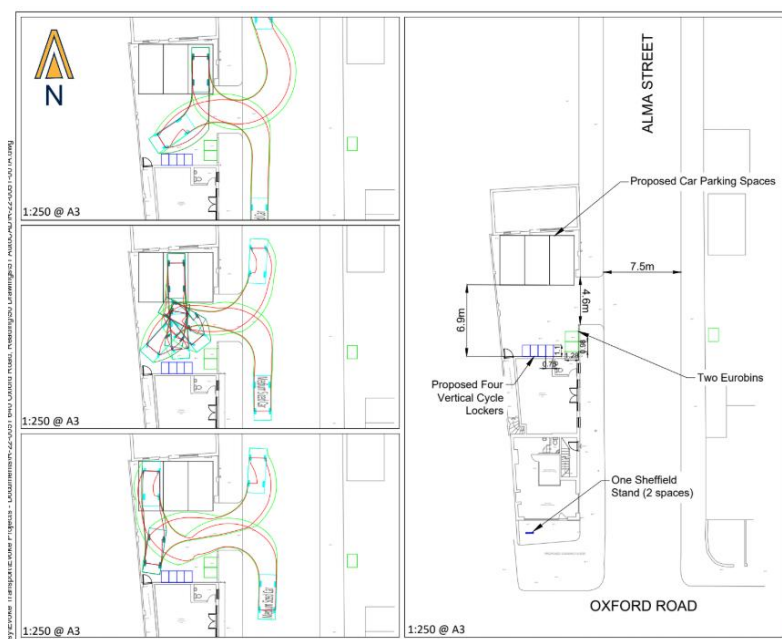


## BREEAM rating



## Development Overview

The proposed development consists of the erection of a commercial unit with associated works, landscaping and infrastructure. The site is located at 640 Oxford Road, Reading, RG30 1EH.



Site Location Plan

## 2. ASSESSMENT CRITERIA

An informal pre-assessment has been undertaken to determine an estimated BREEAM rating. The pre-assessment illustrates an indicative route to achieving an 'Very Good' estimated rating. The project team may choose an alternative method of compliance as the project enters full design and construction phases.

The credits contained within the assessment are relevant to the scope of a 'fully fitted- simple building' assessment to reflect the scope of the work to be undertaken by the client.

This pre-assessment highlights the credits which are likely to be achievable (proposed) and those that will require additional input (potential).

### 2.1. BREEAM SCORE

This pre-assessment report demonstrated that the development has the potential to achieve an Very Good rating with a target score of 55.93%.

The credit strategy represents a score that can be achieved within the constraints of the development, which is realistic and deliverable on-site, based on the assumptions and information agreed upon to-date.

Potential credits are highlighted within the following sections, some of which should be adopted to improve the current score and provide a sufficient buffer to protect against the loss of any credits throughout the construction phase.

To achieve BREEAM standards it can be challenging therefor the pre-assessment report should be carefully reviewed by the design and construction teams to ensure all target credits are delivered as the project progresses. Section 7 within this report list the specific credits proposed as part of the BREEAM 'Very Good' rating.

### 3. ASSESSMENT METHODOLOGY

#### 3.1. BREEAM

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's leading sustainability rating scheme for the built environment. Setting the standard for best practice in sustainable design.

As of 2024, BREEAM has certified over 600,000 buildings globally, with many of these certifications falling under the New Construction category.

BREEAM is developed, operated and maintained by BRE Global Ltd and the operation and direction of the method is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders. Further information about BREEAM, including copies of the BREEAM standards, can be found at [www.breeam.org](http://www.breeam.org).

#### 3.2. AIMS OF BREEAM

- To mitigate the life cycle impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits
- To provide a credible, environmental label for buildings
- To stimulate demand for sustainable buildings

### 3.3. BREEAM NEW CONSTRUCTION

BREEAM New Construction is a performance-based assessment method and certification scheme for new buildings. Its primary aim is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost-effective manner. By quantifying and reducing the environmental burdens of buildings, BREEAM rewards designs that take positive steps to minimise their environmental impacts.

Projects are evaluated during both the design and post-construction phases using a framework that categorises environmental issues into the following sections:

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

### 3.4. Stages of the BREEAM assessment

Phase one: Design stage (DS)

The design stage can be used to demonstrate the proposed new building's performance at the design stage of the life cycle, submission for this 'interim' rating must be before the completion of RIBA Stage 4 - An interim certificate will be provided upon completion of the DS assessment.

Phase two: Post Construction Stage (PCS)

Submission for this 'as-built' rating will be at RIBA Stage 6 and will require the BREEAM assessor to carry out a site visit - Final certification will be awarded upon completion of the PCS assessment.

