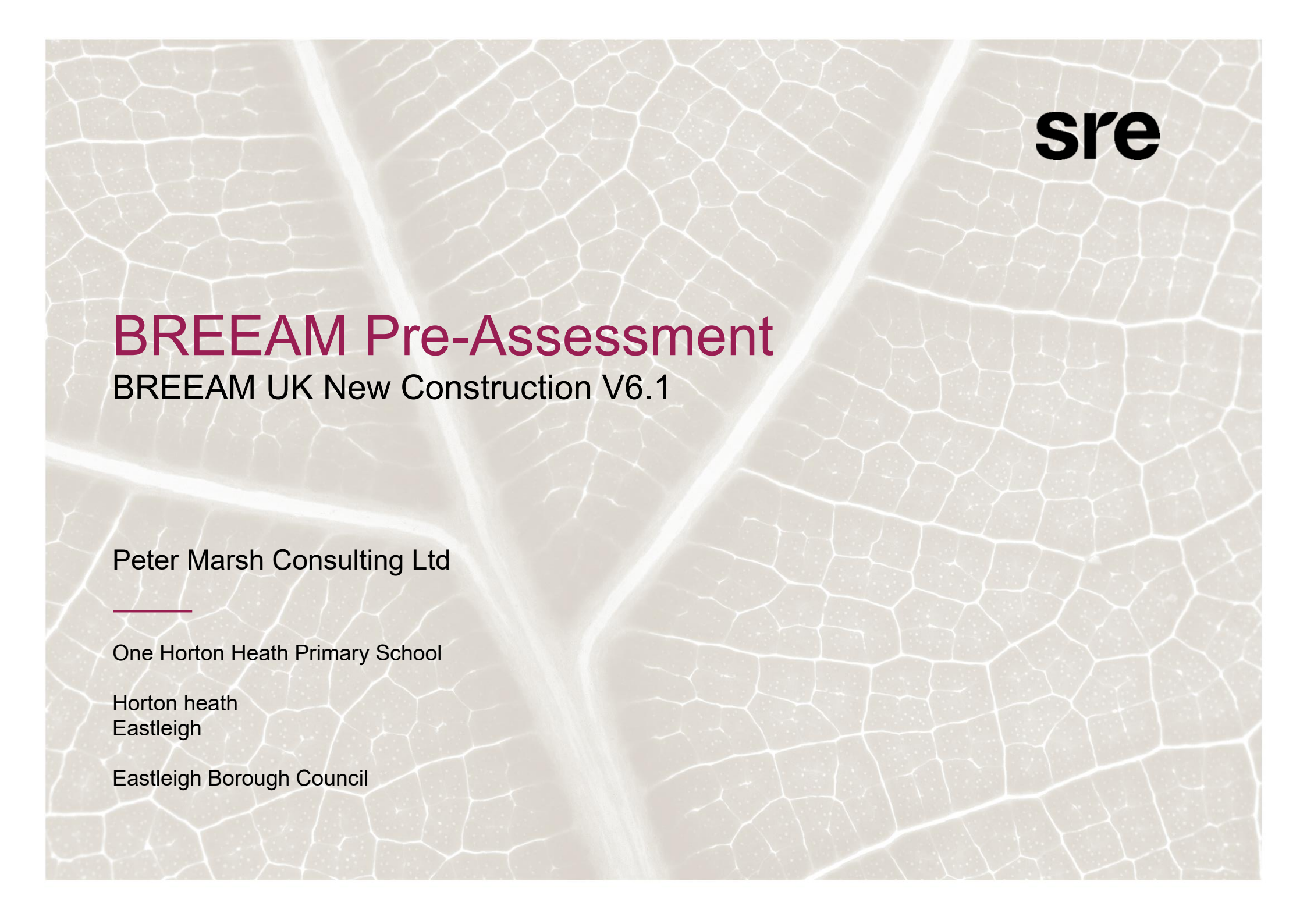




sre

BREEAM Pre-Assessment

BREEAM UK New Construction V6.1

Peter Marsh Consulting Ltd

One Horton Heath Primary School

**Horton heath
Eastleigh**

Eastleigh Borough Council

Version	Revision	Date	Author	Reviewer	Project Manager
1	A	15.08.2025	Max Tankard	Samantha May	Lamya Salem
1	B	02.09.2025	Max Tankard	Samantha May	Lamya Salem
1	C	16.01.2026	Max Tankard	-	Lamya Salem

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The background of the slide is a microscopic image of plant tissue, showing a network of cells with thick, brownish cell walls. On the left side, there is a column of elongated, rectangular cells. The rest of the image is filled with a honeycomb-like pattern of smaller, more rounded cells.

Executive Summary

Executive Summary

SRE exists to ensure that the built environment enhances life without costing the earth. This BREEAM¹ Pre-Assessment has been developed by SRE on behalf of Peter Marsh Consulting Ltd (The Client) to demonstrate the likely BREEAM score of One Horton Heath Primary School, Eastleigh (the Proposed Development).

This 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. SRE has been a licensed BREEAM organisation for over 10 years and has extensive knowledge of the methodology, which is used to produce an accurate assessment score.

Project Name	Premier Inn Sandyford
Lead Assessor	Max Tankard
Target Rating	'Excellent' (>70%)
BREEAM Version	BREEAM UK New Construction Version 6.1
Assessment Type	Education – Primary Schools
BREEAM Type	Fully Fitted

Scenario	Min Standards met?	Score	BREEAM Rating
Targeted credits	Yes	79.39%	Excellent

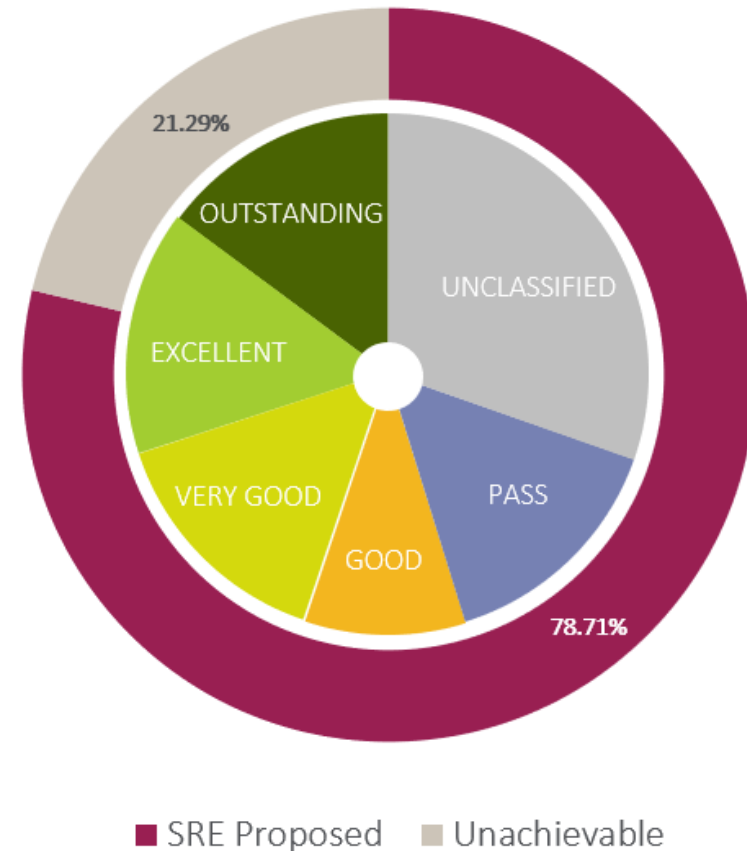
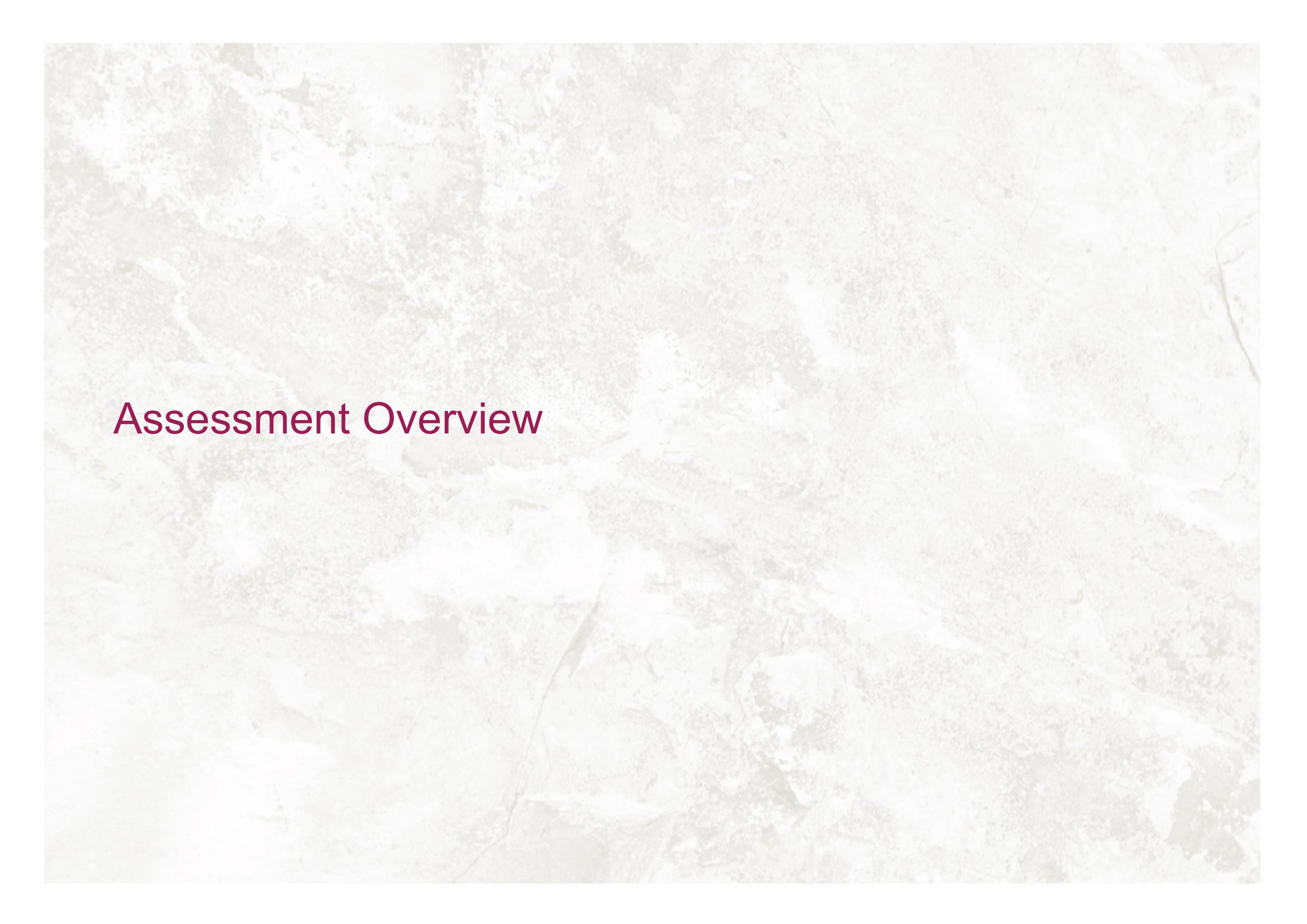


Figure 1 - BREEAM Score Chart for the Proposed Development.

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The background of the slide is a light beige or cream-colored paper with a marbled texture. The marbling consists of irregular, swirling patterns of slightly darker beige and light tan colors, giving it a classic, aged appearance.

Assessment Overview

1.0 Assessment Overview

1.1. Development Overview

The Proposed Development at One Horton Heath, Eastleigh, consists of the new construction of a Primary School, on an existing greenfield site. The resulting development will comprise of halls, teaching areas, office spaces, sports and leisure facilities, together with a staff car park. The Proposed Development will cover a GIFA of 3731m². This space is set to accommodate for 630 number of students, with classes teaching from nursery to year 6.

1.2. Assessment Criteria

The BREEAM Pre-Assessment has shown that the Proposed Development can currently achieve an 'Excellent' rating under BREEAM UK New Construction Version 6.1 (SRE Targeted) based on the assumptions and information agreed to-date.

The BREEAM Assessment will be registered as a 'Fully Fitted' assessment to reflect the scope of the works. The credits included within the assessment are therefore those relevant to the scope of a 'Fully Fitted' assessment.

1.3. BREEAM Score

The target score for the scheme is currently **79.39%**, which will deliver an '**Excellent**' rating. The credits targeted are considered by SRE and the design team to be realistic and deliverable on-site.

BREEAM standards can be challenging to achieve, and the Pre-assessment report should be carefully reviewed by the design and construction teams to ensure all targeted credits are delivered. Sections 2.0 and 3.0 list the specific credits proposed as part of the BREEAM 'Excellent' rating.



Figure 2 - Current model for the Proposed Development.

1.4. BREEAM Minimum Standards

In addition to the minimum score required, compliance with specific credits (known as minimum standards for each targeted rating) is summarised below. If the required minimum standards are not met, the targeted rating will not be achieved regardless of the overall score attained by the project.

Issue	Targeted
Man 03 - Responsible construction practices	✓
Man 04 - Commissioning and handover	✓
Man 04 - Commissioning and handover	✓
Man 05 - Aftercare	✓
Ene 01 - Reduction of energy use and carbon emissions	✓
Ene 02 - Energy Monitoring	✓
Wat 01 - Water Consumption	✓
Wat 02 - Water Monitoring	✓
Mat 03 - Responsible Sourcing of Construction Products	✓
Wst 03 - Operational Waste	✓

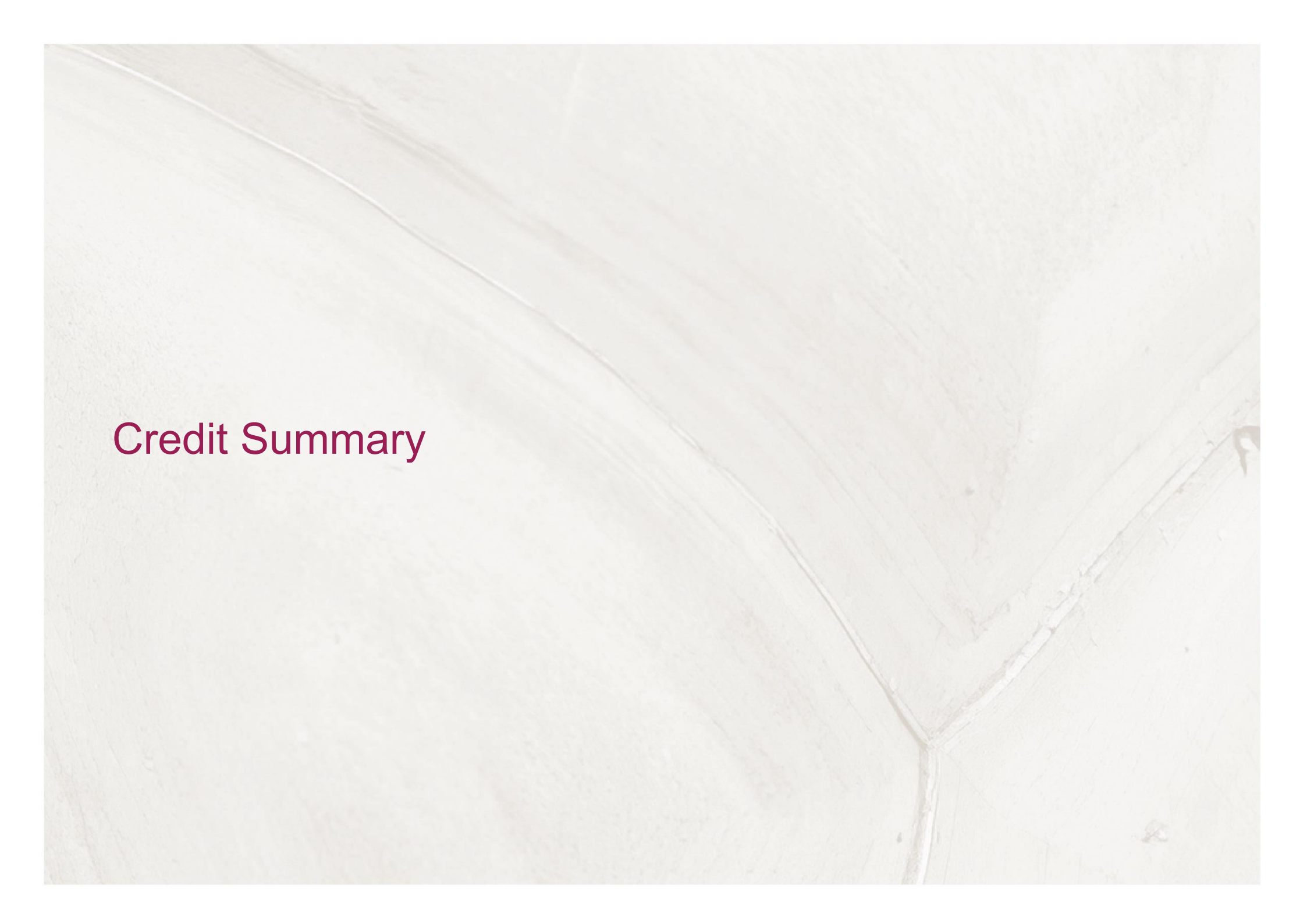
Table 1 – BREEAM UK New Construction Version 6.1 Minimum Standards for an 'Excellent' rating

1.5. Site Assumptions

Site and project assumptions made at the current stage are shown in the Table 2. These assumptions are to be confirmed by the client and the design team so the BREEAM Design Assessment and achieved score are updated accordingly.

