

Method Consulting

Intelligent engineering,
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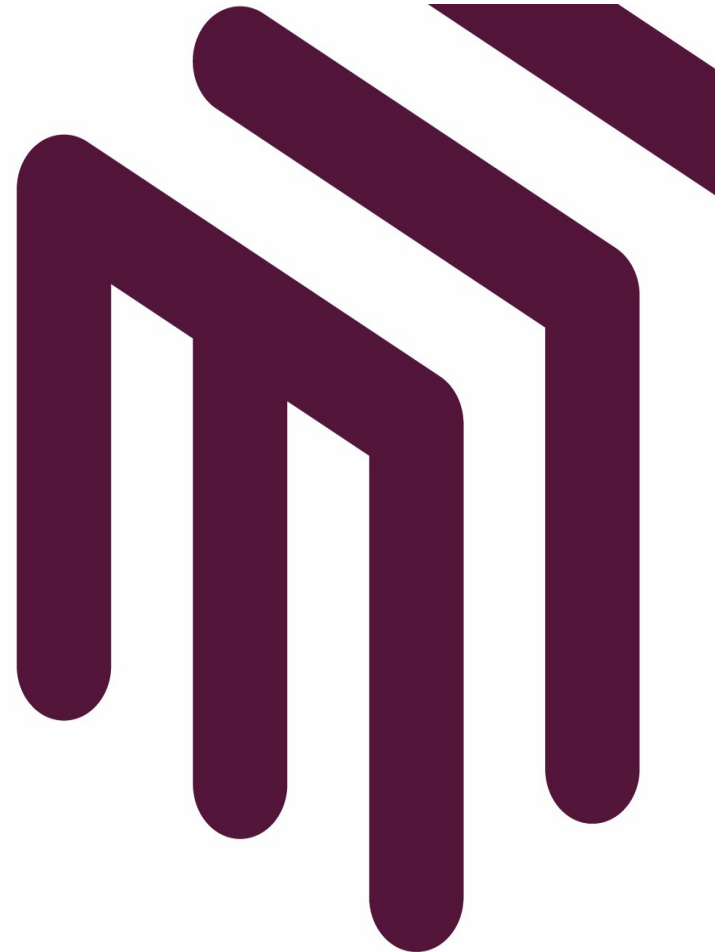
Middle Aston - The Hatchery

BREEAM 2018 New Construction Issue 3.0

Offices (Fully Fitted)

Pre-Assessment Summary Sheet

Revision P4, 18 March 2020



BREEAM Assessments • BREEAM AP • SKA • WELL • Post Occupancy Evaluation • IMPACT LCA • Energy and Sustainability Statements • Home Quality Mark • SAP & SBEM, EPCs • DREAM • Passivhaus

Middle Aston - The Hatchery BREEAM Pre-Assessment

Introduction

BREEAM, the UK's Building Research Establishment's Environmental Assessment Method, is used to rate the environmental performance of new or existing buildings, as designed and constructed and/or in operation. A BREEAM rating can be awarded where sufficient credits have been gained on the basis of meeting environmental performance criteria in each of the technical categories:

Rating levels	BREEAM categories	
Pass	Management	Materials
Good	Health and Wellbeing	Waste
Very Good	Energy	Land Use and Ecology
Excellent	Transport	Pollution
Outstanding	Water	Innovation

This pre-assessment has been carried out based on the BREEAM 2018 New Construction Design Stage Criteria for Office buildings (Fully Fitted). This scheme is applicable to new build projects. In addition to a range of standard issues assessed for all building types, this also includes requirements specific to Office buildings which have been included in the pre-assessment.

Additionally, the 'Similar Buildings Approach' is being used to assess all buildings on site under a single assessment, as all buildings share the same principal function and will be of a similar construction type and specification. BREEAM issues must be assessed for every building, and credits awarded based on the worst performing building for each assessment issue included. A Similar Buildings assessment results in a single BREEAM rating covering all buildings assessed.

Please note that this pre-assessment includes a summary of the requirements for each credit but the BREEAM Technical Manual should be referred to for full details.