## 4. MANDATORY CREDITS

BREEAM ensures that key environmental issues like energy, water, and waste are not overlooked in pursuit of a particular rating by setting minimum performance standards in these areas. While most BREEAM credits are flexible and can be traded—meaning non-compliance in one area can be offset by exceeding standards in another—the minimum standards ensure that essential environmental criteria are always met.

| Minimum Standards for Very Good |                                               |                                                               |
|---------------------------------|-----------------------------------------------|---------------------------------------------------------------|
| Man 04                          | Commissioning and handover                    | One credit (commissioning test schedule and responsibilities) |
| Man 04                          | Commissioning and handover                    | Criterion11 (Building User Guide)                             |
| Ene 02                          | Energy Monitoring                             | One credit (First sub metering credit)                        |
| Wat 01                          | Water Consumption                             | One credit                                                    |
| Wat 02                          | Water monitoring                              | Criterion 1 only                                              |
| Mat 03                          | Responsible sourcing of construction products | Criterion 1 only                                              |

## 5. CRITICAL EARLY CREDITS

The following targeted credits have 'early stage' requirements that should be addressed before the end of RIBA Stage 2, this is typically considered the planning submission date. While some actions can be implemented later, it is strongly advisable to demonstrate that all early-stage works have been initiated before the end of Stage 2. Delaying implementation can increase the risk of not achieving the targeted credits, potentially jeopardising the target rating and/or increasing costs later. The general principle is that the project team must show that any later delivery of required actions or surveys has not negatively impacted the ability to meet the credit requirements.

| Early Action Credits   |                                                                                                                                                  |                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Category               | Action                                                                                                                                           | Typical responsibility           |
| Man 01                 | Project delivery planning – Key stakeholders have met to define Roles, responsibilities and contributions for each phase of the project delivery | Design Team                      |
| Hea 02 (pre-requisite) | A site-specific indoor air quality plan has been produced and implemented in accordance with the Guidance Note GN06                              | MEP                              |
| Hea 04                 | Thermal modelling to commence                                                                                                                    | Energy Consultant and MEP        |
| Hea 05                 | Acoustic impact statements                                                                                                                       | Acoustician                      |
| Ene 04                 | Passive design analysis and low & zero carbon (LZC) feasibility study                                                                            | Architects and Energy Consultant |
| Tra 01 and 02          | Develop a travel plan based on a site-specific travel assessment                                                                                 | Transport Consultant             |
| Mat 01                 | Carry out a life cycle assessment (LCA) and optimise the use of materials at concept and design stage                                            | LCA Consultant / Architect       |
| Mat 03                 | A sustainable procurement plan                                                                                                                   | Contractor                       |
| LE 02 -05              | Ecologist reports in line with BREEAM guidance notes                                                                                             | Ecologist                        |

## 6. SCORE SUMMARY

| BREEAM Section       | Credits Available | Credits Targeted | Weighting     | Target Score     |
|----------------------|-------------------|------------------|---------------|------------------|
| Management           | 12                | 4                | 7.5%          | 2.5%             |
| Health and Wellbeing | 17                | 12               | 16.5%         | 11.65%           |
| Energy               | 15                | 7                | 11.5%         | 5.37%            |
| Transport            | 12                | 8                | 11.5%         | 7.67%            |
| Water                | 8                 | 5                | 7.5%          | 4.69%            |
| Materials            | 14                | 8                | 17.5%         | 10%              |
| Waste                | 10                | 6                | 7%            | 4.2%             |
| Land Use and Ecology | 13                | 4                | 15%           | 4.62%            |
| Pollution            | 8                 | 7                | 6%            | 5.25%            |
| Innovation           | 10                | 0                | 10%           | 0%               |
| <b>Total</b>         | <b>199</b>        | <b>61</b>        |               | <b>55.93%</b>    |
|                      |                   |                  | <b>Rating</b> | <b>Very Good</b> |

## 7. INDIVIDUAL CREDITS

(Criteria for guidance only. Please refer to the BREEAM New Construction Version 6.1 Technical Manual for full credit compliance requirements and schedule of evidence required)

### MANAGEMENT (MAN)

| Man 01: Project Brief and Design | Available Credits | Targeted Credits | Potential Credit | Credit Requirements                                                                                                                                                                         | Potential Evidence Approach                                                                                                                                                          | Typical Responsibility | Stage Due     |
|----------------------------------|-------------------|------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------|
| Project delivery planning        | 1                 | 1                | 0                | Roles, responsibilities and contributions for each phase of the project delivery have been clearly defined and inputs have influenced early design options                                  | Meeting minutes. Summary document of roles and responsibilities.                                                                                                                     | Design Team            | RIBA Stage 4  |
| Stakeholder consultation         | 1                 | 1                | 0                | Consultations with third-party stakeholders have been conducted, and their contributions and outcomes have been documented. Any influence they have had on the design is clearly indicated. | Relevant section/clauses of the building specification or contract. Project program, indicating the dates by which the key work stages (Preparation and Design) are to be completed. |                        | Concept Stage |