Assessment Information	Selection
Building Type	Education
Building Type sub-group	Education – Primary schools
Assessment stage	Design (Interim)
Project scope	Fully Fitted
Building Net internal floor area m ²	3731
Building Gross internal floor area m ²	3731
Is the building designed to be untreated?	No
Building services - heating system type	Other (GSHPs)
Building services - cooling system type	None
Are commercial or industrial-sized refrigeration and storage systems specified?	No
Are building user lifts present?	Yes
Are building user transportation systems (escalators or moving walkways) present?	No
Are laboratories present?	No
Fume cupboard(s) and/or other containment devices	No
Are there any water demands present other than those assessed in Wat 01?	No
Does the building have external areas within the boundary of the assessed development?	Yes
Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space?	No
Are the Post-occupancy stage credits targeted in Ene 01 issue?	No
Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development?	No
Are WC facilities only provided within the residential areas of a long-term residential accommodation?	N/A
Are there any systems specified that contribute to the unregulated energy load?	Yes
Is this a speculative development?	No
Is the project required to connect to a District Heating system, and it supplies all heating and hot water demands to the building?	No

Table 2- Site & Project assumption for BREEAM Assessment



Credit Summary

2.0 Credit Summary

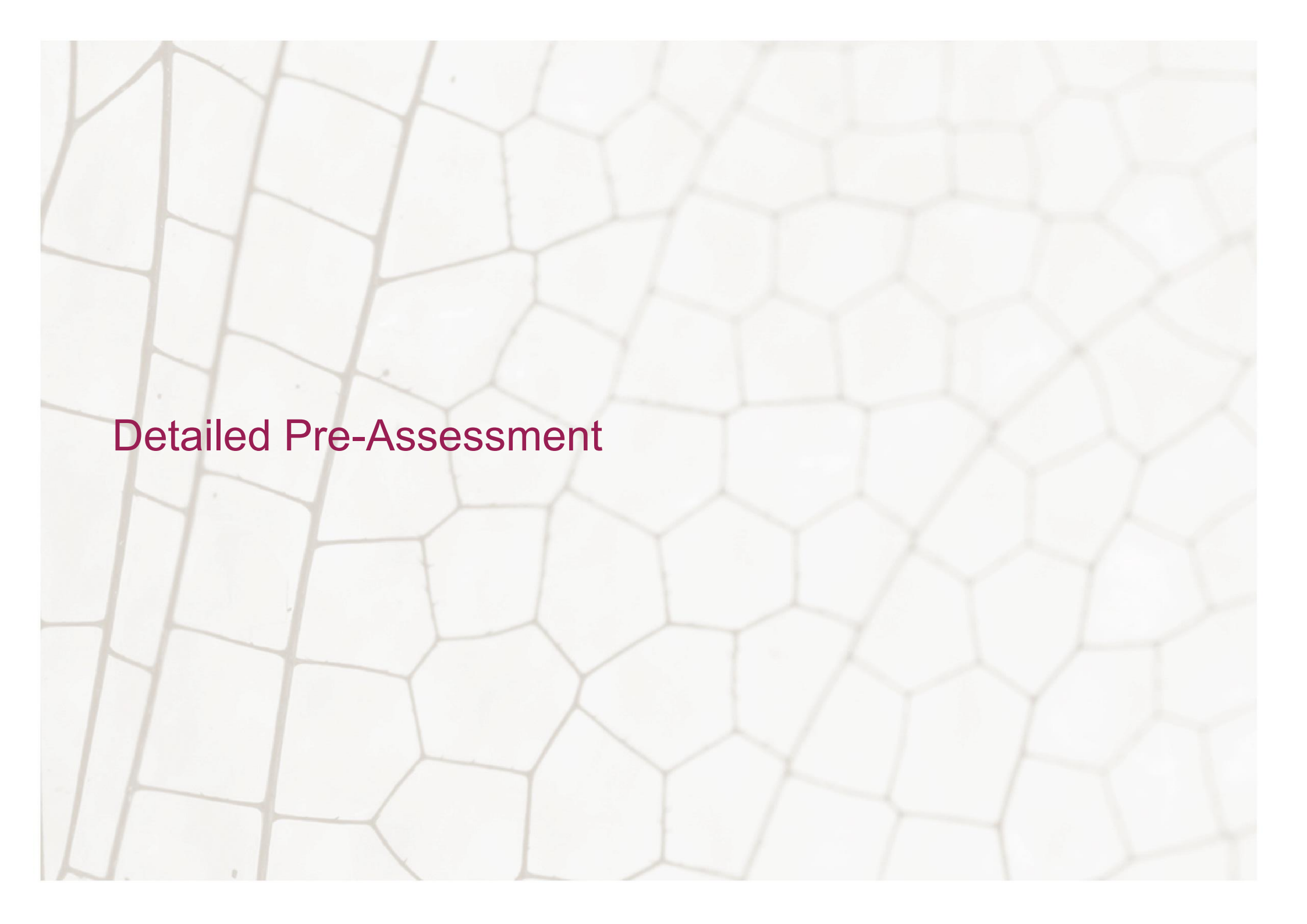
2.1. Summary score sheet

BREEAM Category		Available	Targeted	Potential
Management				
Man 01	Project brief and design	4	4	0
Man 02	Life cycle cost and service planning	4	4	0
Man 03	Responsible construction practices	6	4	2
Man 03 - Exemplary(1)	Responsible construction practices	1	0	0
Man 04	Commissioning and handover	4	4	0
Man 05	Aftercare	3	3	0
Standard Management Credit Total:		21	19	2
Exemplary Management Credit Total:		1	0	0
% Management Total (Standard + Exemplary):		11.92	9.88	1.04
Health & Wellbeing				
Hea 01	Visual comfort	5	5	0
Hea 01 - Exemplary(1)	Visual comfort	1	0	0
Hea 01 - Exemplary(2)	Visual comfort	1	0	0
Hea 02	Indoor air quality	4	2	2
Hea 02 - Exemplary(1)	Indoor air quality	1	0	0
Hea 04	Thermal comfort	3	3	0
Hea 05	Acoustic performance	3	3	0
Hea 06	Security	1	1	0
Hea 06 - Exemplary(1)	Security	1	0	0
Hea 07	Safe and healthy surroundings	2	1	1
Standard Health & Wellbeing Credit Total:		18	15	3

BREEAM Category		Available	Targeted	Potential
Exemplary Health & Wellbeing Credit Total:		4	0	0
% Health & Wellbeing Total (Standard + Exemplary):		18.04	11.70	2.34
Energy				
Ene 01	Reduction of energy use and carbon emissions	13	8	4
Ene 01 - Exemplary(1)	Reduction of energy use and carbon emissions	3	0	0
Ene 01 - Exemplary(2)	Reduction of energy use and carbon emissions	2	0	0
Ene 02	Energy monitoring	1	1	0
Ene 03	External Lighting	1	1	0
Ene 04	Low carbon design	3	2	1
Ene 06	Energy efficient transportation systems	2	2	0
Ene 08	Energy efficient equipment	2	0	2
Standard Energy Credit Total:		22	14	7
Exemplary Energy Credit Total:		5	0	0
% Energy Total (Standard + Exemplary):		21.06	10.22	5.11
Transport				
Tra 01	Transport assessment and travel plan	2	2	0
Tra 02	Sustainable transport measures	10	6	4
Standard Transport Credit Total:		12	8	4
Exemplary Transport Credit Total:		0	0	0
% Transport Total (Standard + Exemplary):		9.96	6.64	3.32
Water				
Wat 01	Water consumption	5	5	0
Wat 01 - Exemplary(1)	Water consumption	1	0	0
Wat 02	Water monitoring	1	1	0
Wat 03	Water leak detection	2	2	0
Standard Water Credit Total:		8	8	0

BREEAM Category		Available	Targeted	Potential
Exemplary Water Credit Total:		1	0	0
% Water Total (Standard + Exemplary):		8.04	7.04	0
Materials				
Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA)	7	7	0
Mat 01 - Exemplary(1)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	0
Mat 01 - Exemplary(2)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	0
Mat 01 - Exemplary(3)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	0
Mat 02	Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	1	0
Mat 03	Responsible sourcing of construction products	4	3	1
Mat 03 - Exemplary(1)	Responsible sourcing of construction products	1	0	0
Mat 05	Designing for durability and resilience	1	1	0
Mat 06	Material efficiency	1	1	0
Standard Materials Credit Total:		14	13	1
Exemplary Materials Credit Total:		4	0	0
% Materials Total (Standard + Exemplary):		18.98	13.91	1.07
Waste				
Wst 01	Construction waste management	4	3	1
Wst 01 - Exemplary(1)	Construction waste management	1	0	0
Wst 02	Use of recycled and sustainably sourced aggregates	1	0	0
Wst 02 - Exemplary(1)	Use of recycled and sustainably sourced aggregates	1	0	0
Wst 03	Operational waste	1	1	0
Wst 05	Adaptation to climate change	1	1	0
Wst 05 - Exemplary(1)	Adaptation to climate change	1	0	1
Wst 06	Design for disassembly and adaptability	2	2	0
Standard Waste Credit Total:		9	7	1
Exemplary Waste Credit Total:		3	0	1
% Waste Total (Standard + Exemplary):		9.03	4.69	1.67

BREEAM Category		Available	Targeted	Potential
Land Use & Ecology				
LE 01	Site selection	2	0	1
LE 02	Ecological risks and opportunities	2	2	0
LE 02 - Exemplary(1)	Ecological risks and opportunities	1	0	1
LE 03	Managing impacts on ecology	3	3	0
LE 04	Ecological change and enhancement	4	3	1
LE 04 - Exemplary(1)	Ecological change and enhancement	1	0	0
LE 05	Long term ecological management and maintenance	2	2	0
Standard Land Use & Ecology Credit Total:		13	10	2
Exemplary Land Use & Ecology Credit Total:		2	0	1
% Land Use & Ecology Total (Standard + Exemplary):		15	10	3
Pollution				
Pol 01	Impact of refrigerants	3	1	1
Pol 02	Local air quality	2	2	0
Pol 03	Flood and surface water management	5	4	0
Pol 04	Reduction of night time light pollution	1	1	0
Pol 05	Reduction of noise pollution	1	0	0
Standard Pollution Credit Total:		12	8	1
Exemplary Pollution Credit Total:		0	0	0
% Pollution Total (Standard + Exemplary):		8.04	5.36	0.67
Innovation				
AI	Approved Innovation	1	0	0
AI - Innovation Credit Total:		0	0	0
% Innovation Total (Standard + Exemplary):		1	0	0
OVERALL TOTALS			102	23
% OVERALL SCORE TOTALS			79.39	18.20

The background of the slide is a microscopic image of plant tissue. On the left side, there are elongated, rectangular cells arranged in a columnar pattern. On the right side, the cells are more rounded and form a hexagonal honeycomb pattern, characteristic of epidermal or mesophyll cells. The text "Detailed Pre-Assessment" is overlaid on the left side of the image.

Detailed Pre-Assessment

3.0 Detailed Pre-Assessment

Credit		Available	Targeted	Potential	Comments
Management					
Man 01 - Project brief and design					
1	Project delivery planning	1	1	0	Project Delivery Planning Targeted - Yes Completed BEFORE end of RIBA Stage 2 (1 credit) Before the end of the Concept Design Stage, evidence is required that the project delivery stakeholders (client representatives, contractors, architects, engineers, cost consultants, etc.) have met to define key roles, responsibilities and contributions for each phase (RIBA Stage) of the project. There must be evidence that the following items are considered when defining these: • End-user requirements • Aims of the design and design strategy • Installation and construction requirements or limitations • Budget and technical expertise • Maintainability and adaptability of the proposal • Operational energy • Requirements for the production of the project and end-user documentation, and for commissioning, training and aftercare support. The project team should also demonstrate how stakeholders' contributions have influenced Initial Project Brief, Project Execution Plan, Communication Strategy and Concept Design. Actions: • Design Team to provide a copy of the project meeting plan, the project execution plan, and the communication strategy.

	Credit	Available	Targeted	Potential	Comments
2	Stakeholder consultation (interested parties)	1	1	0	Stakeholder Consultation (interested parties) (1 credit) Targeted - Yes Complete by end of RIBA Stage 2 Prior to completion of the Concept Design Stage, the design team should consult with all interested parties on matters that cover the minimum consultation content. They should demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design. Interested parties can include: • Actual or intended building users (if known) including facilities management staff or those responsible for the day-to-day operation of the building and grounds. • Representative consultation group from the existing community (if the building is a new development in an existing community) or for a community still under construction. • Existing partnerships and networks that have knowledge of, and experience of working on, existing buildings of the same type. • Potential users of any shared facilities, e.g. operators of clubs and community groups. Minimum consultation content: This is dependent on the building, but can include: • Functionality, build quality and impact (including aesthetics). • Provision of appropriate internal and external facilities (for future building occupants and visitors or users). • Management and operational implications. • Maintenance resources implications. • Impacts on the local community, e.g. local traffic or transportation impact. • Opportunities for shared use of facilities and infrastructure with the community or appropriate stakeholders. • Compliance with statutory (national or local) consultation requirements.

	Credit	Available	Targeted	Potential	Comments
					• Energy use and sustainability measures. • Implementing principles and processes that deliver an inclusive and accessible design. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties should give and receive consultation feedback. Mandatory for Education building types – an independent third party must carry out the consultation exercise i.e. who shall not be involved in the issue in question, and shall not have conflicts of interests resulting from their position. Actions: • Design Team to provide evidence of meetings between third-party stakeholders and how the outcomes of the meetings have influenced the Project Brief and early design options. • Design Team must show they have used a party independent of the of the design process to conduct the necessary consultation exercise, OR; • If the consultation is carried out by an organisation involved in the Design Team, then they must present the assessor with evidence that robustly demonstrates the independence of the consultation process.
3	BREEAM AP (concept design)	1	1	0	BREEAM AP (concept design) (one credit) Targeted - Yes The project team, including the client, must formally agree on strategic performance targets early in the design process with the support of the appointed BREEAM AP. A BREEAM AP should be appointed and involved in the project at an appropriate time and level to:

Credit	Available	Targeted	Potential	Comments
				• Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the overall performance of the project against BREEAM, from their appointment and throughout Concept Design. • Monitor progress against the performance targets agreed between the client and project team throughout all stages after their appointment where decisions critically impact BREEAM performance. • Proactively identify risks and opportunities related to the achievement of the targets agreed under the criterion between the client and project team. • Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. • Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team. Actions: • A BREEAM AP should be appointed for Stage 1-2 and provide the AP report. <i>(SRE have been appointed to provide this service).</i>
4	BREEAM AP (developed design)	1	1	BREEAM AP (developed design) (1 credit) Targeted - Yes For this credit to be achieved, the BREEAM AP (concept design) credit is required. In addition, the BREEAM AP must be involved in the project at an appropriate time and level to: • Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the overall

Credit		Available	Targeted	Potential	Comments
					performance of the project against BREEAM throughout Developed Design. • Monitor progress against the performance targets agreed between the client and project team throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance. • Proactively identify risks and opportunities related to the achievement of the targets agreed between the client and project team. • Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. • Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team. Actions: • A BREEAM AP should be appointed for Stage 3-4 and provide the AP report. <i>(SRE can offer this service for an additional fee, if required).</i>
Man 02 - Life cycle cost and service planning					
1	Elemental LCC	2	2	0	Elemental LCC Targeted - Yes To be completed by end of RIBA Stage 2 (2 credits) A competent person (an individual who has acquired substantial expertise or a recognised qualification for undertaking life cycle costing studies, and who is not professionally connected to a single manufacturer) must be appointed to carry out an outline, entire asset LCC plan before the end of Concept Design (RIBA Stage 2) together with any design options appraisals in line with Standardised method of life cycle costing for construction procurement PD 156865:2008. The ELCC plan is to provide an indication of future replacement costs over a period of analysis as required by the client (e.g. 20, 30, 50 or 60 years). This