Scoring and mandatory requirements

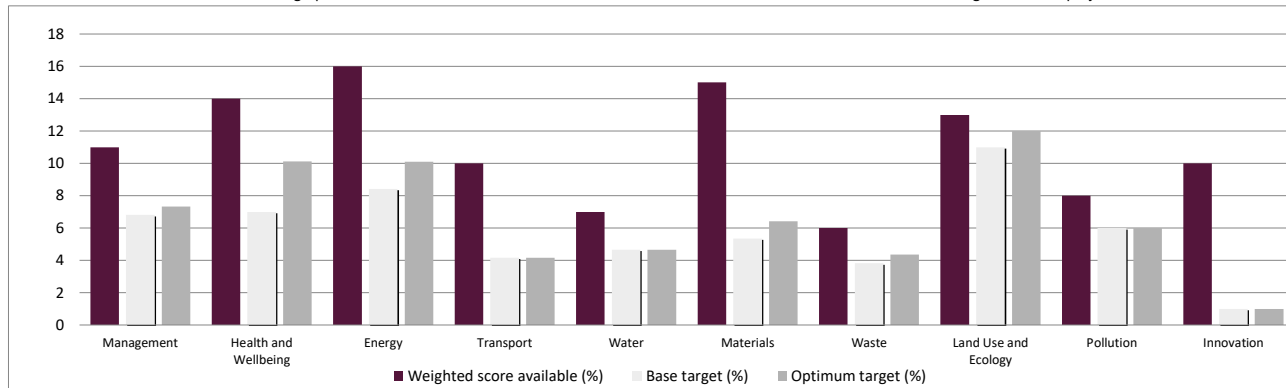
BREEAM requires the achievement of a minimum percentage score in order to achieve a particular rating. This is determined by a scoring system in which credits are assigned to issues under each of the sections above. These sections are each weighted differently so credits in different sections equate to a different percentage score to those in other sections. The percentage contribution of each credit to the final score is noted at the end of each section in the following pages.

In addition to the achievement of a minimum score, BREEAM also contains mandatory credits/requirements which MUST be achieved in order to obtain a particular rating. If these are not achieved, the required rating cannot be obtained regardless of the percentage score achieved. In BREEAM 2018, there are also 'pre-requisites' which do not carry a score, but must be achieved in order to award a credit and/or rating. Where a pre-requisite or mandatory credit is present, this is clearly highlighted in the main summary spreadsheet below. A list of the mandatory credits can be found on the next page.

Pre-assessment results

Base Target	The base target shows the minimum credits anticipated to be achieved for the development. This equals 58.24% which is a rating of Very Good.
Optimum Target	The optimum target shows which credits could potentially be gained, although the feasibility of achieving some of these will require further investigation. This equals 66.18% which is a rating of Very Good.

This graph below shows the number of credits available for each environmental issue and the number targeted for this project.



Stage of assessment: Interim design stage	Project Assessor: Sarah Briaris, Natasha Fox Tel: 01793836607 / 01793239639
BRE Reference Number: TBC	Project AP: N/A

Credit not targeted	
Evidence outstanding/requires review	
Credit awarded	

RIBA Stage 1&2	Complete?
Man 01 Roles	
Man 01 Consultation	
Man 01 BREEAM AP	
Man 02 LCC	
Hea 06 Security	
Ene 04 Passive Design	
Ene 04 LZC study	
Tra 01 Travel Plan	
Mat 01 Materials	
Mat 03 Procurement	
Mat 06 Mat. Efficiency	
Wst 01 Pre-demo Audit	
Wst 05 Climate change	
Wst 06 Disassembly	
LE02/03 Ecology	

Building address: Hatch End Industrial Estate, Middle Aston, Oxon OX25 5QL
Scope of BREEAM assessment: Fully fitted, new-build office spaces, across seven buildings
Number of buildings: 7 Buildings (28 units)
GIA: 3170 m2
NIA: 2926 m2
Heating strategy: TBC
Cooling strategy: TBC
Ventilation strategy: TBC
Lift type: N/A
LZCs: TBC (Potentially ASHP)
Meeting record: 12/02/19 Pre-assessment meeting with Design Team & Client

Contents Amendment Record
P1: Pre-assessment
P2: Updated pre-assessment following BREEAM Workshop (Scores Only)
P3: Updated pre-assessment following BREEAM Workshop (incl. actions and minor changes to scores)
P4: Final Planning Revision.