| Man 02: Life Cycle Cost and Service Life Planning | Available Credits | Targeted Credits | Potential Credit | Credit Requirements                                                                                     | Potential Evidence Approach | Typical Responsibility         | Stage Due    |
|---------------------------------------------------|-------------------|------------------|------------------|---------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------|--------------|
| Capital cost reporting                            | 1                 | 1                | 0                | Report the capital cost for the building in pounds per square meter of gross internal floor area (£/m²) | Provide capital cost report | Architects and Cost consultant | RIBA Stage 2 |

| Man 03: Responsible Construction Practices                   | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                            | Potential Evidence Approach                                               | Typical Responsibility             | Stage Due                      |
|--------------------------------------------------------------|-------------------|------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------|--------------------------------|
| Pre-requisite - Legal and sustainable timber                 | -                 | -                | -                 | All timber and timber-based products used during the construction process of the project are 'legally harvested and traded timber'                             | A signed and dated letter of commitment to meet the relevant criteria     | Principle Contractor and BREEAM AP | Prior to Construction Starting |
| Environmental management                                     | 1                 | 0                | 1                 | Principle contractors operate a certified EMS (ISO14001) or equivalent standard, also implements best practice pollution prevention policies/procedures (PPG6) | Copy of ISO14001 certificate and signed copy of the PPG checklist         |                                    |                                |
| Responsible construction management                          | 2                 | 0                | 2                 | Achieve items listed as required for one credit in Table 4.1 Responsible construction management items                                                         | Plans, risk assessments and proof of implementation                       |                                    | At Project Completion          |
| Monitoring of construction site impacts: Pre-requisite       | 0                 | 0                | 0                 | Responsibility is assigned to an individual to monitor and record data resulting from on-site construction processes.                                          | Confirmation an individual has been assigned for monitoring purposes only |                                    |                                |
| Monitoring of construction site impacts: Utility consumption | 1                 | 0                | 1                 | Monitor water and energy consumption                                                                                                                           | Amount of potable water and energy consumed by site activities            |                                    |                                |

| Man 04: Commissioning and Handover                    | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                    | Potential Evidence Approach                                                           | Typical Responsibility       | Stage Due                                                |
|-------------------------------------------------------|-------------------|------------------|-------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------|
| Commissioning - testing schedule and responsibilities | 1                 | 1                | 0                 | Appoint a commissioning manager prepare a schedule of commissioning and testing in accordance with relevant standards. | Principal Contractors programme Commissioning schedule and commissioning certificates | MEP and Principal Contractor | Prior to Construction Starting and at Project Completion |
| Handover                                              | 1                 | 0                | 1                 | Develop a building user guide and training schedule prior to handover                                                  | Scope of building user guide & facilities management training schedule                |                              |                                                          |

| Man 05: Aftercare               | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                                                                                                                                                       | Potential Evidence Approach                                                                                                                                                                                | Typical Responsibility          | Stage Due                      |
|---------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------|
| Aftercare support               | 1                 | 0                | 1                 | Provide aftercare support to the building occupiers through having operational infrastructure and resources in place. Provide initial aftercare support for at least the first month and long-term aftercare support for the first 12 months.<br>Collect and monitor energy and water consumption for the first 12 months | Training program from initiation meeting<br>Letter of appointment and contract to aftercare support consultant and letter of confirmation of their responsibilities<br>Commits fund for the POE in advance | Principle Contractor and Client | Prior to Construction Starting |
| Commissioning - implementation  | 1                 | 0                | 1                 | Perform commissioning activities for at least the first 12 months (plant usage, ventilation, occupant interviews and review of internal temperatures).                                                                                                                                                                    |                                                                                                                                                                                                            |                                 |                                |
| Post Occupancy Evaluation (POE) | 1                 | 0                | 1                 | Appoint POE consultant (must be independent of the design of the building)                                                                                                                                                                                                                                                |                                                                                                                                                                                                            |                                 |                                |
| Management Totals               | 12                | 5                | 7                 |                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                            |                                 |                                |