	Credit	Available	Targeted	Potential	Comments
					must include service life, maintenance and operation cost estimates. The period of analysis 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). The design team will provide examples to demonstrate 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. Actions: • Client to confirm that a suitably qualified individual will be appointed to perform Elemental LCC calculations before the end of Concept Design (RIBA Stage 2). • The ELCC report will be required prior to the end of Concept Design, as well as evidence to confirm how the ELCC has influenced building and systems design and specification. <i>(SRE have been appointed to provide this service).</i>
2	Component level LCC options appraisal	1	1	0	Component level LCC options appraisal Targeted - Yes To be completed by the end of RIBA Stage 4 (1 credit) A competent person (see definition provided within ELCC above) is to develop a component level LCC options appraisal by the end of Technical Design (RIBA Stage 4). The component level LCC, in line with PD156865: 2008, should include (where present): • Envelope, e.g. cladding, windows, or roofing • Services, e.g. heat source, cooling source, or controls • Finishes, e.g. walls, floors or ceilings

	Credit	Available	Targeted	Potential	Comments
					- External spaces, e.g. alternative hard landscaping, boundary protection. The Component level LCC option appraisal should review all of the above component types (where present). However, it is not necessary to consider every single example cited under each component; only a selection of those most likely to draw valued comparisons. This is to ensure that a wide range of options are considered and help focus the analysis on components which would benefit the most from appraisal. The design team will provide examples to demonstrate 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. Actions: - Component level LCC options appraisal to be produced before the end of the Technical Design Stage (RIBA Stage 4). <i>(SRE can offer this service for an additional fee, if required).</i>
3	Capital cost reporting	1	1	0	Capital cost reporting (1 credit) Targeted - Yes The capital cost of the project must be formally stated in the BREEAM assessment, measured in £k/m². Written confirmation of the anticipated cost is to be provided during the Design Stage, with final confirmation of the actual cost provided at the end of the project during the Post-Construction Stage assessment. The capital cost for the building should include the following expenses related to the initial construction of the building: - Construction, including preparatory works, materials, equipment and labour - Site management - Construction financing - Insurance and taxes during construction

Credit		Available	Targeted	Potential	Comments
					- Inspection and testing Costs related to land procurement, clearance, design, statutory approvals and post occupancy aftercare are not included. Actions: - Quantity Surveyor to confirm that written confirmation of the final capital cost of the project in £k/m² will be provided.
Man 03 - Responsible construction practices					
Pre-req 1	Prerequisite - Legally harvested and traded timber		✓	✗	Prerequisite - All timber and timber-based products used on the project to be 'Legally harvested and traded timber'. The requirements outlined by the UK Government Timber Procurement Policy (TPP) need to be followed, in that they must be covered by third-party independent forest certification schemes Category A (e.g. FSC or PEFC). Actions: The appointed Main Contractor must commit to sourcing all Timber products for the site in line with the definition of 'Legally harvested and traded timber', chosen based on the above certification.
1	Environmental management	1	1	0	Environmental Management (1 credit) Targeted - Yes The appointed principal contractor and demolition contractor must hold a certified Environmental Management System (ISO 14001:2015/EMAS). The EMS must be third party certified or, in compliance with BS 8555: 2016, have appropriate structure, have reached implementation stage phase four implementation and operation of the environmental management system and have completed defined phase audits one to four. In addition, they are required to implement best practice pollution prevention policies and procedures on site in accordance with PPG6.

	Credit	Available	Targeted	Potential	Comments
					Actions: Client to ensure that the Main Contractor and Demolition Contractors appointed have ISO 14001/EMAS certification, and the commitment to implementing Pollution Prevention Guideline (PPG6) has been made.
2	BREEAM AP (site)	1	1	0	BREEAM AP (site) (1 credit) Targeted - Yes <u>Pre-requisite:</u> The Client and appointed contractor must ensure the performance targets for the development are formally agreed. Following agreement of the performance targets, a BREEAM AP should be appointed and involved in the project at an appropriate time and level to: - 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 projects performance against the agreed performance targets throughout the Construction, Handover and Close Out stages. - Monitor construction progress against the performance targets agreed under criterion 5 above throughout all stages where decisions critically impact BREEAM performance. - Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5 above. - Provide feedback to the constructors and the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. - Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor. Actions:

	Credit	Available	Targeted	Potential	Comments
					Main Contractor to ensure that a BREEAM AP is appointed during the construction stage to ensure that performance standards are achieved.
3	Responsible construction management	2	1	1	Responsible construction management (2 credits) Targeted – Yes (1 credit, 1 potential) Mandatory – One credit is required to achieve an ‘Excellent’ rating and above. Team members are to be assigned responsibility for reporting and monitoring the items listed within Table 4.1 of the BREEAM NC V6.1 manual. Credits are achieved as follows: One credit: As a minimum, achieve 9 of the items listed in table 4.1 of the manual, namely: a, d, f, g, h, j, n, o & r – Targeted. - Two credits: Achieve six additional credits from table 4.1 as well as the criterion above required for one credit – Potential. As per BREs GN33, The Considerate Constructors Scheme (CCS), or equivalent, can be used in support of the delivery of the above measures. The BREEAM requirements can be demonstrated by providing formal certification under the CCS scheme to the detailed level (together with a copy of the final monitor’s report). Following the BRE guidance note KBCN1500, the CCS credit requirements (following the CCS post-2022 update) are as follows: One credit requires a minimum of 9 points per section and 27 overall. Alongside this, additional evidence is required to confirm that mandatory items a, f, g, h, j, n, o & r have been achieved – Targeted. - Two credits require a minimum of 11 points per section and 35 overall. Alongside this, additional evidence is required to confirm that mandatory items a, f, g, h, j, n, o & r have been achieved – Potential. Actions:

	Credit	Available	Targeted	Potential	Comments
					Project Team to ensure the appointed Main Contractor commits to achieving the above. If CCS is used, this needs to be registered to support these 2 credits.
4	Monitoring of construction site impacts	2	1	1	Monitoring of construction site impacts (2 credits) Targeted - Yes (1 credit, 1 potential) Responsibility is to be assigned 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. First monitoring credit utility consumption (energy and water) The assigned individual is to: - Set targets for the site energy consumption in kWh as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. - Set targets for the potable water consumption (m3) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. - Monitor and record data as described above. Second monitoring credit transportation of materials and waste The assigned individual is to: - 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 this will cover transport from the point of supply to the building site, including any transport, intermediate

Credit		Available	Targeted	Potential	Comments
					- storage and point of supply. Materials used in major building elements will be monitored as a minimum. Transport from the construction gate to the waste disposal processing should also be monitored, covering construction waste groups outlined in the project's resource management plan. - Monitor and record data as described above. Actions: - Project Team to ensure the appointed Main Contractor commits to monitoring energy and water (one credit – Targeted) and transport of materials on site and transport of waste (one credit – Potential).
e1	Responsible construction management	1	0	0	Responsible construction management Targeted - No The Main Contractor must achieve all items listed in Table 4.1. If the Considerate Constructors Scheme (CCS) is used, this will require the achievement of a minimum of 13 points per section and 39 overall, with additional evidence provided to confirm that items g, p & q have been achieved. Actions: Project Team to ensure the appointed Main Contractor commits to achieving the above. If CCS is to be used, confirmation of registration is required.
Man 04 - Commissioning and handover					
Pre-req	Prerequisite (Very Good to Outstanding)		✓	✗	Prerequisite - Mandatory to achieve a Very Good to Outstanding level The commissioning test schedule and responsibilities credit must be achieved. A Building user guide to be provided as a minimum requirement to achieve a 'Very Good' rating.

Credit	Available	Targeted	Potential	Comments
1	Commissioning - testing schedule and responsibilities	1	1	0 Commissioning - testing schedule and responsibilities (1 credit) Targeted - Yes Mandatory - This credit is required for 'Very Good' rating to be achieved A schedule of commissioning and testing must be produced which identifies and includes a suitable time scale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric. The schedule should identify the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with Current Building Regulations, BSRIA guidelines, CIBSE guidelines, and other appropriate standards. Any processes or manufacture-related equipment specified as part of the project should be excluded from the assessment. However, include such equipment in cases where they form an integral part of the building HVAC services, such as some heat recovery systems. An appropriate project team member should be appointed to monitor and programme pre-commissioning, commissioning and testing. Where necessary include re-commissioning activities on behalf of the client. The principal contractor must account for the commissioning and testing programme, responsibilities and criteria within their budget and the main programme of works. The required time to complete all commissioning and testing activities prior to handover must be allowed for. Actions: Project Team to ensure the appointed Main Contractor will account for a commissioning and testing schedule within the project's budget and ensure that these are provided at the post-construction stage.
2	Commissioning - design and preparation	1	1	0 Commissioning - design and preparation (one credit) Targeted - Yes

	Credit	Available	Targeted	Potential	Comments
					For this credit to be achieved, the criteria within Commissioning - testing schedule and responsibilities above must be met. During the design stage, the client or the principal contractor must appoint an appropriate project team member, provided they are not involved in the general installation works for the building services systems, with responsibility for: • Undertaking design reviews and giving advice on suitability for ease of commissioning. • Providing commissioning management input to construction programming and during installation stages. • Management of commissioning, performance testing and handover or post-handover stages. For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager. i.e.: • air-conditioning, comfort cooling, mechanical ventilation, displacement ventilation, complex passive ventilation, BMS, renewable energy sources, microbiological safety cabinets and fume cupboards, cold storage enclosures and refrigeration plant. Actions: • Project team to ensure the appointed Main Contractor commits to ensuring systems are commissioning in accordance with the above, prior to handover.
3	Testing and inspecting building fabric	1	1	0	Testing and inspecting building fabric (one credit) Targeted – Yes For this credit to be achieved, the criteria within Commissioning - testing schedule and responsibilities above must be met. In addition:

	Credit	Available	Targeted	Potential	Comments
					- 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 must be performed (through airtightness testing and a thermographic survey). A suitably qualified professional (see definition below) must undertake the survey and testing in accordance with the appropriate standard. - Any defects identified during post-construction testing and inspection must be rectified 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. Suitably Qualified Professional: <u>Airtightness testing</u>: Membership of Air Tightness Testing and Measurement Association (ATTMA) or Independent Air Tightness Testing Scheme (IATS) attained at organisational level. <u>Thermographic survey</u>: Professionals holding a valid Category 2 or RQF (Regulated Qualifications Framework) Level 4. Alternatively, the survey can be undertaken by a Category 1 thermographer and then the images interpreted by a Category 2 or Level 4 thermographer. Actions: - Project Team to ensure the appointed Main Contractor commits to organising post-construction testing and any required remedial work before project handover, and that the airtightness testing and a thermographic survey are included in the project's budget.
4	Handover	1	1	0	Handover (1 Credit) Targeted - Yes Mandatory - This credit (criterion 11 only) is required for a 'Very Good' rating <u>Building User Guides (BUGs):</u>

Credit	Available	Targeted	Potential	Comments
				Prior to handover, two building user guides (BUGs) must be developed for the following users: 1. A non-technical user guide for distribution to the building occupiers. 2. A technical user guide for the premises facilities managers. The BUGs should provide building-specific or site-specific guidance, and include information on the following: • Overview of the building and its environmental strategy, e.g. energy, water or waste efficiency policy or strategy, and how users should engage with and deliver the policy or strategy. • Provision of, and access to, shared facilities. • Safety and emergency information or instructions. • Building-related operational procedures specific to building type or operation, e.g. laboratories. • Building-related incident reporting and feedback arrangements. • Provision of and access to transportation facilities, e.g. public transport, cyclist facilities, pedestrian routes etc. • Provision of and access to local amenities. • Links, references and relevant contact details. • Additionally, for the non-technical building user guide for building occupiers: • Building services overview and access to building occupant controls, e.g. where to find them, what they control, how to operate effectively and efficiently etc. • Pre-arrival information for visitors, e.g. access and security procedures or provisions. • Additionally, for the technical building user guide for facilities managers: • Building services overview and access to facilities management controls, e.g. where to find them, what they control, how to operate effectively and efficiently etc. • Refit, refurbishment and maintenance arrangements or considerations

Credit	Available	Targeted	Potential	Comments
				- Building related training information or links. A draft copy should be developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users. <u>Training Schedules:</u> Additionally, two training schedules should be prepared, timed appropriately around handover and proposed occupation plans for the following users: - A non-technical training schedule for the building occupiers. - A technical training schedule for the premises facilities managers. The training schedules should include the following as a minimum: - The buildings design intent. - Additionally, for the building occupiers" training schedule: - Introduction to the non-technical building user guide for building occupiers and other relevant building documentation. Additionally, for the facilities managers" training schedule: - The available aftercare provision and aftercare team main contacts, including any scheduled commissioning and post occupancy evaluation. - Introduction to, and demonstration of, installed systems and key features, particularly building management systems, controls and their interfaces. - Introduction to the technical building user guide for facilities managers" and other relevant building documentation, e.g. design data, technical guides, maintenance strategy, operations and maintenance (O&M) manual, commissioning records, log book etc. - Maintenance requirements, including any maintenance contracts and regimes in place.

Credit		Available	Targeted	Potential	Comments
					The guides and training schedules should include, as far as possible, all relevant sections regarding the services and fabric installed. On completion of works the building owner, agent or user hands it over to the fit-out contractor, who can then complete the relevant sections based on the fit-out strategy. Actions: Two BUGs and training schedules will be required from the Main Contractor at the Post-construction stage, before handover takes place. The Main Contractor must commit to producing and discussing the BUG with building users, and providing the relevant training to building users in line with the training schedule, prior to handover. <i>(SRE can offer this service for an additional fee, if required).</i>
Man 05 - Aftercare					
1	Aftercare support	1	1	0	Aftercare Support (1 credit) Targeted - Yes The Main Contractor must provide aftercare support to the building occupiers in the first year of building occupation, including as a minimum: - A meeting between the aftercare support team or individual, and the building occupier or management team (prior to initial occupation, or as soon as possible thereafter) to: introduce the aftercare support available (including the content of the building user guide and training schedule) and present key information about features of the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible. - On-site facilities management training including: a walkabout of the building AND introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. - Initial aftercare support for at least the first month of building occupation, e.g. weekly attendance on-site, to support building users and

	Credit	Available	Targeted	Potential	Comments
					management (the level of frequency will depend on the complexity of the building and building operations). - Longer term aftercare support for occupiers for at least the first 12 months from occupation, e.g. a helpline, nominated individual or other appropriate system to support building users and management. Operational infrastructure and resources must also be established to coordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months once the building is substantially occupied. This facilitates analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and user behaviours accordingly. Actions: - Project Team to ensure the appointed Main Contractor commits to the above aftercare provision for the first year of building occupation.
2	Commissioning - implementation	1	1	0	Commissioning Implementation (1 credit) Targeted – Yes Mandatory – this credit is required for an ‘Excellent’ rating and above. The appointed contractor must perform the following commissioning activities over a minimum 12-month period once the building becomes substantially occupied: <u>Complex systems: The specialist commissioning manager needs to:</u> - Identify changes made by the owner or operator that might have caused impaired or improved performance. - Test all building services under full load conditions. - Where applicable, carry out testing during periods of extreme high or low occupancy. - Interview building occupants to identify problems or concerns regarding the effectiveness of the systems.