BREEAM Standards	Project Targets
Total required for 'Pass'	30 MINIMUM BREEAM RATING REQUIRED: Very Good (This equates to a score of 55% and requires the achievement of certain mandatory credits.)
Total Required for 'Good'	45 It should be noted that until sufficient evidence is provided by the project team to the BREEAM Assessor to demonstrate that the full requirements have been met, none of these scores can be assumed to have been achieved, but remain as targets until the assessor confirms otherwise. This pre-assessment is based on discussions at project team meetings and additional correspondence.
Total required for 'Very Good'	55
Total required for 'Excellent'	70 The base target shows the minimum credits anticipated to be achieved for the development. This equals 58.24% which is a rating of Very Good.
Total required for 'Outstanding'	85 The optimum target shows which credits could potentially be gained, although the feasibility of achieving some of these will require further investigation. This equals 66.18% which is a rating of Very Good.

Expected Scores (%)	
Minimum required	55
Base Target	58.24
Optimum Target	66.18

Credit Title	Summary of mandatory requirements
Man 03 Responsible Construction Practices (Considerate Construction)	One credit for Excellent. Two credits for Outstanding.
Man 04 Commissioning and Handover	One credit and a Building User Guide for Very Good and above.
Man 05 Aftercare	Commissioning Implementation for Excellent and above.
Ene 01 Reduction of Energy Use and Carbon Emissions	At least four 'Energy Performance' credits for Excellent. At least six 'Energy Performance' and four 'Energy Modelling and Reporting' credits for Outstanding.
Ene 02 Energy Monitoring	Sub-metering of end-use categories for Very Good and above.
Wat 01 Water Consumption	At least one credit for Good and above. At least two credits for Outstanding.
Wat 02 Water Monitoring	A water meter on the mains supply to each building for Good and above.
Mat 03 Responsible Sourcing of Construction Products	All ratings. All timber used on the project is 'legally harvested and traded timber'.
Wst 01 Construction Waste Management	One credit for Outstanding.
Wst 03 Operational Waste	At least one credit for Excellent and above.