## HEALTH AND WELLBEING (HEA)

| Hea 01: Visual Comfort                                    | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                        | Evidence Requirement                                                           | Typical Responsibility | Stage Due    |
|-----------------------------------------------------------|-------------------|------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------|--------------|
| Control of glare from sunlight control                    | 1                 | 1                | 0                 | Identify areas at risk of glare using a glare control assessment.<br>A glare control strategy that designs out potential glare.                                            | Glare modelling report                                                         | Architect and MEP      | RIBA Stage 2 |
| Daylighting                                               | 2                 | 2                | 0                 | Demonstrate good practice daylight factors                                                                                                                                 | Daylight modelling report                                                      |                        |              |
| View out                                                  | 1                 | 1                | 0                 | Where relevant building areas are within 8m of an external wall which as a window or permanent opening, and the window/opening is $\geq 20\%$ of the surrounding wall area | Marked up design drawings                                                      |                        |              |
| Internal and external lighting levels, zoning and control | 1                 | 1                | 0                 | Internal and external lighting is designed in accordance with relevant standards.<br>The lighting is zoned and controlled in relevant areas.                               | A letter of formal confirmation of compliance from the M&E with specifications |                        | RIBA Stage 4 |

| Hea 02: Indoor Air Quality           | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                                                              | Evidence Requirement                                                                 | Typical Responsibility | Stage Due    |
|--------------------------------------|-------------------|------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------|--------------|
| Pre-requisite                        | -                 | -                | -                 | A site-specific indoor air quality plan has been produced and implemented in accordance with the Guidance Note GN06                                                                                                              | Indoor air quality plan                                                              | MEP and Architects     | RIBA Stage 4 |
| Ventilation                          | 1                 | 1                | 0                 | 1 credit – Ventilation provides fresh air, limits pollutants, includes filtration and monitoring, and meets required standards                                                                                                   | Design drawings, relevant sections of the building specification or contract clauses |                        |              |
| Emissions from construction products | 2                 | 2                | 0                 | 1 credit - three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11.<br>2 credits- all products from table 5.11 meet the VOC's emissions criteria | Manufacturer's testing certificates and results                                      |                        |              |

| Hea 04: Thermal Comfort           | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                       | Evidence Requirement     | Typical Responsibility               | Stage Due        |
|-----------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------|------------------|
| Thermal modelling                 | 1                 | 1                | 0                 | Carry out dynamic thermal modelling to demonstrate operative temperatures are in accordance with relevant requirements    | Thermal modelling report | Architect, Energy Consultant and MEP | RIBA Stage 2 - 4 |
| Design for future thermal comfort | 1                 | 1                | 0                 | The thermal modelling analysis is run against a future weather scenario and has informed the temperature control strategy |                          |                                      |                  |
| Thermal zoning and controls       | 1                 | 1                | 0                 |                                                                                                                           |                          |                                      |                  |

| Hea 05: Acoustic Performance (Retail) | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                      | Evidence Requirement                                     | Typical Responsibility | Stage Due    |
|---------------------------------------|-------------------|------------------|-------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------|--------------|
| Sound insulation                      | 1                 | 0                | 1                 | Sound insulation between rooms meets Section 7 of BS 8233:2014 or best practice standard | Acousticians statement and report, confirming compliance | Acoustician            | RIBA Stage 4 |
| Indoor ambient noise level            | 1                 | 0                | 1                 | Indoor ambient noise levels meet BS 8233:2014 design ranges                              |                                                          |                        |              |
| Room acoustics                        | 1                 | 0                | 1                 | Meets sound absorption and reverberation requirements per BS 8233:2014                   |                                                          |                        |              |

| Hea 06: Security              | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                                                     | Evidence Requirement                                                                                                                                   | Typical Responsibility | Stage Due          |
|-------------------------------|-------------------|------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------|
| Security of site and building | 1                 | 0                | 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). Implement the recommendations in the design. | Security Needs Assessment.<br>Design drawings and relevant sections of the specification highlighting all necessary compliant features and dimensions. | Security Specialist    | RIBA Stage 2 and 4 |

| Hea 07: Safe and Healthy Surroundings | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                                                                            | Evidence Requirement                                                                                                                         | Typical Responsibility | Stage Due    |
|---------------------------------------|-------------------|------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Safe access                           | 1                 | 1                | 0                 | Criteria must be met for cycle paths, footpaths, drop-off areas, pedestrian crossings, signposting and access road lighting.<br>Criteria must be met for parking, waiting areas, turning areas and storage areas for delivery / goods vehicles | Design drawings and relevant sections of the specification. highlighting all necessary compliant features, dimensions and outside amenities. | Architects             | RIBA Stage 2 |
| Outside space                         | 1                 | 0                | 0                 | There is an outside space providing building users with an external amenity area (have appropriate seating areas and be non-smoking)                                                                                                           |                                                                                                                                              |                        |              |
| <b>Health and Wellbeing Total</b>     | <b>17</b>         | <b>12</b>        | <b>4</b>          |                                                                                                                                                                                                                                                |                                                                                                                                              |                        |              |