Credit		Available	Targeted	Potential	Comments
					- Produce monthly reports comparing sub-metered energy performance to the predicted one. - Identify inefficiencies and areas in need of improvement. - Re-commission systems (following any work needed to serve revised loads), and incorporate any revisions in operating procedures into the operations and maintenance (O&M) manuals. <u>Simple systems (naturally ventilated): The external consultant, aftercare team or facilities manager needs to:</u> - Review thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback. - Identify deficiencies and areas in need of improvement. - Re-commission systems and incorporate any relevant revisions in operating procedures into the O&M manuals. Actions: - Project Team to ensure the appointed Main Contractor commits to the above and accounts for post-occupancy commissioning activities within the project's budget.
3	Post occupancy evaluation (POE)	1	1	0	Post-occupancy evaluation (POE) (1 credit) Targeted - Yes - The client or building occupier must commit to carry out a POE exercise one year after the building is substantially occupied to gain comprehensive in-use performance feedback and identify gaps between design intent and in-use performance. - An independent party must carry out the POE. - The POE should cover a review of the design intent and construction process (review of design, procurement, construction and handover processes). It should also include feedback from a wide range of

Credit		Available	Targeted	Potential	Comments
					building users including facilities management on the design and environmental conditions of the building covering internal environmental conditions (light, noise, temperature, air quality), control, operation and maintenance, facilities and amenities, access and layout, energy and water consumption and other relevant issues, where appropriate. - The independent party should provide a report with lessons learned to the client and building occupiers. - The client or building occupier must commit funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE as described above. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance. Actions: - Client to confirm whether the above will be implemented and account for the appointment of an independent party to perform the POE within the project budget. <i>(SRE can offer this service for an additional fee, if required).</i>
		21	19	2	Standard Management Credit Total
		1	0	0	Exemplary Management Credit Total
		11.92	9.88	1.04	% Management Total (Standard + Exemplary)
Health & Wellbeing					
Hea 01 - Visual comfort					
1	Control of glare from sunlight	1	1	0	Glare Control (1 credit) Targeted - Yes A glare control assessment must be performed to both identify areas at risk of glare and justify those deemed not at risk. Where the glare control has identified areas at risk of glare within a relevant building area (areas where lighting and resultant glare could be problematic for

Credit	Available	Targeted	Potential	Comments	
				users, e.g. those areas that have been designed to contain or use workstations, projector screens etc. and sports halls), a glare control strategy must be specified to design out the potential for glare. The glare control strategy must maximise daylight levels in all weather, cloudy or sunny (to ensure energy used for lighting does not increase) AND ensure the use or location of shading does not conflict with the operation of lighting control systems. Compliant shading measures for meeting glare control criteria can include: • building-integrated measures (e.g. overhangs or fins) • occupant-controlled devices such as opaque Venetian or close weave fabric blinds, (where the openness factor of blinds is 1% or less, and where the fabric light transmittance value is < 0.1 (10%)) • external shading or brise soleil or a combination of the above. Actions: • Project Team to ensure that a glare control assessment is performed to identify areas at risk of glare, and specify appropriate glare control measures accordingly. <i>(SRE can offer this service for an additional fee, if required).</i>	
2	Daylighting (building type dependent)	2	2	0	Daylighting (2 credits) Targeted - Yes The Daylighting criteria for Education developments must be met through EITHER Option A or Option B. <u>Option A:</u> The relevant building areas meet good practice daylight factors and other criteria as outlined below:

Credit	Available	Targeted	Potential	Comments	
				80% of all occupied spaces achieve a 2% average daylight factor AND either 1 OR 2: 1. A uniformity ratio of at least 0.3 or a minimum point daylight factor of at least 0.3 times the relevant daylight factor (2%). Spaces with glazed roofs, such as atria, must achieve a uniformity ratio of at least 0.7 or a minimum point daylight factor of at least 0.7 times the relevant average daylight factor value (2%). 2. At least 80% of the room has a view of the sky from a desk or tabletop height (0.7m in other buildings). The room depth criterion $d/w + d/HW < 2/(1-RB)$ is also satisfied. Option B: The relevant building areas meet good practice average and minimum point daylight illuminance criteria below: • 80% of all occupied spaces achieve an average daylight illuminance (averaged over the entire space) of at least 300 lux for 2000 hours per year or more. • 80% of all occupied spaces achieve a minimum daylight illuminance at the worst lit point of at least 90 lux for 2000 hours per year or more. Actions: • Project Team to perform daylight modelling (ideally before planning) to confirm the occupied spaces of the development achieve the above daylighting levels. <i>(SRE can offer this service for an additional fee, if required).</i>	
3	View out	1	1	0	View Out (1 credit) Targeted - Yes 95% of the floor area in 95% of spaces for each relevant building area must

Credit	Available	Targeted	Potential	Comments
				achieve adequate view out: building areas are within 8m of an external wall which has a window/opening of $\geq 20\%$ of the surrounding wall area and at a seated eye level (1.2–1.3m), the view out should be of a landscape or buildings (rather than just the sky). Relevant building areas are those that: • There are or will be workstations or benches or desks for building users. • Close work will be undertaken or visual aids will be used. Actions: • Architect to confirm whether the above criteria are achievable for the Proposed Development.
4	Internal and external lighting levels, zoning and control	1	1	Internal/External lighting and zoning controls (1 credit) Targeted - Yes All internal lighting is to be designed to provide illuminance levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7. Internal lighting is to be zoned to allow for occupant control. Zoning must be in accordance with the criteria below for the relevant areas present in the building (relevant areas present have been assumed at this stage - Project team to provide further clarification of spaces to be zoned): • In office areas, zones of no more than four workplaces • Workstations adjacent to windows or atria and other building areas separately zoned and controlled • Library spaces: separate zoning of stacks, reading and counter areas • Teaching space or demonstration area • Whiteboard or display screen

Credit	Available	Targeted	Potential	Comments	
				- Dining, restaurant, café areas: separate zoning of servery and seating or dining areas Building type specific: For teaching spaces - lighting controls provided are designed in accordance with CIBSE Lighting Guide 5. Manual lighting controls are easily accessible for the teacher while teaching and on entering or leaving the teaching space. Manual lighting controls need only be provided for staff, not the children. Small spaces (less than 40m²) Buildings consisting entirely of small rooms or spaces (less than 40m²) which do not require any subdivision of lighting zones or control will meet the zoning criteria by default. The following areas are excluded from the lighting zone requirements: - Media and arts production spaces - Sports facilities External lighting is to be provided in accordance with BS 5489-1:2013 and BS EN 12464-2:2014. Actions: - M&E Consultant to confirm the internal and external lighting will be specified in line with the above.	
e1	Daylighting (building type dependent)	1	0	0	Exemplary level criteria – Daylighting Targeted – No <u>Pre-requisite:</u> It is required that the criteria outlined for the relevant building type in table 5.1 and table 5.2 concerning uniformity ratio (a), view of sky (b) or room depth criterion (c) are met where they are used to demonstrate compliance.

Credit	Available	Targeted	Potential	Comments
				The exemplary daylighting criteria for Education developments must be met through EITHER Option A or Option B. Option A: 80% of all occupied spaces achieve a 3% average daylight factor AND either 1 OR 2: 1. Where used, a minimum point daylight factor of 1.2% 2. A minimum point daylight factor of 2.1% for spaces with glazed roofs, such as atria Option B: The relevant building areas meet exemplary level average illuminance and minimum point daylight illuminance criteria below: • 80% of all occupied spaces achieve an average daylight illuminance (averaged over the entire space) of at least 300 lux for 2650 hours per year or more. • 80% of all occupied spaces achieve a minimum daylight illuminance at the worst lit point of at least 90 lux for 2650 hours per year or more. Actions: • Credit not assumed at present. M&E consultant to confirm whether the above is achievable for the proposed development.
e2	Internal and external lighting levels, zoning and control	1	0	Exemplary level criteria - Internal and external lighting levels, zoning and control Targeted - No Lighting in each zone should be able to be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. Dimming and control gear should avoid flicker and noise. Actions:

Credit		Available	Targeted	Potential	Comments
					Credit not assumed at present. M&E consultant to confirm whether the above is achievable for the proposed development.
Hea 02 - Indoor air quality					
Pre-req	Prerequisite - Indoor air quality (IAQ) plan		✓	✗	Prerequisite - *This is required for any of the credits within Hea 02 to be achieved* A site-specific IAQP should be produced and implemented in accordance with Guidance Note 6 (GN06). The purpose of the plan is to minimise internal air pollution during the building's occupation and must cover the following: - Removal of contaminant sources - Dilution and control of contaminant sources - Procedures for pre-occupancy flush out and purge ventilation - Third party testing and analysis - Maintaining good indoor air quality in-use - Any relevant local authority plans or policies Actions: - Project team to provide an IAQP prior to works beginning on the site. <i>(SRE can offer this service for an additional fee, if required).</i>
1	Ventilation	1	1	0	Ventilation (1 credit) Targeted - Yes The building has been designed to minimise the indoor concentration and recirculation of pollutants in the building as follows: Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation - Building Bulletin 101 (Guidelines on ventilation, thermal comfort and indoor air quality in schools) or BS EN 13779 (excludes naturally ventilated buildings).

Credit	Available	Targeted	Potential	Comments
				- Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building. Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 16798-3:20171. The specified filters should achieve supply air classification of at least SUP 2. Areas of the building subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO₂) or air quality sensors specified in accordance with Building Regulations ADF2 and: - In mechanically ventilated buildings or spaces: sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space - In naturally ventilated buildings or spaces: sensors either have the ability to alert the building owner or manager when CO₂ levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, i.e. automatic opening windows or roof vents. The ventilation strategy provides adequate ventilation rates throughout the year, including sufficient airflow rates in summer to prevent overheating and maintain required thermal comfort conditions, in accordance with: - CIBSE AM10 for naturally ventilated buildings - CIBSE AM13 for mixed-mode buildings Actions: - Project team/MEP to confirm the ventilation system specified for the Proposed Development and that the above criteria will be met.
2	Emissions from construction products	2	1	VOCs (Products) (2 credits) Targeted – Yes (1 credit, 1 potential)

Credit	Available	Targeted	Potential	Comments
				For 1 credit (Targeted), three of the following categories must achieve the standards set out in the BREEAM NC V6.1 Technical Manual (Table 5.11) in addition to <u>all wood-based products being classified as formaldehyde E1</u>: • Interior paints and coatings • Wood-based products • Flooring materials • Ceiling, wall, acoustic and thermal insulation materials • Interior adhesives. For all 2 credits, all of the <u>product types</u> listed in BREEAM table 5.11 (interior paints and coatings; wood-based products; flooring materials; ceiling, wall and acoustic and thermal insulation materials, and interior adhesives and sealants) must meet the emission limits, testing requirements and additional requirements listed in the table. Actions: • Architect to confirm that the relevant products specified will meet the standards outline above/set out within the Table 5.11 of the BREEAM NC V6.1 Technical Manual.
3	Post-construction indoor air quality measurement	1	0	Post-construction indoor air quality measurement (1 credit) Targeted - No (Potential) The formaldehyde concentration in indoor air is measured post-construction (but pre-occupancy) and does not exceed 100g/m averaged over 30 minutes (World Health Organization guidelines for indoor air quality: Selected pollutants, 2010). The formaldehyde sampling and analysis is performed in accordance with ISO 16000-2 and ISO 16000-3. The total volatile organic compound (TVOC) concentration in indoor air is measured post-construction (but pre-occupancy) and does not exceed 500g/m over 8 hours.

Credit		Available	Targeted	Potential	Comments
					The TVOC sampling and analysis is performed in accordance with ISO 16000-5 and ISO 16000-6 or ISO 16017-1. Where levels are found to exceed these limits, the project team confirms the measures that have, or will be, undertaken in accordance with the IAQ plan, to reduce the TVOC and formaldehyde levels to within the above limits. Actions: - To achieve this credit, the Project Team must ensure that the appointed Main Contractor organises air quality testing prior to handover and the testing and any required remediation is accounted for within the project's budget. - This credit has not been assumed due to high costs. Marked as potential.
e1	Minimising sources of air pollution - Emissions from construction products	1	0	0	Minimising sources of air pollution - Emissions from construction products Targeted – No <u>Pre-requisite:</u> Must achieve all of the product types listed in BREEAM table 5.11 under 'emissions from construction products' credit (2 credits) AND, three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12. In addition to <u>all wood-based products being classified as formaldehyde E1:</u> - Interior paints and coatings - Wood-based products - Flooring materials - Ceiling, wall, acoustic and thermal insulation materials - Interior adhesives. Actions:

Credit		Available	Targeted	Potential	Comments
					- Architect to confirm that the relevant products specified will meet the standards outline above/set out within the Table 5.12 of the BREEAM NC V6.1 Technical Manual. - This credit has not been assumed due to challenging benchmarks.
Hea 04 - Thermal comfort					
1	Thermal modelling	1	1	0	Thermal modelling (1 credit) Targeted – Yes To be carried out prior to planning submission. Thermal modelling must be undertaken using software in accordance with CIBSE AM11 Building Energy and Performance Modelling. The simulation must provide full dynamic thermal analysis, whilst also meeting the criteria set out in CIBSE Guide A Environmental design if the building is to be mechanically/naturally ventilated in addition to CIBSE TM52 & TM59 if naturally ventilated (note: this is also linked to Ene04). Modelling must demonstrate that: - For <u>air-conditioned buildings</u>, summer and winter operative temperature ranges are in accordance with CIBSE Guide A Environmental Design for both current and projected climate change scenarios – assumed - For <u>naturally ventilated buildings</u>, winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design. The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in either CIBSE TM52 or CIBSE TM59. Thermal modelling assumptions must be reasonable and represent typical use patterns and loads given the parameters and function of the building. Thermal modelling may need to be completed on the basis of a typical notional layout. Actions:

Credit	Available	Targeted	Potential	Comments
				Project Team to ensure that thermal modelling is performed prior to planning submission. <i>(SRE can offer this service for an additional fee, if required).</i>
2	Design for future thermal comfort	1	1	Design for future comfort (1 credit) Targeted - Yes The above modelling criteria must be achieved. Where this is not possible, it should be demonstrated how the building has been adapted or designed to be easily adapted in future using passive design solutions to achieve compliance. Actions: Project Team to ensure that thermal modelling is performed prior to planning submission.
3	Thermal zoning and controls	1	1	Thermal zoning and controls (1 credit) Targeted - Yes The above thermal modelling must be achieved to inform the temperature zoning and control strategy for the building and its users. The control strategy is to be based on appropriate zoning and occupant control based on discussion with the end-user and system interaction. The strategy for proposed heating or cooling systems is to demonstrate that it has addressed the following: - Zones within the building and how the building services could efficiently and appropriately heat and cool these areas. - The degree of occupant control, based on discussions with the end-user. - How the proposed systems interact with each other.

Credit	Available	Targeted	Potential	Comments
				- The need for an accessible building user-actuated manual override for any automatic systems. Actions: - Project team (M&E consultant) to confirm thermal control strategy will comply with the thermal comfort report produced for the Proposed Development.
Hea 05 - Acoustic performance				
1	Acoustic performance	3	3	Acoustic performance (3 credits) Targeted - Yes <u>Up to three credits</u> can be achieved where the building meets the appropriate acoustic performance standards and testing requirements relevant to the building type (Education) for sound insulation, indoor ambient noise levels and room acoustics defined below: <u>Sound insulation – Education building types:</u> - The sound insulation complies with the performance standards set out in Section 1 of Building Bulletin 93: 'Acoustic design of schools: performance standards, February 2015 (BB93)' relating to airborne sound insulation between spaces and impact sound insulation of floors. A programme of pre-completion acoustic testing is carried out by a compliant test body in accordance with the BB93 requirements and the Association of Noise Consultants (ANC) Good Practice Guide, Acoustic testing of Schools (Table 5.14 BREEAM acoustic criteria for education buildings) <u>Indoor ambient noise levels – Education building types:</u> - Achieve indoor ambient noise levels that comply with standards set out within Section 1 of BB93 for all room types. A programme of pre-

Credit	Available	Targeted	Potential	Comments
				completion acoustic testing is carried out by a compliant test body in accordance with the ANC Good Practice Guide, Acoustic testing of schools (Table 5.14 BREEAM acoustic criteria for education buildings) <u>Room acoustics – Education building types:</u> • <u>Teaching and study spaces</u> achieve the requirements relating to reverberation time for teaching and study spaces set out within Section 1 of BB93. A programme of pre-completion acoustic testing is carried out by a compliant test body in accordance with the requirements of BB93 and ANC Good Practice Guide, Acoustic testing of schools. • <u>Open plan teaching spaces</u> achieve the performance requirements relating to reverberation time and STI set out within Section 1 of BB93. A programme of pre-completion acoustic testing of reverberation time is carried out within open plan teaching spaces in accordance with BB93 and ANC. SQA shall undertake measurements of reverberation times to compare against the STI model. provide a report confirming that the surface finishes and distribution of sound absorption within the completed space is in line with the design intent implemented within the STI model. Where significant changes or differences are observed, the SQA shall re-model the space accordingly to demonstrate that the STI measurement is met by the completed spaces. • <u>Corridor and stairwells</u>, for those that give direct access to teaching and study spaces, achieve the performance requirements relating to sound absorption. Installation of a specification compliant with the BB93 criteria. <u>OR:</u> A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all functional areas in the building. The performance requirements should use the three acoustic principles outlined above, setting out the performance requirements and testing regime required for each.

Credit		Available	Targeted	Potential	Comments
					Actions: Project team to confirm whether a Suitably Qualified Acoustician (SQA) will be appointed to perform testing and produce an acoustic report covering the above sound insulation, indoor ambient noise levels and room acoustics requirements.
Hea 06 - Security					
1	Security of site and building	1	1	0	Security of site and building Targeted – Yes No later than RIBA Stage 2 A Suitably Qualified Security Specialist (SQSS/ALO) must conduct an evidence-based Security Needs Assessment (SNA) prior to RIBA Stage 2, which is to include: - A visual audit of the site and surroundings, identifying environmental cues and features pertinent to the security of the proposed development. - Formal consultation with relevant stakeholders, including the local ALO, CPDA and CTSA (as applicable), in order to obtain a summary of crime and disorder issues in the immediate vicinity of the proposed development. - Identification of risks specific to the proposed, likely or potential use of the buildings. - Identification of risks specific to the proposed, likely or potential user groups of the buildings. - Identification any detrimental effects the development may have on the existing community. The SQSS is to develop 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. The controls and recommendations should be incorporated into proposals and

Credit		Available	Targeted	Potential	Comments
					implemented in the as-built development. Any deviation from those controls and recommendations must be justified and agreed with the SQSS. The scope of the recommended security controls may consider the following: • Design and layout (e.g. crime prevention through environmental design). • Physical security (e.g. tested and certified security products). • Technological security (e.g. Tested and certified alarms, automatic access control systems, CCTV). It may be necessary to also consider building and security systems" ability to resist cyber-related attack. This will be dependent on the types of systems to be incorporated into the project. Actions: • Project team to confirm whether an SQSS will be appointed prior to RIBA Stage 2 to perform an SNA. • Measures will need to be incorporated into the design of the Proposed Development to comply with the recommendations within the SNA. • Secure By Design (SBD) can also be used to demonstrate compliance for this criterion IF the following are provided (ideally before planning): ○ Confirmation of SBD registration/consultation. ○ Statement/report from SBD officer confirming their recommendations for the site. ○ Email confirmation from the project team confirming confidence that the required measures will be implemented on site, and the SBD certification achieved. ○ If the consultation and report are performed post-planning, a statement is required from the SBD officer confirming that the later involvement will not impact the implementation of measures.
e1	Security of site and building	1	0	0	Security of site and building Targeted – No

Credit	Available	Targeted	Potential	Comments
				A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification. Actions: This credit is assumed to be not sought due to timely input and high costs.
Hea 07 - Safe and healthy surroundings				
1	Safe access	1	0	Safe and healthy surroundings (1 credit) Targeted - Yes Where external site areas form part of the assessed development the following apply: - Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to off-site cycle paths where applicable. - Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: - The site entrance to the building entrance - Car parks (where present) to the building entrance - The building to outdoor space - Connecting to off-site paths where applicable. - Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths. Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply: - Delivery areas are not accessed through general parking areas and do not cross or share the following: - pedestrian and cyclist paths - outside amenity areas accessible to building users and general public.