BREEAM Manual Link
<http://www.breem.com/NC2018/>

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
MANAGEMENT								
Man 01 Project brief and design				To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.				
Project delivery planning (1-3) RIBA STAGE 2 ACTION	1	0	0	<p>Credit awarded where, prior to completion of the Concept Design, the client, building occupier, design team and contractor meet to identify and define for each key phase of project delivery: a) Roles, b) Responsibilities, c) Contributions.</p> <p>Demonstrate through documentation that consideration was given to all topics as listed in the guidance (requirements 2a-h) - e.g. user requirements, design aims, installation limitations, budget and expertise, maintainability, operational energy, documentation production etc.</p> <p>Demonstrate how the project delivery stakeholders' contributions and the consultation process outcomes influence: a. Initial Project Brief; b. Project Execution Plan (PEP); c. Communication Strategy; d. Concept Design.</p>	0.52%	<p>Credit not targeted. Requires the team to have met during Stage 2 to discuss and agree roles and responsibilities for each stage of the project, covering all topics listed by BREEM. Evidence must reflect how discussions have influenced specific strategies/ plans (eg. PEP, Communication Strategy, Project Brief, which need already to have been drafted). The requirements of this credit also assume the project team will remain largely consistent throughout design stage (this is not certain at this stage).</p>	-	-
Stakeholder Consultation (Interested Parties) (4-6) RIBA STAGE 2 ACTION	1	1	1	<p>Credit awarded where prior to completion of the Concept Design, the design team consult with all interested parties on matters that cover the minimum consultation content (Refer to guidance for full details). The project team must demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design.</p> <p>Prior to completion of the detailed design (RIBA Stage 4 or equivalent), all interested parties give and receive consultation feedback.</p>	0.52%	<p>Evidence received from the Client (13/02/20) indicates this credit can be targeted on the basis of the consultation activities carried out to date. (Consultation with two local parishes, scouts, and tenant/ building user advisors (Carter Jonas and Bidwell). The required consultation content was covered within minuted discussions and advisory reports).</p> <p>Action: Provide all consultation documentation from Stage 2 to the Assessor. Provide a brief note or site plans/ drawings demonstrating how stakeholder contributions have influenced/ changed the initial project brief and concept design.</p> <p>Action: Prior to the end of Stage 4, all consultees must receive consultation feedback – so any issues that are brought up in initial consultations and during the formal period of public consultation must be responded to by the project team prior to finalising the design.</p>	Client	RIBA Stage 2
Pre-requisite (BREEM AP) (Concept and Developed Design) (8) RIBA STAGE 2 ACTION	0	N	N	<p>Note: This must be achieved in order to achieve the following BREEM AP credits. Pre-requisite awarded where the project team, including the client, formally agree strategic performance targets early in the design process (with the support of the BREEM Advisory Professional where appointed).</p> <p>To demonstrate 'formally agreed', this should be contracts or letters of appointment with the architect and other relevant project team members).</p>	0.00%	Pre-requisite not targeted. (Credits below not targeted)	-	-
BREEM AP (Concept Design) (9) BREEM AP Developed Design) (10-11) RIBA STAGE 2 ACTION	2	0	0	<p>Up to two credits awarded where BREEM AP is involved to:</p> <p>a) Work with the project team, including the client, to consider links between BREEM issues and assist in maximising the overall performance against BREEM, from their appointment and throughout <u>Concept Design (one credit) and Developed Design (second credit)</u>.</p> <p>b) Monitor progress against performance targets agreed under the pre-requisite throughout all stages after appointment where decisions critically impact BREEM performance.</p> <p>c) Proactively identify risks and opportunities related to the achievement of the targets agreed under the pre-requisite.</p> <p>d) Provide feedback to the project team, to support them in taking corrective actions and achieving agreed performance targets.</p> <p>e) Monitor and, where relevant, coordinate the generation of evidence by the project team. The BREEM AP must attend key meetings (see Definitions) with the project team during the Concept Design, Developed Design and Technical Design stages.</p>	1.05%	<p>Credits not targeted. Method not appointed to undertake BREEM AP role. This appointment needs to have been instructed at a stage early enough to influence the initial brief, early design and the setting of targets.</p> <p>The concept design credit must be achieved in order for the developed design credit to be achieved.</p>	-	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Man 02 Life cycle cost and service life planning				To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.				
Elemental Life Cycle Cost (LCC) (1-3) RIBA STAGE 2 ACTION	2	0	0	Two credits awarded where a competent person carries out an outline, entire asset LCC plan at RIBA Stage 2 together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865: 20081. The elemental LCC plan must 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) and includes service life, maintenance and operation cost estimates. 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.	1.05%	Credits not targeted. Requires appointment of cost consultant at Stage 2 for production of compliant LCC report. Results/ recommendations to inform technical/ developed design. Team advised no appointment for this has been made to date. Post Meeting Note: To clarify, BREEAM defines a Competent Person as: "An individual who has acquired substantial expertise or a recognised qualification for undertaking life cycle costing studies and is not professionally connected to a single manufacturer."	-	-