## ENERGY (ENE)

| Ene 01: Reduction of Energy Use and Carbon Emissions | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                               | Evidence Requirement                                                   | Typical Responsibility | Stage Due    |
|------------------------------------------------------|-------------------|------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------|--------------|
| Energy performance                                   | 9                 | 4                | 5                 | Calculate an Energy Performance Ratio for New Construction (EPR NC). Compare the EPR NC achieved with the benchmarks in Table 6.1 | DSM (dynamic simulation modelling) output files from approved software | Energy Consultant      | RIBA Stage 2 |

| Ene 02: Energy monitoring                          | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                | Evidence Requirement                                                       | Typical Responsibility | Stage Due    |
|----------------------------------------------------|-------------------|------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------|--------------|
| Sub-metering of end use categories                 | 1                 | 1                | 0                 | Install energy metering systems so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use                            | Relevant section/clauses of the building specification and design drawings | MEP                    | RIBA Stage 4 |
| Sub-metering of high energy load and tenancy areas | 1                 | 1                | 0                 | Separate accessible energy sub-meters with pulsed or other open protocol communication outputs for future connection to an energy monitoring and management system |                                                                            |                        |              |

| Ene 03: External lighting | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                    | Evidence Requirement                                               | Typical Responsibility | Stage Due    |
|---------------------------|-------------------|------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------|--------------|
| External lighting         | 1                 | 1                | 0                 | External lighting (average luminous efficacy $\geq 70$ ) to include daylight sensors, presence detection and timeclock if appropriate. | External lighting datasheets, drawings, schedules and calculation. | MEP                    | RIBA Stage 4 |

| Ene 04: Low carbon design               | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                             | Evidence Requirement                                                                      | Typical Responsibility           | Stage Due    |
|-----------------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------|--------------|
| Passive design: Passive design analysis | 1                 | 0                | 1                 | Achieve Hea 04 credit for thermal comfort and conduct a passive design analysis | Energy report and Hea 04 evidence                                                         | Architects and Energy Consultant | RIBA Stage 2 |
| Free cooling                            | 1                 | 0                | 1                 | Implementation of free cooling solutions                                        | Ventilation analysis using free cooling methods                                           |                                  |              |
| Low and zero carbon technologies        | 1                 | 1                | 1                 | Undertake a low and zero carbon feasibility study                               | LZC energy strategy with relevant drawings and specifications of the renewable technology |                                  |              |
| <b>Energy Total</b>                     | <b>15</b>         | <b>7</b>         | <b>8</b>          |                                                                                 |                                                                                           |                                  |              |

## TRANSPORT (TRA)

| Tra 01: Transport assessment and travel plan | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                 | Evidence Requirement      | Typical Responsibility | Stage Due    |
|----------------------------------------------|-------------------|------------------|-------------------|-------------------------------------|---------------------------|------------------------|--------------|
| Travel plan                                  | 2                 | 2                | 0                 | Develop a site-specific travel plan | A copy of the travel plan | Transport Consultant   | RIBA Stage 2 |

| Tra 02: Sustainable transport measures | Available Credits | Targeted Credits | Potential Rating | Credit Requirements                                                                                                          | Evidence Requirement                                                                     | Typical Responsibility | Stage Due    |
|----------------------------------------|-------------------|------------------|------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------|--------------|
| Transport options implementation       | 10                | 6                | 4                | AI is > 8.0                                                                                                                  | AI calculation                                                                           | Transport Consultant   | RIBA Stage 2 |
|                                        |                   |                  |                  | Increase AI through negotiation with local bus, train and tram services with dedicated services for this building            | Confirmation from local authority                                                        |                        |              |
|                                        |                   |                  |                  | Provide a dedicated transport information system for inhabitants                                                             | Photograph of system on site                                                             |                        |              |
|                                        |                   |                  |                  | 10% of all car park spaces have electric vehicle charging stations                                                           | Drawings and photographs of units on site                                                |                        |              |
|                                        |                   |                  |                  | Set up car sharing group, promote with marketing provide priority parking spaces for car sharing vehicles                    | Confirmation from car share group and copies of marketing material                       |                        |              |
|                                        |                   |                  |                  | Consult with local authorities on cycling and pedestrian routes. Agree how to improve it and implement on site               | Proof of consultation with local authority, drawings and photos showing measures on site |                        |              |
|                                        |                   |                  |                  | 1 cycle space per 10 staff members                                                                                           | Drawings and photos showing spaces on site                                               |                        |              |
|                                        |                   |                  |                  | Achieve cycle spaces outlined above, and at least two of the following: showers, changing facilities, lockers, drying spaces | Drawings and photos showing facilities on site                                           |                        |              |
|                                        |                   |                  |                  | At least three existing accessible amenities are present, see Table 7.6 on page 191                                          | Map and photos showing amenities                                                         |                        |              |
|                                        |                   |                  |                  | Ensure one or more new amenities are available                                                                               | Drawings and photos showing amenities                                                    |                        |              |
|                                        |                   |                  |                  | Implement a transport improvement measure not outlined above                                                                 | Robust evidence showing measure on site                                                  |                        |              |
| Transport Totals                       | 12                | 8                | 4                |                                                                                                                              |                                                                                          |                        |              |