Credit	Available	Targeted	Potential	Comments
				- There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking. - Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting. <u>Dedicated and safe cycle lanes</u> Marked-out and clearly signed routes to accommodate building users arriving on and travelling through the assessed site on a bicycle. They must also have the following features: - Adequate external lighting in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas. - Appropriate sized, designed and constructed. The following publications offer guidance on how to demonstrate this: - Local transport Note 2/08 Cycle infrastructure design, Department of Transport, 2008. - Sustrans design guidance (www.sustrans.org.uk), specifically the Sustrans design manual handbook for cycle-friendly design. <u>Dedicated and safe footpaths</u> Marked-out and clearly signed routes to accommodate building users arriving on and travelling through the assessed site on foot. They must also have the following features: - Dedicated pedestrian crossing points are provided where needed to allow pedestrians to cross vehicle access routes - Appropriate traffic calming measures are in place to slow traffic at any crossing points - Developments with high numbers of visitors provide signposting to other local amenities and public transport nodes off site (where existing) - Adequate external lighting in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas.

Credit		Available	Targeted	Potential	Comments
					Actions: - Architect to confirm that access routes within the site will comply with the above. - This credit benefits from early attention as industrial developments frequently have difficulty achieving the above safe access requirements.
2	Outside space	1	1	0	Outside Space (1 credit) Targeted - Yes There is an outside space providing building users with an external amenity area. To be deemed applicable, this must meet the following: - Of an appropriate size for the number of building users. - Be an outdoor landscaped area. - Have appropriate seating areas and be non-smoking. - Be located to ensure it is accessible to all building users and avoids areas that will have disturbances from sources of noise (e.g. building services, car parks, busy roads, delivery areas etc.). Actions: - Architect to confirm that an outside space in compliance with the above criteria will be provided within the Proposed Development.
		18	15	3	Standard Health & Wellbeing Credit Total
		4	0	0	Exemplary Health & Wellbeing Credit Total
		18.04	11.70	2.34	% Health & Wellbeing Total (Standard + Exemplary)

Credit		Available	Targeted	Potential	Comments
Energy					
Ene 01 - Reduction of energy use and carbon emissions					
1	Energy performance	9	8	0	Energy Performance (9 credits) At least <u>FOUR</u> credits are required to achieve an 'Excellent' rating (an EPC_{NC} of at least 0.4) Targeted - Yes - 4 credits are currently targeted as a minimum until confirmed through as designed SBEM modelling – with 2 credits as potential, based off scores from similar schemes. Energy modelling must be undertaken to calculate an Energy Performance Ratio for New Construction (EPR NC). The EPR NC achieved is compared with the benchmarks in Table 6.1 of the BREEAM NC V6.1 manual and awarded the corresponding number of BREEAM credits. Actions: Energy modelling is to be undertaken and an SBEM or BRUKL provided to confirm credits. <i>(SRE have been appointed to provide this service).</i>
2	Prediction of operational energy consumption	4	0	4	Prediction of operational energy consumption (4 credits) Targeted - Yes The occupancy and energy use for unregulated energy loads and management practices are to be estimated. Detailed energy modelling is to be undertaken to predict the building energy consumption, as well as sensitivity analysis to determine the factors that can significantly impact building energy consumption. This will involve scenario modelling to inform improvements to the design of the building and to the operational, maintenance and handover strategies. An energy target is to be set for the building based on the results of this modelling. At the post-construction stage, this scenario modelling will be repeated to reflect the post-construction building specification and, if necessary, adjust the target.

	Credit	Available	Targeted	Potential	Comments
					A workshop is to be held with the project team, client and prospective occupier during Concept Design to discuss the results of the modelling and analysis and the proposed building design and development, to devise scenarios to explore how high-impact factors might influence the building energy consumption and to identify opportunities for the implementation of passive design measures. Actions: • Energy modelling is to be undertaken and an SBEM or BRUKL provided to confirm credits. • Energy workshop to be held during Concept Design between the Project Team, Client and prospective occupier. <i>(SRE can offer this service for an additional fee, if required).</i>
e1	Beyond zero net regulated carbon - Exemplary level criteria	3	0	0	Beyond zero net regulated carbon (3 credits) Targeted - No Up to 2 credits can be achieved if : • The building achieves an EPR NC 0.9 and zero net regulated CO₂-eq emissions. • Energy generation from on-site and near-site LZC sources is sufficient to offset carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use. The exemplary credits will be awarded based on the percentage of additional emissions from unregulated energy that are offset by LZC sources. 3 credits achieved if: The building is deemed carbon negative where > 100% (see Table 6.2) of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources. Actions:

Credit		Available	Targeted	Potential	Comments
					Credit not sought due to high benchmarks.
e2	Post-occupancy evaluation of operational energy consumption - Exemplary level criteria	2	0	0	Post-occupancy evaluation of operational energy consumption (2 credits) Targeted - No Pre-requisite: Achieve 'Four credits - Prediction of operational energy consumption'. Achieve maximum available credits in Ene 02 Energy monitoring . In addition, preschools, primary schools, law courts, prisons and multi-residential buildings must meet the requirements of the second credit for sub-metering of high energy load and tenancy areas. The client commits funds to pay for the POE. The energy model is saved so that it can be rerun post-occupancy. This can be achieved by either: - Submitting the model to BRE OR; - Reporting the building owner, or named third party, who has access to the model and can grant permission to use or share it. Actions: - Credit not sought due to high benchmarks.
Ene 02 - Energy monitoring					
1	Sub-metering of end use categories	1	1	0	Prerequisite - Sub-metering of types is installed (1 credit) Targeted - Yes Mandatory - This credit is required for a 'Very Good' a rating and above to be achieved Install energy metering systems so that at least 90% of the estimated annual

Credit		Available	Targeted	Potential	Comments
					energy consumption of each fuel is assigned to the end-use categories. Meter the energy consumption in buildings according to the total useful floor area. If the area is greater than 1,000m², by end-use category with an appropriate energy monitoring and management system. Additionally, as per the Building Regulations requirements, buildings with a total floor area greater than 1,000m² are also required to have automatic meter reading and data collection facilities. If the area is less than 1,000m², use either an energy monitoring and management system or separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system. Building users can identify the energy-consuming end uses, for example through labelling or data outputs. Actions: MEP to confirm that energy metering systems will be specified and installed in line with the above requirements.
Ene 03 - External Lighting					
1	External lighting	1	1	0	External Lighting (1 credit) Targeted - Yes To achieve 1 credit, the Proposed Development must meet either of the following: External light fittings within the construction zone have: - an average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt - automatic control to prevent operation during daylight hours

Credit	Available	Targeted	Potential	Comments	
				- presence detection in areas of intermittent pedestrian traffic. The above-mentioned does not apply to non-maintained lighting which only activates in an emergency. Actions: - MEP to confirm that external lighting will be specified in line with the above requirements.	
Ene 04 - Low carbon design					
1	Passive design	2	1	1	Passive Design (2 credits) Targeted - Yes (1 credit, 1 potential) Complete by end of RIBA stage 2 One credit - Passive design analysis (Targeted) The first credit within Hea 04 (thermal modelling) must be achieved. The project team must undertake an analysis of the proposed building design and development during Concept Design to identify opportunities for the implementation of passive design measures. These will reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings. Reductions in total energy demand and CO2e emissions resulting from the passive design measures must also be quantified. One credit - Free cooling (Assumed unattainable) If ‘small IT rooms’ are designed to avoid the use of ‘active cooling’ measures, it is possible to achieve this credit. If active cooling is used to treat these spaces, it would not be possible to achieve the free cooling credit. A free cooling analysis must be included within the passive design analysis. This must identify opportunities for the implementation of free cooling measures.

Credit	Available	Targeted	Potential	Comments
				Free cooling - The ability of the building to provide cooling to the internal occupied areas without the need to rely on energy consuming mechanical cooling. Free cooling is an enhanced passive design method that requires engineering design and modelling to demonstrate its effectiveness. The building must be naturally ventilated or use any combination of the free cooling strategies listed below: • Night time cooling (which could include the use of a high exposed thermal mass) • Ground coupled air cooling • Displacement ventilation (not linked to any active cooling system) • Ground water cooling • Surface water cooling • Evaporative cooling, direct or indirect • Desiccant dehumidification and evaporative cooling, using waste heat • Absorption cooling, using waste heat. Actions: • Passive design analysis needs to be performed and the report provided by the end of RIBA Stage 2 if this credit is to be targeted. <i>(SRE have been appointed to provide this service).</i> • Thermal modelling is also required (see Hea 04) prior to planning submission if this credit is targeted. • Free cooling is to be included within the passive design analysis to confirm the 2nd credit. Project team to confirm whether there are any opportunities to implement natural ventilation or free cooling measures, and whether this is worth including within the passive design analysis. This only applies to IT classrooms (if present).

Credit		Available	Targeted	Potential	Comments
					The free cooling credit has been marked potential until confirmation from the project team. <i>(SRE can offer this service for an additional fee, if required).</i>
2	Low and zero carbon technologies	1	1	0	LZC Feasibility Study (1 credit) Targeted - Yes Complete by the end of RIBA Stage 2 An energy specialist is to complete a feasibility study by the end of Concept Design. The most appropriate recognised local (on-site or near-site) low and zero carbon (LZC) energy sources and local LZC technologies for the building or development are to be established and specified based on the feasibility study and its recommendations. The reduced regulated carbon dioxide (CO₂e) emissions resulting from the feasibility study are to be quantified. Actions: An LZC feasibility study must be conducted and report produced prior to the end of the Concept Design Stage. <i>(SRE have been appointed to provide this service).</i>
Ene 06 - Energy efficient transportation systems					
1	Energy consumption	1	1	0	Energy consumption (1 credit) Targeted - Yes The anticipated transportation demand and usage patterns for the building must be analysed to determine the optimum number and size of lifts. The transport analysis can be in the form of a written statement justifying the lift selection for the following conditions:

Credit	Available	Targeted	Potential	Comments
				• where a single lift is provided in a low rise building for the purpose of providing disabled access only • or where a goods lift is selected based on the size of the goods it is intended to carry. The energy consumption must be calculated in accordance with BS EN ISO 25745 Part 2 or 3 for one of the following: • At least two options for each lift, OR • At least two options considering different system arrangements and control strategies. The use of regenerative drives is to be considered. A regenerative drive should only be considered where it produces an energy saving greater than the additional standby energy used to support the drives. Regenerative drives will typically be appropriate for lifts with high travel and high intensity use. Actions: • Lift manufacturer to provide lift report to confirm that the above criteria are met.
2	Energy efficient features	1	1	Energy efficient features (1 credit) Targeted – Yes Lifts The following three energy efficient features must be specified for each lift: • A standby condition for off-peak periods. • The lift car lighting and display lighting must provide an average luminous efficacy across all fittings in the car of > 70 luminaire lumens per circuit Watt.

Credit		Available	Targeted	Potential	Comments
					- Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. Regenerative drives should be specified where their use is demonstrated to save energy. Actions: - Lift manufacturer to provide lift report to confirm that the above criteria are met.
Ene 08 - Energy efficient equipment					
1	Energy efficient equipment	2	0	2	Energy efficient equipment Targeted – No (2 Potential) Identify the building's unregulated energy consuming loads. Estimate their contribution to the total annual unregulated energy consumption of the building. Energy uses making up at least 90% of the estimated total annual energy consumption should typically be included. Everything else, contributing to less than 10% should not be considered. Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building by adhering to the criteria outlined in table 6.7. The following contributors to unregulated energy have been assumed: <u>IT-intensive operating areas</u>: Specify a natural ventilation and cooling strategy as standard. Use forced ventilation only when the internal temperature exceeds 20°C and active cooling only when the internal temperature exceeds 22°C. Specify a mechanism to achieve automatic power-down of equipment when not in use, including overnight. <u>Domestic-scale appliances (individual and communal facilities)</u>: Any white goods, available to purchase from the developer, must achieve the following ratings (or better) under the EU Energy Efficiency Labelling Scheme - Fridges, fridge-freezers, freezers – E - Dishwashers – D

Credit		Available	Targeted	Potential	Comments
					Actions: Await confirmation from the project team to determine the significant contributors to unregulated energy load. Credits are marked as potential.
		22	14	7	Standard Energy Credit Total
		5	0	0	Exemplary Energy Credit Total
		21.06	10.22	5.11	% Energy Total (Standard + Exemplary)
Transport					
Tra 01 - Transport assessment and travel plan					
1	Travel plan	2	2	0	Pre-requisite - Travel plan must be undertaken to achieve any credits within this section (2 credits) Targeted - Yes By the end of RIBA stage 2 At no later than Concept Design stage, undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form. The Transport Assessment/Statement must assess the following as a minimum: - If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. - Predicted travel patterns and transport impact of future building or site users. - Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. - Reporting of the number and type of existing accessible amenities within 500m of the site.

Credit		Available	Targeted	Potential	Comments
					- Disabled access accounting for varying levels and types of disability, including visual impairment. - Calculation of the existing public transport Accessibility Index (AI) - Current facilities for cyclists. Following a transport assessment, develop a site-specific travel plan that provides a long term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation. If the occupier is known, involve them in the development of the travel plan. Demonstrate that the travel plan will be implemented and supported by the building's management in operation. Actions: - Travel plan draft and transport assessment required. To be provided by the Project Team by the end of RIBA Stage 2.
Tra 02 - Sustainable transport measures					
Pre-req	Pre-requisite		✓	✗	Pre-requisite - Tra 01 has been achieved.
1	Transport options implementation	10	7	3	Transport options implementation (10 credits) Targeted – Yes (7 credits, 3 potential) Credits are awarded based upon the site's Accessibility Index (AI) and the implementation of any of the following: The development type (Primary School) is classified as <u>building group 2</u>. It is assumed that the site's AI will be <25 points based on the rural/sub-urban environment.