## WATER (WAT)

| Wat 01: Water consumption | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                   | Evidence Requirement                   | Typical Responsibility | Stage Due    |
|---------------------------|-------------------|------------------|-------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------|--------------|
| Water consumption         | 5                 | 3                | 2                 | Use the BREEAM Wat 01 calculator to assess the efficiency of the domestic water-consuming components. | Component data sheet confirming inputs | MEP                    | RIBA Stage 2 |

| Wat 02: Water Monitoring      | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                       | Evidence Requirement                           | Typical Responsibility | Stage Due    |
|-------------------------------|-------------------|------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------|--------------|
| Water monitoring and metering | 1                 | 1                | 0                 | 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. | Water meter datasheet, schematics and drawings | MEP                    | RIBA Stage 4 |

| Wat 03: Water Leak Detection and Prevention | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                              | Evidence Requirement                                                   | Typical Responsibility | Stage Due    |
|---------------------------------------------|-------------------|------------------|-------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------|--------------|
| Leak detection system                       | 1                 | 0                | 1                 | Install a leak detection system capable of detecting a major water leak                          | Leak detection system datasheet, schematics and drawings               | MEP                    | RIBA Stage 4 |
| Flow Control devices                        | 1                 | 1                | 0                 | Install flow control devices that regulate the water supply to each WC area or sanitary facility | Flow control device product sheet, building specification and drawings |                        |              |
| <b>Water total</b>                          | <b>8</b>          | <b>5</b>         | <b>3</b>          |                                                                                                  |                                                                        |                        |              |

## MATERIALS (MAT)

| Mat 01: Environmental Impacts from Construction Products - Building Life Cycle Assessment | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                   | Evidence Requirement                                                                | Typical Responsibility | Stage Due    |
|-------------------------------------------------------------------------------------------|-------------------|------------------|-------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------|--------------|
| Superstructure                                                                            | 6                 | 0                | 6                 | Carry out a life cycle assessment (LCA) and optimise the use of materials at concept and design stage | Copy of LCA and options appraisal document.<br>Submission results from Mat 01 tool. | Architect / Contractor | RIBA Stage 2 |
| Substructure and hard landscaping options                                                 | 1                 | 1                | 0                 | Optimise substructure and hard landscaping materials at concept stage                                 |                                                                                     |                        |              |

| Mat 02: Environmental Impacts from Construction Products - Environmental Product Declarations (EPD) | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                          | Evidence Requirement                                                      | Typical Responsibility | Stage Due    |
|-----------------------------------------------------------------------------------------------------|-------------------|------------------|-------------------|--------------------------------------------------------------|---------------------------------------------------------------------------|------------------------|--------------|
| Specification of products with a recognised EPD                                                     | 1                 | 1                | 0                 | Use products with environmental product declarations (EPD's) | EPD's from material manufacturers and submission results from Mat 02 tool | Architect/ Contractor  | RIBA Stage 4 |

| Mat 03: Responsible Sourcing of Construction Materials | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                           | Evidence Requirement                      | Typical Responsibility | Stage Due    |
|--------------------------------------------------------|-------------------|------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------|--------------|
| Pre-requisite - Legal and sustainable timber           | -                 | -                | -                 | 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)                   | Written confirmation and contract clauses | Architect / Contractor | RIBA Stage 2 |
| Enabling sustainable procurement plan                  | 1                 | 1                | 0                 | Materials to be sourced in accordance with sustainable procurement plan                                                                                                       | Copy of the Sustainable Procurement Plan  |                        |              |
| Measuring responsible sourcing                         | 3                 | 3                | 0                 | Use the Mat 03 calculator tool and methodology to determine the number of credits achieved for the construction products.<br>1 credit > 10%, 2 credits > 20%, 3 credits > 30% |                                           |                        | RIBA Stage 4 |

| Mat 05: Designing for Durability and Resilience | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                         | Evidence Requirement                                                                                                                    | Typical Responsibility | Stage Due    |
|-------------------------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Designing for durability and resilience         | 1                 | 1                | 0                 | <div> <div>Protections measures incorporated into external and internal design and construction</div> <div>Measures to limit material degradation due to environmental factors</div> </div> | Design drawings/relevant section of the building specification or contract confirming the protection and limiting degradation measures. | Architect              | RIBA Stage 4 |

| Mat 06: Material efficiency | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                | Evidence Requirement         | Typical Responsibility | Stage Due |
|-----------------------------|-------------------|------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|-----------|
| Material efficiency         | 1                 | 1                | 0                 | set targets and report on opportunities and methods to optimise the use of materials throughout the building design, procurement and refurbishment | Documents at each RIBA stage | Architect              |           |
| <b>Material Totals</b>      | <b>14</b>         | <b>8</b>         | <b>6</b>          |                                                                                                                                                    |                              |                        |           |

## WASTE (WST)

| Wst 01: Construction Waste Management            | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                    | Evidence Requirement                                                                   | Typical Responsibility | Stage Due                    |
|--------------------------------------------------|-------------------|------------------|-------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------|------------------------------|
| Pre-demolition audit                             | 1                 | 1                | 0                 | Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition | Copy of pre-demolition audit that also outlines materials that can be re-used recycled | Principle contractor   | RIBA Stage 4<br>RIBA Stage 5 |
| Simple Buildings: Resource Management Plan       | 2                 | 2                | 0                 | Prepare a compliant Resource Management Plan (RMP). Construction waste is lower than targets set out in table 10.1     | A copy of the RMP<br>Calculations for volume of waste and confirmation these were met  |                        |                              |
| Simple Buildings: RMP measurements and reporting | 1                 | 1                | 0                 | Meet the diversion from landfill benchmarks set out in table 10.2                                                      |                                                                                        |                        |                              |

| Wst 02: Recycled Aggregates | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                           | Evidence Requirement                                                                                              | Typical Responsibility | Stage Due    |
|-----------------------------|-------------------|------------------|-------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Recycled aggregates         | 1                 | 0                | 1                 | A high percentage of aggregate used should be recycled or secondary aggregate | Documentation confirming the source of recycled/secondary aggregates and that the required amount can be provided | Principle contractor   | RIBA Stage 5 |

| Wst 03: Operational Waste | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                   | Evidence Requirement                                                                           | Typical Responsibility | Stage Due    |
|---------------------------|-------------------|------------------|-------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| Operational waste         | 1                 | 1                | 0                 | Provide space for segregation/storage of operational recyclable waste | Drawings showing location of bins and storage.<br>Confirmation of size and suitable labelling. | Architects             | RIBA Stage 5 |

| Wst 05: Adaptation to Climate Change | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                   | Evidence Requirement | Typical Responsibility | Stage Due          |
|--------------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------------|----------------------|------------------------|--------------------|
| Adaptation to climate change         | 1                 | 0                | 1                 | Climate change adaptation strategy appraisal for the structural and fabric resilience |                      | Architects             | RIBA Stage 2 and 4 |

| Wst 06: Design for Disassembly and Adaptability | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                             | Evidence Requirement                                                                                                    | Typical Responsibility | Stage Due    |
|-------------------------------------------------|-------------------|------------------|-------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Recommendations                                 | 1                 | 1                | 0                 | A study exploring the ease of disassembly and adaptation of different design scenarios                          | Disassembly and functional adaptability study, implementation plan report, building adaptability and disassembly guide. | Architects             | RIBA Stage 2 |
| Implementation                                  | 1                 | 0                | 1                 | Produce a building adaptability and disassembly guide and outline how the recommendations have been implemented |                                                                                                                         |                        | RIBA Stage 4 |
| <b>Waste Total</b>                              | <b>10</b>         | <b>6</b>         | <b>4</b>          |                                                                                                                 |                                                                                                                         |                        |              |

## LAND USE AND ECOLOGY (LE)

| LE 01: Site Selection    | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                  | Evidence Requirement                                                                                        | Typical Responsibility | Stage Due    |
|--------------------------|-------------------|------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Previously occupied land | 1                 | 1                | 0                 | At least 75% of the proposed development's footprint is on an area of land which has previously been occupied                                        | Site drawings of existing and proposed buildings                                                            | Client                 | RIBA Stage 2 |
| Contaminated land        | 1                 | 0                | 0                 | A contaminated land professional's site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination | Report from contaminated land specialist with confirmation from client that the report has been implemented |                        |              |

| LE 02: Ecological risks and opportunities                                     | Available Credits | Targeted Rating | Potential Credits | Credit Requirements                                                    | Evidence Requirement                               | Typical Responsibility | Stage Due    |
|-------------------------------------------------------------------------------|-------------------|-----------------|-------------------|------------------------------------------------------------------------|----------------------------------------------------|------------------------|--------------|
| Statutory obligations, Survey and evaluation, Determining ecological outcomes | 2                 | 1               | 1                 | Ecologist produces a report: surveying, evaluating and recommendations | A copy of the Ecological report and completed GN40 | Ecologist              | RIBA Stage 2 |