Credit	Available	Targeted	Potential	Comments
				- Existing AI ≥ 8 - PTAL tool to be confirmed in Transport Assessment. (assumed) - Demonstrate an increase over the existing AI (calculated in Tra01) through either negotiating with transit companies for an increase in frequency OR provision of a diverted bus route/enhanced bus stop OR provide a dedicated bus service. - Provide a public transport information system in a publicly accessible area to allow building users access to up-to-date information on the available public transport and transport infrastructure. This may include signposting to public transport, cycling, walking infrastructure or local amenities. - Provide electric recharging stations for a minimum of 3kW for at least 10% of the total car parking capacity for the development. (assumed) - Set up a car-sharing group or facility to facilitate and encourage building users to car share, raise awareness of the sharing scheme with marketing and communication materials, provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development and locate priority parking spaces nearest the development entrance used by the sharing scheme participants. (potential) - During preparation of the brief, the design team consults with the local authority (LA) on the state of the local cycling network and public accessible pedestrian routes, to focus on whichever the LA deems most relevant to the project, and how to improve it and agree and implement one. This must be additional to the existing local plans, and have a significant impact on the local cycling network or pedestrian routes open to the public (potential) - Install compliant cycle storage spaces to meet the minimum levels set out in the BREEAM NC V6.1 technical manual (Table 7.5). For Educational – Primary School – developments, the requirements are: 5 cycle spaces per form/class in a year group. Minimum provision: If the number of forms or classes varies between year groups, base the calculation on the greatest number of classes or forms. (assumed)

Credit	Available	Targeted	Potential	Comments
				8. Provide at least two compliant cyclists' facilities for the building users for the scope of each compliant facility: (assumed) ○ Showers - One shower for every 10 cycle storage spaces, subject to a minimum provision of one shower. Both male and female users must be catered for. ○ Changing facilities - Does not include toilet or shower cubicles. To be appropriately sized and account for privacy to allow cyclists of either gender to change in private. Must include adequate space and facilities to hang or store clothing and equipment while changing or showering, e.g. bench seat or hooks. ○ Lockers - At least equal to the number of cycle spaces provided, in or adjacent to the changing rooms (where provided). ○ Drying spaces. - Should be provided with suitable finishes, adequate heating and ventilation and the facility to hang wet clothes with sufficient air movement around them to dry effectively. 9. At least three existing accessible amenities are present within 500m of the site (table 7.6): (potential) food outlet; cash point; open space; leisure facility; postal facility; community facility; over the counter services associated with a pharmacy. 10. Ensure a minimum of one new accessible amenity is provided OR ensure more than one new accessible amenity is provided. E.g. community facility and access to open space (assumed) It has been assumed that the following measures are installed to target 7 credits in this section: • Existing AI >8 (1)

Credit	Available	Targeted	Potential	Comments
				• Provide electric recharging stations for a minimum of 3kW for at least 10% of the total car parking capacity for the development. (4) • Set up a car-sharing group or facility to facilitate and encourage building users to car share, raise awareness of the sharing scheme with marketing and communication materials, provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development and locate priority parking spaces nearest the development entrance used by the sharing scheme participants. (5) (Potential) • Enhancement of local cycling network and public accessible pedestrian routes (6) (Potential) • Planned BREEAM-compliant cycle storage provision of 1 space per 10 staff. (7) • Provide at least two compliant cyclists' facilities for the building users out of showers, changing facilities, lockers or drying space. (8) • At least three existing accessible amenities are present within 500m of the site. (9) (Potential) • One new accessible amenity will be provided (10) • More than one new accessible amenity is provided (10) (Potential) Actions: • Project Team to confirm the measures that are to be implemented: • Architect to confirm the installation of BREEAM-compliant cycle storage. • Architect to confirm the BREEAM-compliant cycle facilities that will be installed for both staff and occupants/visitors. • Architect/MEP to confirm the provision of electric recharging stations - 3kW for at least 10% of the car parking. • Architect to confirm the provision of a car-sharing group or facility and provide priority spaces for car sharers for at least 5% of the total car parking capacity. • BREEAM-compliant Transport assessment/statement confirming the site's AI is required.

Credit		Available	Targeted	Potential	Comments
		12	8	4	Standard Transport Credit Total
		0	0	0	Exemplary Transport Credit Total
		9.96	6.64	3.32	% Transport Total (Standard + Exemplary)
Water					
Wat 01 - Water consumption					
1	Water consumption	5	5	0	Water consumption (5 credits) One credit is required for 'Excellent' rating to be achieved Targeted - Yes (5 credits) This issue assesses the efficiency of the domestic water-consuming components specified for the development. Level 5 'component performance has been targeted (5 credits) for an improvement of 55% above baseline (Building Regulations Part G) building water consumption. A typical specification should be as follows (as per Table 8.3 of the BREEAM NC V6.1 manual): • WC – 3 litres effective flush volume; • Urinals – N/A • Showers – 3.5 litres/min • Wash hand basin taps - 3 litres per min; • Kitchenette Taps - 5 litres per min • Dishwashers (domestic sized) - 10 litres/cycle The Wat 01 calculator should be completed using the anticipated domestic water component schedule to calculate the development's anticipated water demand and number of credits achieved. Actions: • Project team (MEP) to confirm that the performance level 5 standards above can be met to achieve 5 credits. Where the performance levels are unattainable, the MEP is to inform SRE.

	Credit	Available	Targeted	Potential	Comments
e1	Water consumption	1	0	0	Exemplary level – water consumption Targeted – No The water consumption (litres/person/day) for the assessed building achieves the 65% improvement described as exemplary performance in Table 8.1
Wat 02 - Water monitoring					
Pre-req	Prerequisite (Good to Outstanding)		✓	✗	Prerequisite (Good to Outstanding) Minimum requirement for 'Very Good' rating and above 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.
1	Water monitoring	1	1	0	Water Monitoring (1 credit) Targeted - Yes Mandatory - A water meter is fitted to the mains supply on each building. For water-consuming plant or building areas consuming 10% or more of the buildings total water demand it is required that easily accessible sub-metres are fitted or water monitoring equipment is installed. For each meter (main and sub), a pulsed or other open protocol communication output needs to be installed and connected 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, credits will be awarded provided that the system used enables connection when the BMS becomes operational. Actions: MEP to confirm that water meters will be specified in line with the above requirements.
Wat 03 - Water leak detection					
1	Leak detection system	1	1	0	Leak detection system (1 credit) Targeted - Yes

Credit		Available	Targeted	Potential	Comments
					A BREEAM Compliant leak detection system is to be installed on the mains water supply to each building to detect major leaks on the water supply within the buildings and between the buildings and water supply. The system must be: • A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks; • 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; • 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; • Programmable to suit the owner's or occupier's water consumption criteria; and • Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers. Actions: • MEP to confirm that a leak detection system will be installed in line with the above requirements.
2	Flow control devices	1	1	0	Flow control devices (1 credit) Targeted - Yes Install flow control devices that regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework. Actions:

Credit		Available	Targeted	Potential	Comments
					MEP to confirm whether flow control devices will be specified for each WC area, in line with the above.
		8	8	0	Standard Water Credit Total
		1	0	0	Exemplary Water Credit Total
		8.04	7.04	0	% Water Total (Standard + Exemplary)
Materials					
Mat 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)					
1	Superstructure	6	6	0	Superstructure Life Cycle Assessment (LCA) Targeted – Yes (6 credits) To be completed by the end of RIBA stage 2 and again during RIBA stage 4 Carry out an LCA of 2-4 significantly different superstructure options, of which the options selected must not hinder the functional requirements previously specified by the client. This must be undertaken within an IMPACT Compliant LCA tool. The following must also be recorded in an 'Option Appraisal Summary Document': - Differences between the design options; - Reasons for selecting the chosen options; and - Reasons for not selecting the discarded options. Reasons must be given for selecting the chosen design option, with the results submitted to BRE prior to the end of the RIBA Stage 2 AND prior to planning submission. This MUST be achieved in order to gain any credits within Mat 01. During RIBA Stage 4, carry out an LCA of 2-3 significantly different superstructure options, based on that selected during Stage 2. Results must explore the same issues as those presented at RIBA Stage 2 with the 'Option Appraisal Summary Document' updated and submitted to BRE prior to the end of Stage 4.

	Credit	Available	Targeted	Potential	Comments
					Actions: - LCA for the superstructure is to be completed by the end of stage 2 and prior to planning submission. - The LCA assessment is to be repeated and the option appraisal summary document updated during and prior to the end of Stage 4. - Credits are confirmed once the calculations are performed and results uploaded to BRE. <i>(SRE have been appointed to provide this service – for stage 2 only)</i> <i>(SRE can offer this service for an additional fee, if required – for stage 4)</i>
2	Substructure and hard landscaping options appraisal during Concept Design (all building types)	1	1	0	Substructure and hard landscaping Life Cycle Assessment (LCA) (1 credit) Targeted - Yes Complete by the end of RIBA Stage 2 During Concept Design identify opportunities for reducing environmental impacts as follows: Carry out an LCA of 6 significantly different substructure and hard landscaping options (min 2 substructure & 2 hard landscaping). Results must explore the same issues as those presented for the Superstructure, with the 'Option Appraisal Summary Document' updated and submitted to BRE at the end of RIBA Stage 2. Actions: - LCA for the superstructure is to be completed by the end of stage 2 and prior to planning submission. - The LCA assessment is to be repeated and the option appraisal summary document updated during and prior to the end of Stage 4.

Credit		Available	Targeted	Potential	Comments
					Credits are confirmed once the calculations are performed and results uploaded to BRE. <i>(SRE can offer this service for an additional fee, if required).</i>
e1	Core building services options appraisal during Concept Design (all building types)	1	0	0	Core building services options appraisal (1 exemplary credit) Targeted - No Complete by the end of RIBA Stage 2 During Concept Design identify opportunities for reducing environmental impacts as follows: Undertake LCA options appraisal of at least 3 significantly different core building services using an IMPACT Compliant LCA tool and submit to BRE prior to the end of Stage 2. Actions: - LCA for the superstructure is to be completed by the end of stage 2 and prior to planning submission. - The LCA assessment is to be repeated and the option appraisal summary document updated during and prior to the end of Stage 4. - Credits are confirmed once the calculations are performed and results uploaded to BRE. <i>(SRE can offer this service for an additional fee, if required).</i>
e2	LCA and LCC alignment (all building types)	1	0	0	LCC and LCA alignment (1 exemplary credit) Targeted - No Complete by RIBA Stage 2 Achieve requirements for Mat 01 credit 1. Where the Man 02 LCC (elemental and component level) credits are achieved, the LCA options appraisals align and integrate findings within the overall project.

Credit		Available	Targeted	Potential	Comments
					Actions: Alignment study for Life Cycle Costing and Life Cycle Assessment to be performed. (SRE can offer this service for an additional fee, if required).
e3	Third party verification (all building types) - Exemplary level criteria	1	0	0	Third party verification (1 exemplary credit) Targeted – No Completed by RIBA Stage 2 <u>Prerequisite:</u> Must achieve LCA options appraisal for concept design and at technical design for superstructure, substructure and hard landscaping. A suitably qualified third party carries out the building LCA work OR; verifies the building LCA work (if by others), and produces a report describing how they have checked the building LCA work accurately represent the designs under consideration during Concept Design and Technical Design with reference to the requirements of the LCA options appraisal credits as per described above. For each LCA option, itemise in the report the checks made by the suitably qualified third party including, as a minimum, the quality requirements shown in Table 9.4 in the BREEAM UK NC V6.1 Technical Manual. Must provide 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. Actions: Credit not assumed.
Mat 02 - Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)					
1	Specification of products with a	1	1	0	Environmental impacts from construction products (1 credit) Targeted - Yes

Credit		Available	Targeted	Potential	Comments
	recognised environmental product declaration (EPD)				To achieve this credit, the materials listed in Mat 01 are assessed depending upon their EPDs (Environmental Product Declarations). Based upon the type of EPD, a score is given with a single credit awarded if 20 points are scored. Actions: Design team to provide copies of EPDs certificates for the proposed building materials.
Mat 03 - Responsible sourcing of construction products					
Pre-req	Prerequisite		✓	✗	Mandatory - This is a minimum requirement for any BREEAM rating 100% of timber and timber-based products used on the project are 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy (TPP). Actions: Project Team to ensure that the appointed Main Contractor commits to sourcing all Timber products on site in accordance with the BREEAM definition of 'Legally harvested and traded timber'.
1	Enabling sustainable procurement	1	1	0	Sustainable Procurement Plan (1 credit) Targeted - Yes To be completed by the end of RIBA Stage 1 A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must: - Be in place before Concept Design. - 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. - Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. Include details of procedures in place to check

	Credit	Available	Targeted	Potential	Comments
					and verify the effective implementation of the sustainable procurement plan. Actions: Client/Design Team to confirm whether Sustainable Procurement Plan was provided before the end of RIBA Stage 1. <i>(SRE have been appointed to provide this service).</i>
2	Measuring responsible sourcing	3	2	1	Measuring Responsible sourcing (3 credits) Targeted - Yes (2 targeted, 1 potential) Credits for this issue are awarded based on the proportion of responsible sourcing of materials (RSM) points achieved: <u>1 credit:</u> A target score of 10% of the available RSM points is achieved for the superstructure. <u>2 credits (Targeted):</u> The above is achieved for the superstructure, AND 20% of available RSM points are achieved for internal finishes and substructure and hard landscaping. <u>3 credits (Potential):</u> The above is achieved for the superstructure, AND 30% of available RSM points are achieved for internal finishes and substructure and hard landscaping. Calculation of the above requires completion of the Mat 03 Calculator tool by the BREEAM assessor, based on materials information (including materials schedule, drawings and responsible sourcing certificates) provided by the Project Team (specifically the Main Contractor or Architect). Actions:

Credit		Available	Targeted	Potential	Comments
					Project Team to ensure the appointed Main Contractor commits to sourcing all superstructure, internal finishes, substructure and hard landscaping materials to be used on site from suppliers with responsible sourcing certificates, where possible.
e1	Measuring responsible sourcing	1	0	0	Measuring responsible sourcing - exemplary criteria (1 exemplary credit) Targeted - No The criteria for 3 RSM credits are achieved, as well as: - Core building services achieve $\geq 50\%$ of available RSM points. Actions: - Credit not sought at present. If targeted, the Project Team are to ensure that the appointed Main Contractor/MEP sources materials for core building services from suppliers with responsible sourcing certificates, where possible.
Mat 05 - Designing for durability and resilience					
1	Protecting vulnerable parts of the building from damage/material degradation	1	1	0	Designing for durability and resilience (1 credit) Targeted - Yes <u>Protecting vulnerable parts of the building from damage</u> Protection measures are to be incorporated into the building's design and construction to reduce damage to the buildings fabric or materials in case of accidental or malicious damage occurring. These measures must provide protection against: - Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.). - Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas.

Credit		Available	Targeted	Potential	Comments
					- External building fabric damage by a vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building facade and where delivery areas or routes are within 2 metres of the facade, i.e. specifying bollards or protection rails. - Potential malicious damage to building materials and finishes, in public and common areas where appropriate. <u>Protecting exposed parts of the building from material degradation</u> - Key exposed building elements that may be subject to environmental degradation to be identified, with either a detailed assessment of the element's resilience or an appropriate durability standard (in line with BS 7543:2015) being installed. - Convenient roof access should also be included within the plans in addition to a fabric design that prevents water damage, ingress and detrimental ponding. - Table 9.14 within the BREEAM New Construction V6.1 manual contains a list of relevant industry durability and quality standards that can be used to achieve compliance. Actions: - Architect to confirm that protection measures and durability or quality standards to be specified and followed for vulnerable and exposed parts of the building, in line with the above criteria.
Mat 06 - Material efficiency					
1	Material efficiency	1	1	0	Material efficiency (1 credit) Targeted – Yes Must incorporate input from RIBA Stage 1 through to 6 At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials through the

Credit		Available	Targeted	Potential	Comments
					compilation of a Material Efficiency report. This should be carried out at each of the RIBA Stages, 1 (Preparation & Brief), 2 (Concept Design), 3 (Developed Design), 4 (Technical Design) & 5 (Construction). Additionally, at RIBA Stages 3 (Developed Design), 4 (Technical Design) and 5 (Construction), the implementation of measures for maximising material efficiency should be developed and implemented, and noted within the Material Efficiency report. The targets and actual material efficiencies achieved should be reported. Table 9.15 within the BREEAM New Construction V6.1 manual contains the material efficiency strategy that should be followed to produce the Material Efficiency report. Actions: - Architect to provide the Material Efficiency report for RIBA stages 1, 2 and 3 and 4. SRE have provided templates and guidance for this report. - Main Contractor to supply the report for RIBA Stage 5 (Construction).
		14	13	1	Standard Materials Credit Total
		4	0	0	Exemplary Materials Credit Total
		18.98	13.91	1.07	% Materials Total (Standard + Exemplary)
Waste					
Wst 01 - Construction waste management					
1	Pre-demolition audit	1	0	0	Pre-demolition audit (one credit) Targeted - No A pre-demolition/strip-out audit of any existing buildings, structures or hard

Credit	Available	Targeted	Potential	Comments
				surfaces should be completed by RIBA Stage 2 in order to identify opportunities to reuse and recycle existing materials. The audit must cover: • Identification and quantification of the key materials where present on the project • Potential applications and any related issues for the reuse and recycling of the key materials in accordance with the waste hierarchy. • Opportunities for reuse and recycling within the same development • Identification of local reprocessors or recyclers for recycling of materials • Identification of overall recycling targets where appropriate • Identification of reuse targets where appropriate • Identification of overall landfill diversion rate for all key materials. This audit must be referenced in the resource management plan (RMP) for the site. Actions: • This credit is not assumed as there may not be any demolition works on site. • The site of the proposed development is brownfield, and demolition will be occurring. The Main Contractor is therefore required to provide a pre-demolition audit prior to the end of RIBA Stage 2 / before any demolition occurs on site. • The demolition contractor appointed will need to have a valid EMS certificate.
2	Construction resource efficiency	3	2	Construction resource efficiency Targeted - Yes (2 credits targeted, 1 credit potential) A compliant Resource Management Plan (RMP) must be produced for the project, covering:

Credit	Available	Targeted	Potential	Comments
				• Non-hazardous waste materials (from on-site construction and dedicated off-site manufacture or fabrication, including demolition and excavation waste. • Accurate data records on waste arisings and waste management routes. A nominated person should be identified to take responsibility for the plan and collection of data, confirming that the following benchmarks have been met for non-hazardous construction waste, excluding demolition and excavation waste: • One credit awarded where the amount of waste generated per 100m² is < or equal to 13.3 (m³) or 11.1 (tonnes) • Two credits awarded where the amount of waste generated per 100m² is < or equal to 7.5 (m³) or 6.5 (tonnes) - Targeted • Three credits awarded where the amount of waste generated per 100m² is < or equal to 3.4 (m³) or 3.2 (tonnes) - Potential • Exemplary level awarded where the amount of waste generated per 100m² is < or equal to 1.6 (m³) or 1.9 (tonnes) Potential tool for compiling an RMP and monitoring waste: SMARTWaste® is a web-based membership tool allowing users to measure and monitor construction site impacts. The tool can be used for: • Preparing, implementing and reviewing RMPs • Online measuring and reporting on ○ Waste (aligned to defined waste groups) ○ Site energy, fuel and water use ○ CO2 production from energy usage ○ Procurement of certified or sustainable timber ○ Transportation impacts from materials deliveries, waste removal and staff travel to and from the site ○ Pre-demolition versus post-demolition waste data

Credit		Available	Targeted	Potential	Comments												
					- Industry waste benchmarks. Actions: - Project Team to ensure the appointed Main Contractor is aware of their responsibility to appoint an individual responsible for monitoring and recording demolition and excavation waste, and for the production of an RMP in line with the requirements above.												
3	Diversion of resources from landfill	1	1	0	Diversion of resources from landfill (1 credit) Targeted - Yes - Where applicable, the following diversion from landfill benchmarks should be met for non-hazardous construction waste and demolition and excavation waste generated. - Waste materials should be separated into key waste groups either on-site or through a licensed contractor for recovery. <table><tr><td>Type of Waste</td><td>Volume</td><td>Tonnage</td></tr><tr><td>- Non-demolition</td><td>70%</td><td>80%</td></tr><tr><td>- Demolition</td><td>80%</td><td>90%</td></tr><tr><td>- Excavation</td><td>N/A</td><td>N/A</td></tr></table> Actions: - Project Team to ensure that the appointed Main Contractor commits to monitoring and meeting the benchmarks for non-hazardous construction waste and demolition and excavation waste noted above.	Type of Waste	Volume	Tonnage	- Non-demolition	70%	80%	- Demolition	80%	90%	- Excavation	N/A	N/A
Type of Waste	Volume	Tonnage															
- Non-demolition	70%	80%															
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- Excavation	N/A	N/A															
e1	Construction resource efficiency/Diversion of resources from landfill	1	0	0	Construction resource efficiency & Diversion of resources from landfill (1 exemplary credit) Targeted - No To achieve an exemplary performance credit:												

Credit	Available	Targeted	Potential	Comments												
				Non-hazardous construction waste generated, excluding demolition and excavation waste, must be less than or equal to the exemplary level resource efficiency benchmarks: - Exemplary level awarded where the amount of waste generated per 100m2 is < or equal to 1.6 (m3) or 1.9 (tonnes). - The percentage of non-hazardous construction, demolition and excavation waste (if relevant) diverted from landfill meets or exceeds the exemplary level percentage benchmarks: <table><tr><th>Type of Waste</th><th>Volume</th><th>Tonnage</th></tr><tr><td>- Non-demolition</td><td>85%</td><td>90%</td></tr><tr><td>- Demolition</td><td>85%</td><td>95%</td></tr><tr><td>- Excavation</td><td>95%</td><td>95%</td></tr></table> All key waste groups in Table 10.3 of the BREEAM NC V6.1 manual for diversion from landfill must be covered in the RMP. Waste data obtained from licensed external waste contractors must be reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS 402:2013 compliant company. Actions: - Credit not sought, at present, due to high benchmarks. The appointed Main Contractor must commit to achieving the above criteria for this credit to be achieved.	Type of Waste	Volume	Tonnage	- Non-demolition	85%	90%	- Demolition	85%	95%	- Excavation	95%	95%
Type of Waste	Volume	Tonnage														
- Non-demolition	85%	90%														
- Demolition	85%	95%														
- Excavation	95%	95%														
Wst 02 - Use of recycled and sustainably sourced aggregates																

	Credit	Available	Targeted	Potential	Comments
Pre-req	Prerequisite		✗	✗	Pre-requisite Targeted - No The reuse of site-won material on site should be encouraged and a pre-demolition audit should be carried out in accordance with Wst 01 (if demolition occurs on-site).
1	Project Sustainable Aggregate points	1	0	0	Project Sustainable Aggregate Points (1 credit) Targeted - No All aggregate uses, types of quantities and sources should be identified. The distance (km) travelled by all aggregates by transport type should be calculated and all this information should be entered into the Wst 02 calculator. 3.5-6 points will equate to one credit. More than 6 points will achieve an exemplary credit. Actions: Credit has not been targeted due to high benchmarks.
e1	Project Sustainable Aggregate points	1	0	0	Project Sustainable Aggregate points Targeted - No The Project Sustainable Aggregate Points score meets or exceeds the exemplary level performance benchmark of > 6. Actions: Credit has not been targeted due to high benchmarks.
Wst 03 - Operational waste					
1	Operational waste	1	1	0	Operational Waste (1 credit) Targeted – Yes Mandatory – This credit is required for an ‘Excellent’ rating and above. Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space should be:

Credit	Available	Targeted	Potential	Comments
				- Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams. - Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors. - Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates. - As a NIFA of <5000m² is currently assumed (2927m²), at least 2m² per 1000m² of net floor area is required for the operational waste storage space. At least 6 m² is required. Recyclable waste should be provided for the proposed development. This should be accounted for, in addition to the waste storage space for general operational waste. <u>For consistent and large amounts of operational waste generated, the following should be provided:</u> - Static waste compactors or balers; situated in a service area or dedicated waste management space. - 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. - 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. Actions: - Architect to confirm the NIFA for the proposed development, and that appropriate waste storage area for the building will be provided.
Wst 05 - Adaptation to climate change				

Credit	Available	Targeted	Potential	Comments
1	Resilience of structure, fabric, building services and renewables installation	1	1	Resilience of Structure (1 credit) Targeted - Yes Must incorporate input from RIBA stage 2 • A <u>climate change adaptation strategy appraisal</u> must be conducted using 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. • As a guide, the adaptation plan should consider the following impacts of climate change and extreme weather events and describe how the design mitigates against them, where appropriate: 1. Flooding 2. Storms (including high winds) 3. Cold events 4. Heat waves (including temperature increases) 5. Drought (including reduced summer rainfall) 6. Milder winters 7. Wetter winters (including increased moisture and driving rain) 8. Warmer summers and increased solar radiation 9. Temperature variation 10. Precipitation, e.g. rain and snow 11. Subsidence or ground movement. • The assessment must cover the installation of building services and renewable systems, as well as structural and fabric resilience aspects and include hazard identification, hazard assessment, risk estimation, risk evaluation, risk management. • The risk presented by these hazards to the building and the likely impact of the hazards should be identified, taking into account the following aspects as a minimum: 1. Structural stability 2. Structural robustness 3. Weather proofing and detailing 4. Material durability 5. Health and safety of building occupants and others 6. Impacts on building contents and business continuity.

	Credit	Available	Targeted	Potential	Comments
					• <u>Recommendations or solutions</u> must be developed based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact. • An <u>update must be provided during Technical Design</u> demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost-effective. Omissions must be justified in writing by the assessor. Actions: • Architect to provide the adaption to climate change strategy report by the end of RIBA Stage 2, and provide an update during RIBA Stage 4.
e1	Responding to climate change	1	0	1	Responding to climate change (1 exemplary credit) Targeted - No (Potential) If this exemplary credit is sought, the Wst 05 credit must be achieved, as well as the following: • Hea 04 Thermal comfort - Criterion 6 • Ene 01 Reduction of energy use and carbon emissions - A minimum of <u>6 credits</u> (Currently targeted 4 credits for Ene 01 (EPR_{NC} 0.4), credit deemed unachievable until confirmation from Energy specialist) • Ene 04 Low carbon design - The Passive Design Analysis credit • Wat 01 Water consumption - A minimum of 3 credits • Mat 05 Designing for durability and resilience - Criteria 2-4 • Pol 03 Flood and surface water management - 1 credit for Flood Resilience, 2 credits for Surface Water Run-off Actions: • The aforementioned credits will be achieved to meet the requirement of this credit.

Credit		Available	Targeted	Potential	Comments
Wst 06 - Design for disassembly and adaptability					
1	Design for disassembly and functional adaptability - recommendations	1	1	0	Design for disassembly and functional adaptability (recommendations) (1 credit) Targeted - Yes Input required before the end of RIBA stage 2 - The Design Team must undertake a study to explore the ease of disassembly and the functional adaption potential of different design scenarios by the end of Concept Design. - The study must consider the following as a minimum: - Feasibility: The likelihood to contain multiple or alternative building uses, area functions and different tenancies over the expected life cycle, e.g. related to the structural design of the building. - Accessibility: Design aspects that facilitate the replacement of all major plant within the life of the building, e.g. panels in floors and walls that can be removed without affecting the structure, providing lifting beams and hoists. Accessibility also involves access to local services, such as - local power, data infrastructure etc. - Versatility: The degree of adaptability of the internal environment to accommodate changes in working practices. - Adaptability: The potential of the building ventilation strategy to adapt to future building occupant needs and climatic scenarios. - Convertibility: The degree of adaptability of the internal physical space and external shell to accommodate changes of in-use. - Expandability: The potential for the building to be extended, horizontally or vertically. 'Refurbishment potential': The potential for major refurbishment, including replacing the façade.

	Credit	Available	Targeted	Potential	Comments
					- Recommendations or solutions must be developed based on the study, during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation. Actions: - Architect to provide a disassembly and functional adaptability study prior to the end of RIBA Stage 2.
2	Disassembly and functional adaptability - implementation	1	1	0	Design for disassembly and functional adaptability (implementation) (1 credit) Targeted - Yes Input required from RIBA stage 2. Credits need to be provided by the end of RIBA stage 4. The first Wst 06 credit must be achieved. The Design Team must also (during <u>Technical Design</u>) provide an update on: - 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. - Changes to the recommendations and solutions during the development of Technical Design. - A building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants should also be produced. Functional adaptation implementation: The implementation must be specific to the building and scope of the project, but information should be made available to the assessor covering: - Options for multiple building uses and area functions based on design details, e.g. modularity. - Routes and methods for major plant replacement, e.g. networks and connections have flexibility and capacity for expansion.

Credit		Available	Targeted	Potential	Comments
					- Accessibility for local plant and service distribution routes, e.g. detailed information on building conduits and connections infrastructure. - The potential for the building to be extended, horizontally or vertically. Ease of disassembly: See the credit above for the contents that should be included within the Functional Adaptability study. Actions: - Architect to update the disassembly and functional adaptability study prior to the end of RIBA Stage 4.
		9	7	1	Standard Waste Credit Total
		3	0	1	Exemplary Waste Credit Total
		9.03	4.69	1.67	% Waste Total (Standard + Exemplary)
Land Use & Ecology					
LE 01 - Site selection					
1	Previously occupied land	1	0	0	Previously Occupied Land (1 credit) Targeted - No In order to achieve the credit, 75% of the Proposed Development's footprint must be on previously occupied land. It has been assumed that, due to the Proposed Developments construction being on previously occupied land, this credit will be achievable. Actions: - Credit assumed unachievable as the existing site appears to be land that is or has been occupied for agricultural uses. The credit is excluded from the assessment. - Architect to provide an annotated drawing showing the % of the developments footprint that is on previously developed land.

	Credit	Available	Targeted	Potential	Comments
2	Contaminated land	1	0	1	Contaminated Land (1 credit) Targeted - No (Potential) A contaminated land professional must undertake a site investigation, risk assessment and appraisal, which deems that land within the development footprint to be affected by contamination. This report should identify: • The degree of contamination • The contaminant sources or types • The options for remediating sources of contamination which present an unacceptable risk. The client or principal contractor must confirm that a remediation strategy will be implemented, in line with the report. Actions: • Project team to confirm whether the site is significantly contaminated, i.e., whether any remediation will be taking place on site. A remediation strategy will need to be provided if the site is significantly contaminated. • This credit is to remain potential until it is confirmed by the project team that remediation is required.
LE 02 - Ecological risks and opportunities					
Pre-req	Prerequisite - Statutory obligations		✓	✗	Prerequisite The client or contractor must confirm compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
1	Survey and evaluation/Determining ecological outcomes	2	2	0	Survey and Evaluation (1 credit) Targeted - Yes Typically complete during RIBA Stage 1 A Suitably Qualified Ecologist (SQE) must perform a survey and evaluation for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically RIBA Stage 1).

Credit	Available	Targeted	Potential	Comments
				The SQE's survey and evaluation must determine the site's ecological baseline including: • Current and potential ecological value and condition of the site and related areas within the Zone of Influence • Direct and indirect risks to current ecological value from the project • Capacity and feasibility for enhancement of the site's ecological value and, where relevant, areas within the Zone of Influence. The survey and evaluation approach used should be appropriate to the scope and scale of the project. The SQE should use robust professional judgement following established best practice including professional body guidelines (e.g. CIEEM) to consider any aspects listed below that they deem to be relevant: <u>Survey:</u> 1. Determining the Zone of Influence for the site including neighbouring land and habitats 2. Current flora, fauna (including permanent and transient species) and habitat characteristics (including but not limited to ecological features in or on built structures) 3. Current habitat extent, quality, connectivity and fragmentation 4. Recent and historic site conditions 5. Existing management and maintenance levels and arrangements 6. Existing ecological initiatives within the Zone of Influence 7. Identification of, and consultation with, relevant stakeholders impacted or affected by the site. 8. Local knowledge or sources of information. <u>Evaluation:</u> • Current value and condition of the site and the Zone of Influence in terms of: ○ Features including habitats, species, food sources and connectivity

Credit	Available	Targeted	Potential	Comments
				○ Broader biodiversity and ecosystem services benefits or opportunities • Direct and indirect risks to current ecological value: ○ Sensitive areas and features on or near the site ○ Direct risks including those from human activity (e.g. construction work), habitat fragmentation, and potentially harmful species ○ Indirect risks including water, noise and light pollution • Capacity and feasibility to enhance the ecological value • Habitat restoration and creation potential • Impact of the proposed design, construction works and operations on site in so far as these have been determined at this stage. <u>Sharing of recommendations:</u> Recommendations and data collected from the survey and evaluation should be shared with the appropriate project team members to influence decisions made for activities during site preparation, design and construction works. At an early stage, it is easier to meaningfully influence design and site activities, whilst minimising or avoiding impacts on cost. For example, this could include recommendations from the ecologist relating to aspects such as: • Site layout that the design team should consider. • Features that landscape architects can incorporate in their design or timing considerations for activities on-site to avoid disruption and maximise opportunities. Determining the Ecological Outcomes (1 credit) Targeted - Yes Typically complete during RIBA Stage 2 The survey and evaluation criteria above must be met. The project team must liaise and collaborate with representative stakeholders early enough to influence key planning decisions to:

Credit	Available	Targeted	Potential	Comments
				- Identify the optimal ecological outcomes for the site. - Identify, appraise, and select measures to meet the optimal ecological outcomes for the site, in line with the mitigation hierarchy of action: - Avoidance - Protection - Reduction or limitation of negative impacts - On site compensation - Enhancement, considering the capacity and feasibility within the site, or where viable, off-site. To meet this criterion, the project team need to liaise with each other to agree what the optimal ecological outcomes are and how they will be achieved. The project team need to consider the following aspects where they are appropriate for the nature and scale of the project, in line with the SQE"s recommendations: - Ecological value and benefit offered (before, during and after project completion) - Biodiversity and ecosystem services benefits offered (before, during and after project completion) - Local microclimatic conditions - Habitat extent, quality, connectivity and fragmentation - Opportunities to enhance the value of existing habitats and biodiversity, or to restore or create new, more valuable ones - Opportunities to align and integrate with existing ecological features and initiatives in the Zone of Influence - The viability of meeting the mitigation hierarchy and capacity and feasibility for enhancement. Project team members include, but are not limited to: - The client, owner, occupier - Design, construction, facilities team

Credit	Available	Targeted	Potential	Comments
				- Specialist consultants. For example, drainage engineer, acoustic consultant or landscape architect, as appropriate for the site. The project team should also consult with other stakeholders to determine appropriate options for the site in question. This may include: - Local government and other statutory relevant organisations - Local community groups or organisations or charities such as the Wildlife Trusts - Local, regional and or national fauna focused groups such as Buglife, RSPB, Bat Conservation Trust etc. The nature of this consultation will vary depending on the projects type and scale and the sensitivity of the site. The SQE can advise on what is appropriate and what justifications are needed as part of evidence. Actions: - Project team to appoint an Ecologist by end of RIBA Stage 2. - Project team to confirm early-stage discussions will take place between the project team and with representative stakeholders to discuss ways to identify and meet the optimal ecological outcomes for the site. - Ecologist to provide initial ecology report and confirm the targeted credits.
e1	Wider site sustainability - Exemplary level criteria	1	0	Exemplary level criteria - Wider site sustainability Targeted – No (potential) Wider sustainability-related activities and potential ecosystem service benefits are considered as part of determining the optimal ecological outcomes for the site including the areas outlined in the Methodology. Achieve the credits of the assessment issues outlined below: Hea 07 Safe and healthy surroundings - Both credits

Credit		Available	Targeted	Potential	Comments
					2. Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution' 3. Pol 05 Reduction of noise pollution
LE 03 - Managing impacts on ecology					
Pre-req	Prerequisite - Ecological risks and opportunities		✓	✗	Prerequisite - LE 02 is achieved
1	Planning and measures on-site	1	1	0	Planning and measures on-site (1 credit, Route 2) Targeted - Yes Complete by RIBA Stage 3 Further planning to avoid and manage negative ecological impacts on-site must be carried out early enough to influence the Concept Design and design brief as well as site preparation planning (typically Concept Design stage). This should build on the measures agreed for delivering optimal ecological outcomes in LE 02 Ecological risks and opportunities, and is likely to include plans for the following: 1. Determine responsibilities, relationships and management required for implementing measures, including clear ownership of each task 2. Allocate roles and responsibilities and identify when these apply 3. Allocate resources to deliver these measures (including financial, time, technical and skills) 4. Implement procedures for monitoring progress against these plans and collect feedback for continual improvement 5. Align with related activities and processes 6. Implement effective handover and collaboration where responsibility is transferred and shared, including transition to long term management and maintenance arrangements. On-site measures for managing negative ecological impacts during site preparation and construction must be implemented in-practice (e.g. mitigation measures to protect existing ecological features).