| LE 03: Managing Negative Impact on Ecology | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                     | Evidence Requirement                                                   | Typical Responsibility     | Stage Due    |
|--------------------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------|--------------|
| Ecological risks and opportunities         | -                 | -                | -                 | LE02 has been achieved                                                                                                                                  |                                                                        | Ecologist and project team | RIBA Stage 5 |
| Planning and measures on-site              | 1                 | 1                | 0                 | Roles and responsibilities are defined, site prep and works have been planned and project team and stakeholders have implemented solutions and measures | Meeting minutes from design team outlining ecologist's recommendations |                            |              |
| Managing negative impacts of the project   | 2                 | 1                | 0                 | Ecologist reports upon how ecology has been enhanced in line with GN36                                                                                  | A copy of the Ecological report confirming mitigation measures         |                            |              |

| LE 04: Change and Enhancement of Site Ecology | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                        | Evidence Requirement                                | Typical Responsibility | Stage Due    |
|-----------------------------------------------|-------------------|------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------|--------------|
| Managing negative impacts on ecology          | -                 | -                | 1                 | LE 03 has been achieved                                                                                                    |                                                     | Ecologist              | RIBA Stage 5 |
| Change and enhancement of ecology             | 3                 | 0                | 0                 | Measures have been implemented that enhance ecological value, which are based on input from the project team and ecologist | Completed BREEAM CEEQUAL calculator with drawings   |                        |              |
| Ecological enhancement                        | 1                 | 0                | 0                 | Ecologist reports upon how ecology has been enhanced in line with GN36                                                     | A copy of the Ecological report outlining solutions |                        |              |

| LE 05: Long Term Ecology Management and Maintenance | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                  | Evidence Requirement                                                      | Typical Responsibility     | Stage Due    |
|-----------------------------------------------------|-------------------|------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------|--------------|
| Management and maintenance throughout the project   | -                 | -                | -                 | LE04 has been achieved                                                                                                                               |                                                                           | Landscape and Project team | RIBA Stage 4 |
| Management and maintenance throughout the project   | 1                 | 0                | 1                 | The project team collaborates closely with key stakeholders, considering the collected and shared data to implement effective solutions and measures | Contract of responsibility for management of ecology for the next 5 years |                            |              |
| Landscape and ecology management plan               | 1                 | 0                | 1                 | Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.                                 | Landscape management plan                                                 |                            |              |
| <b>Land Use and Ecology Total</b>                   | <b>13</b>         | <b>4</b>         | <b>3</b>          |                                                                                                                                                      |                                                                           |                            |              |

## POLLUTION (POL)

| Pol 02: Local Air Quality | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                   | Evidence Requirement           | Typical Responsibility | Stage Due    |
|---------------------------|-------------------|------------------|-------------------|-----------------------------------------------------------------------|--------------------------------|------------------------|--------------|
| Plant NOx emissions       | 2                 | 2                | 0                 | NOx emissions for the heating and hot water are limited to <100mg/kWh | Datasheet and heating schedule | MEP                    | RIBA Stage 4 |

| Pol 03: Surface Water Run-off    | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                              | Evidence Requirement                                                                  | Typical Responsibility | Stage Due    |
|----------------------------------|-------------------|------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------|--------------|
| Flood resilience                 | 2                 | 2                | 0                 | A qualified consultant performs a site-specific Flood Risk Assessment (FRA) to confirm the probability of flooding is low                                                                        | A copy of the flood risk assessment                                                   | Hydrologist            | RIBA Stage 2 |
| Surface water run-off            | 2                 | 1                | 0                 | There is a decrease in the impermeable area by 50% or more or All run-off from the roof, including new and existing parts of the building, has been managed on site using source control methods | Calculation results for the pre-and post-development peak rate and volume of run-off. |                        | RIBA Stage 4 |
| Minimising watercourse pollution | 1                 | 1                | 0                 | There is no discharge from the developed site for rainfall up to 5 mm (confirmed by the appropriate consultant)                                                                                  | Surface water run-off report with relevant design drawings and specifications.        |                        |              |

| Pol 04: Reduction of Nighttime Light Pollution | Available Credits | Targeted Credits | Potential Credits | Credit Requirements                                                                                                                                                                                     | Evidence Requirement                                                                   | Typical Responsibility | Stage Due    |
|------------------------------------------------|-------------------|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------|--------------|
| External lighting                              | 1                 | 1                | 0                 | 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. | External lighting drawings and specifications with confirmation of necessary standards | Architect              | RIBA Stage 4 |
| <b>Pollution Totals</b>                        | <b>8</b>          | <b>7</b>         | <b>0</b>          |                                                                                                                                                                                                         |                                                                                        |                        |              |

This report presents a preliminary assessment, which precedes both a formal design stage (DS) assessment and post-construction stage (PCS) assessment. The aim of this report is to demonstrate the potential BREEAM rating of the development at the design stage, and to define the criteria required to achieve a BREEAM rating. It is assumed that all necessary evidence for each credit will be provided for auditing and that these credits will be successfully integrated into both the design and construction phases of the proposed development.

Please note that this project has not been formally registered with BRE Global, the organisation responsible for BREEAM.