	Credit	Available	Targeted	Potential	Comments
					Fulfilment of the above criteria must be based on input from the project team in collaboration with representative stakeholders and data collated as part of the Determining ecological outcomes in LE 02 Ecological risks and opportunities. Actions: • Project team to appoint an Ecologist by end of RIBA Stage 2. • Ecologist to provide initial ecology report and confirm the targeted credits. • Project team to confirm early-stage discussions will take place between the project team and with representative stakeholders to discuss measures for managing negative ecological impacts on-site.
2	Managing negative impacts	2	2	0	Managing negative impacts of the project (2 credits, Route 2) Targeted - Yes For Route 2, LE 03 credit 1 must be achieved. Negative impacts from site preparation and construction works must be managed according to the mitigation hierarchy, in line with the SQE's recommendations and, either: • No overall loss of ecological value occurs (two credits). OR, where this is not possible: • The loss of ecological value is minimised (one credit) - <u>Currently targeted.</u> The following hierarchy must be followed when managing negative impacts of the site preparation and construction works: 1. Avoidance of negative impacts of habitats and features of ecological value on the site.

Credit		Available	Targeted	Potential	Comments
					2. If it is not possible to avoid negative impacts; protect habitats and features of ecological value from damage in accordance with best practice guidelines during development works. 3. If it is not possible to achieve 1 or 2 above, fully reduce, limit or control negative impacts as far as possible. 4. Where it is not possible for avoidance, protection, limitation or control of the negative impacts on features of ecological value on site; compensation has taken place to ensure the existing ecological value is maintained during and after the project. The criteria are only met if an SQE confirms the mitigation hierarchy has been followed. Actions: - Project team to appoint an Ecologist by end of RIBA Stage 2. - Ecologist to provide initial ecology report and confirm the targeted credits.
LE 04 - Ecological change and enhancement					
Pre-req	Prerequisite - Managing negative impacts on ecology		✓	✗	Prerequisite - LE 03 must be achieved whereby the roles and responsibilities have been clearly defined and site preparation and construction works have been planned for and implemented at an early stage to optimise benefits and outputs. The client or contractor must confirm compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.
1	Change and enhancement of ecology / Ecological enhancement	1	1	0	Ecological enhancement (1 credit) Targeted - Yes Measures must be implemented to enhance ecological value, based on input from both the project team and the SQE in collaboration with stakeholders and data collected in LE 02. Measures should be implemented in the following order:

Credit	Available	Targeted	Potential	Comments
				- On site, or where it is not feasible - Off site within the zone of influence The ecologist's report must clearly identify the enhancement measures that have been implemented, and justify how they meaningfully enhance the site's ecological value. <u>Collaboration</u> can include, for example, considering guidance from the landscape architect regarding long term maintenance requirements as part of decisions made for habitat creation and enhancement. Data collated should be analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site. Guidance Note 40: Ecology Assessment Reporting Template can be referred to and used to collate information and evidence for the assessment. Actions: - Project team to appoint an Ecologist by end of RIBA Stage 2. - Ecologist to provide initial ecology report and confirm the targeted credits. - It is also recommended that the Ecologist completes an GN40 to assist in the collation of evidence, but this is not compulsory.
2	Change and enhancement of ecology	3	2	Enhancement of Ecology (3 credits) Targeted - Yes (2 credits targeted, 1 potential) Up to three credits can be awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats. How credits are awarded for change in ecological value, as per Guidance

Credit	Available	Targeted	Potential	Comments
				Note KBCN1376: Guidance Note 36 outlines a rewards scale (table 9) for the credits awarded in LE04, Ecological Change and Enhancement. Table 9 breaks down the credits into 4 sections: 1. Minimising loss 2. No net loss 3. Net Gain 4. Significant net gain Sections 1-3 correspond to the 3 credits awarded when a project follows the comprehensive route. Exemplary level credits are given if section 4 is achieved. There are two approaches that can be used for this calculation methodology, depending on the scale and size of the project and distinctiveness of the habitats on the site: • Full methodology - This must be used where the pre-development habitats are above the set size threshold of 0.05 hectares in total or include habitats that are of high distinctiveness. • Simplified methodology - This can be used where the pre-development habitats are below the set size threshold and no habitats present that are of high distinctiveness. 1 credit is currently assumed for minimising loss and 2 credits listed as potential for no net loss, as an estimate. Ecologist to confirm. Actions: • Project team to appoint an Ecologist by end of RIBA Stage 2. • Ecologist to provide initial ecology report and confirm the targeted credits. • Ecologist to complete the GN36 checklist to confirm the anticipated change in ecological value of the project.

	Credit	Available	Targeted	Potential	Comments
e1	Change and enhancement of ecology - Exemplary level criteria	1	0	0	Change and enhancement of ecology (1 exemplary level credit) Targeted – No The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2. Actions: Credit not sought due to high benchmarks
LE 05 - Long term ecological management and maintenance					
Pre-req	Prerequisite - Statutory obligations, planning and site implementation		✓	✗	Prerequisite: The client or contractor must confirm that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. For Route 2 (targeted), the Managing Negative Impacts criteria in LE 03 must be achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' must be awarded.
1	Management and maintenance throughout the project / Landscape and ecology management plan	2	2	0	Management and maintenance throughout the project (1 credit) Targeted - Yes - Measures must be implemented to manage and maintain ecology throughout the project. - These measures should be based on input from the project team in collaboration with representative stakeholders and data collated as part of the Determining ecological outcomes in LE 02. - To ensure the optimal ecological outcomes agreed in LE 02 are met in-practice, these measures must monitor and review the effectiveness of the mitigation and enhancement measures in place for LE 03 & LE 04 to ensure they are implemented. - A section on Ecology and Biodiversity should be included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site. This should include detailed management and maintenance

Credit	Available	Targeted	Potential	Comments
				plans as required by landscape and asset managers as well as relevant parts of the handover information for occupiers written in a format that encourages understanding and supportive behaviours. <u>Examples of management and maintenance throughout the project:</u> • Monitoring and reporting of outcomes and successes from the project • Arrangements for the ongoing management of landscape and habitat connected to the project (on and, where relevant, off site) • Maintaining the ecological value of the site and its relationship or connection to its Zone of Influence • Maintaining the site in line with any sustainability linked activities, e.g. wider sustainability benefits (LE 02 Ecological risks and opportunities). <u>Handover information contents:</u> The handover information should include the following content, as appropriate: • Details of the ecological value within the property boundary (e.g. public and private gardens, green roofs), common areas (e.g. communal garden), and the surrounding area (e.g. public recreational space). • The benefits of the ecological value to the occupants and the broader community. • Guidance on how the occupants can make the most of the local ecology and contribute to its management, (e.g. planting ecologically appropriate species in their property), as well as things that should be avoided doing (e.g. disrupting wildlife corridors, planting invasive species or allowing them to colonise and spread) • Relevant actions that can be taken to enhance value within the property to help ensure its ongoing management and maintenance. • Contact details for those responsible for the management and maintenance of the local ecology and sources of local information on biodiversity and ecological management including management companies and local wildlife trusts.

Credit	Available	Targeted	Potential	Comments
				Landscape and ecology management plan (or similar) development (1 credit) Targeted - Yes A Landscape and Ecology Management Plan, or equivalent, must be developed in accordance with BS 42020:2013 Section 11.1 covering at least the first five years after project completion as a minimum and including: • Actions and responsibilities of relevant individuals prior to handover • The ecological value and condition of the site at handover and how this is expected to develop and change over time • Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework • Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts • Clearly defined and allocated roles and responsibilities for delivering the plan The landscape and management plan or similar must be updated to support maintenance of the ecological value of the site (see sections relating to Maintenance and Monitoring in CIEEM, CIRIA, IEMA, for helpful guidance). Actions: • Project team to appoint an Ecologist by end of RIBA Stage 2. • Ecologist to provide initial ecology report and LEMP and confirm the targeted credits.
	13	10	2	Standard Land Use & Ecology Credit Total
	2	0	1	Exemplary Land Use & Ecology Credit Total
	15	10	3	% Land Use & Ecology Total (Standard + Exemplary)

Credit	Available	Targeted	Potential	Comments
Pollution				
Pol 01 - Impact of refrigerants				
1	Impact of refrigerants	3	1	Impact of refrigerants (3 credits) Targeted - Yes (1 credit targeted, 1 credit potential) Prerequisite: All systems with electric compressors should comply with the requirements of BS EN 378:20161. Refrigeration systems containing ammonia should comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice. Impact of refrigerant (2 credits) Targeted - Yes (1 credit targeted, 1 potential) - For three credits (Potential): There is no refrigerant use within the installed plant or systems. - For two credits: The direct effect life cycle CO₂ equivalent emissions (DEL_{CO2}) of 100 CO₂-eq/kW OR all refrigerants used have a global warming potential (GWP) 10. For one credit (Targeted): Systems using refrigerants have a DEL_{CO2} of 1000kgCO₂-eq/kW cooling and heating capacity. The above are calculated through completion of the Pol 01 calculator, using the information (AC datasheets, refrigerant datasheets, etc.) provided by the Project Team relating to the refrigerant systems specified. Leak detection (1 credit) Targeted - No (Potential) - All systems are hermetically sealed or only use environmentally benign refrigerants. OR

Credit		Available	Targeted	Potential	Comments
					- An inbuilt automated diagnostic procedure for detecting leakage is enabled. In the event of a leak, the system must be capable of automatically responding and managing the remaining refrigerant charge to limit the loss of refrigerant. Actions: - MEP to confirm whether refrigerants will be used on site. If no refrigerants are to be specified, these 3 credits can be awarded by default.
Pol 02 - Local air quality					
1	Local air quality	2	2	0	Local Air Quality (2 credits) Targeted – Yes - All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity. OR, alternatively; - Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Tables 12.4 & 12.5 of the BREEAM NC V6.1 manual. Credits are awarded based on the appliance type and unit, fuel and the pollution location of the assessed site. Actions: - Design Team/M&E to confirm the heating strategy and whether the emissions will or will not exceed the levels set out in the BREEAM criteria. - If an all-electric scheme is opted for, these 2 credits will be automatically awarded.

Credit	Available	Targeted	Potential	Comments	
Pol 03 - Flood and surface water management					
1	Flood resilience	2	2	0	Flood resilience (2 credits) Targeted - Yes Low Flood Risk (2 credits) A desk study undertaken by SRE (Preliminary Drainage and Flood Risk analysis based on the Environmental Agency mapping) suggests that the development has a very low risk of flooding. A detailed, site-specific flood risk assessment (FRA) is required to confirm the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA must take all current and future sources of flooding into consideration. Actions: Project team to confirm that a flood risk assessment will be undertaken which confirms that the site has a very low flood risk before planning. This is to be sent to SRE for review.
2	Surface water run-off	2	2	0	Surface water run-off (2 credits) Targeted - Yes (2 credit) <u>Pre-requisite:</u> 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 (Targeted) For brownfield sites, 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. Relevant maintenance agreements for the ownership, long-term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place. Calculations include an allowance for climate change. This should be made in

Credit	Available	Targeted	Potential	Comments
				accordance with current best practice planning guidance. One credit - Surface Water Run-Off - Volume (Potential) Flooding of the property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND EITHER - 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 development of the assessed site. This must be for the 100-year 6-hour event, including an allowance for climate change. - Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques. OR - 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: The pre-development one-year peak flow rate, the mean annual flow rate (Qbar) and 2L/s/ha. For the one-year peak flow rate, the one-year return period event criterion applies. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance. Actions: - Project team to confirm exiting sites condition. - Drainage consultant to be appointed to provide a drainage report confirming the above.

	Credit	Available	Targeted	Potential	Comments
3	Minimising watercourse pollution	1	0	0	Minimising watercourse pollution Targeted - No • There is no discharge from the developed site for rainfall up to 5mm (confirmed by the appropriate consultant). • In areas with a low-risk source of watercourse pollution, an appropriate level of pollution prevention treatment is to be provided, using appropriate SuDS techniques. • Areas with a high risk of contamination or spillage of substances, such as petrol and oil, must have separators (or an equivalent system) installed in surface water drainage systems. • Chemical or liquid gas storage areas must 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. • All water pollution prevention systems are to be designed and installed in accordance with the recommendations of documents such as the SuDS manual 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. • A comprehensive and up-to-date drainage plan of the site is to be made available for the building or site occupiers. • Relevant maintenance agreements for the ownership, long-term operation and maintenance of all specified SuDS must be in place. • All external storage and delivery areas are to be designed and detailed in accordance with the current best practice planning guidance. Actions: • Credit not assumed due to high benchmarks. • Drainage consultant to be appointed to provide a drainage report confirming the above.

Credit		Available	Targeted	Potential	Comments
Pol 04 - Reduction of night time light pollution					
1	Reduction of night time light pollution	1	1	0	Reduction of night-time light pollution (1 credit) Targeted - Yes <i>EITHER:</i> - External lighting pollution is eliminated through effective design that removes the need for external lighting. This must not adversely affect the safety and security of the site and its users. <i>OR:</i> - The external lighting strategy is 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, 2011. - All external lighting (except for safety and security lighting) must be able to be automatically switched off between 23:00 and 07:00. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system must comply with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes. - Illuminated advertisements must be designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements. Actions: - Project team/ MEP to confirm that external lighting will be specified in line with the above requirements.
Pol 05 - Reduction of noise pollution					

	Credit	Available	Targeted	Potential	Comments
1	Reduction of noise pollution	1	1	0	Reduction of noise pollution (1 credit) Targeted - Yes <i>EITHER:</i> There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site. <i>OR:</i> Where there are noise-sensitive areas within the assessed building or noise-sensitive areas within 800 m radius of the assessed site, a noise impact assessment compliant with BS 4142:2014 must be carried out by a suitably qualified acoustic consultant. Noise levels must be measured or determined for: - Existing background noise levels: - at the nearest or most exposed noise-sensitive development to the proposed assessed site - including existing plant on a building, where the assessed development is an extension to the building - Noise rating level from the assessed building. The noise level from the assessed building, as measured in the locality of the nearest or most exposed noise-sensitive development, must be at least 5dB lower than the background noise throughout the day and night. If the noise sources from the assessed building are greater than the levels described in above, measures must be installed to attenuate the noise at its source to a level where it will comply with the criterion. <u>Noise-sensitive areas</u> Landscapes or buildings where the occupiers are likely to be sensitive to noise created by the new plant installed in the assessed building, including: - Residential areas

Credit		Available	Targeted	Potential	Comments
					2. Hospitals, health centres, care homes, doctors surgeries etc. 3. Schools, colleges and other teaching establishments 4. Libraries 5. Places of worship 6. Wildlife areas, historic landscapes, parks and gardens 7. Located in an Area of Outstanding Natural Beauty or near a Site of Special Scientific Interest 8. Any other development that can be considered noise-sensitive. Not all of these locations will necessarily be sensitive at all times. The assessments should be carried out at times which are relevant to the location use. Actions: Acoustician to be appointed to perform an external acoustic survey before any enabling works, demolition or construction begins on site.
		12	8	1	Standard Pollution Credit Total
		0	0	0	Exemplary Pollution Credit Total
		8.04	5.36	0.67	% Pollution Total (Standard + Exemplary)
Innovation					
AI - Approved Innovation					
e1	Approved innovations	1	0	0	
		0	0	0	Standard Innovation Credit Total
		1	0	0	Exemplary Innovation Credit Total
		1	0	0	% Innovation Total (Standard + Exemplary)



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