Component Level LCC options appraisal (4-5)	1	0	0	Credit awarded where a competent person develops a component level LCC options appraisal by the end of RIBA Stage 4 in line with PD 156865: 2008. The component level LCC should cover and review the envelope, services, finishes, external spaces (selections that will offer valued comparisons). 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.	0.52%	Credit not targeted. Requires appointment of cost consultant at Stage 4 for production of compliant LCC report. Results/ recommendations to inform developed design. Team advised (12/02/20) that it is not anticipated this additional appointment will be made.	-	-
Capital Cost Reporting (6)	1	1	1	Credit awarded where the project team reports the capital cost for the building in (£k/ m ²) of gross internal floor area. At the design stage, this can be awarded based on confirmation of the predicted cost, and a client commitment to provide the information on the final cost at the end of the project.	0.52%	It was agreed (meeting 12/02/20) that this would be targeted. Action: Client to provide a letter of commitment to provide the final capital cost at the end of the project and an estimated cost for the purposes of the design stage assessment (using Method template).	Client/ Contractor	-
Man 03 Responsible construction practices				To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.		Mandatory minimum requirement: One credit for Excellent and two credits for Outstanding for Responsible Construction Management.		
Pre-requisite (1)	0	Y	Y	MANDATORY FOR ALL RATINGS: All timber and timber based products used during the construction process of the project are legal and sustainable timber.	0.00%	It was agreed (meeting 12/02/20) that this would be targeted. Action: Contractor to provide a letter of commitment (using Method template).	Contractor	-
Environmental Management (3-4)	1	0	0	Credit awarded where all parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations. This is typically ISO 14001 certification. AND The same parties demonstrate via evidence that they have implemented best practice pollution prevention policies and procedures on site in accordance with PPG 6.	0.52%	Credit not targeted. Appointed contractor (Hawkins Group) does not have ISO 14001 certification.	-	-
Pre-requisite (BREEAM AP Site) (5)	0	N	Y	Pre-requisite awarded where the client and the contractor formally agree performance targets, via a contract.	0.00%	Pre-requisite not targeted at this stage; advisable to include as part of the optimum target. Action: Client to include BREEAM target in formal agreement with Contractor (using Method standard clauses).	Client/ Contractor	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
BREEAM AP (Site) (6)	1	0	1	Involve a BREEAM AP in the project at an appropriate time and level to cover requirements 6 a-e of the BREEAM requirements (refer to guidance for details). This is the same scope as required under Man 01 above, but for the Construction, Handover and Close Out stages.	0.52%	Credit not targeted at this stage; identified as an optimum credit. Consider targeting this credit depending on overall performance towards end of design stage or if certain credits prove unachievable at the next stage of design. BREEAM AP would need to be appointed at start of construction stage. AP role would require regular visits to site and meetings with Contractor to ensure project keeps on track throughout construction in terms of meeting BREEAM commitments and final target score. Action: Contractor to provide a letter of commitment (using Method template).	Contractor	-
Responsible Construction Management (7-9)	2	2	2	MANDATORY FOR EXCELLENT: One credit awarded where the ticked items in Table 4.1 of the BREEAM guidance have been covered. MANDATORY FOR OUTSTANDING: Two credits awarded where the above has been achieved and six additional items have been covered from the table. Note: Achieving a CCS score of at least 35 plus ensuring clear and safe access in and around the building at the point of handover would be sufficient for two credits.	1.05%	It was agreed (meeting 12/02/20) that two credits would be targeted. Method has provided the Contractor with full criteria and Guidance Note 33 which sets out an alternative method for compliance (i.e. CCS registration and score of 35+). Action: Contractor to provide a letter of commitment (using Method template).	Contractor	-
Monitoring of Construction Site Impacts (Utility Consumption) (11-18) (Transport) (19-22)	2	2	2	Up to two credits awarded where responsibility for monitoring all data on site has been assigned to an individual. AND First credit: Set targets, monitor and record data for the site energy consumption in kWh (where relevant, litres of fuel) and potable water consumption (m ³) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. Report the total CO ₂ emissions (total kgCO ₂ / project value). Second credit: 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 needs to cover requirements 20-21 (refer to guidance for details). Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions (kgCO ₂ -eq), total distance travelled (km).	1.05%	It was agreed meeting (12/02/20) both credits would be targeted. The meters/monitoring will need to be in place from start on site. Action: Contractor to provide a letter of commitment (using Method template).	Contractor	-
Man 04 Commissioning and handover				To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.		Mandatory minimum requirement: Achieve the 'Commissioning - testing schedule and responsibilities' credit and have a compliant Building User Guide for Very Good and above.		
Commissioning - Testing Schedule and Responsibilities (1-5)	1	1	1	Credit awarded where a schedule of commissioning and testing is prepared and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric. Please refer to the technical guidance for details of the appropriate standards (2 a-d) and BMS commissioning procedures (3 a-e). AND An appropriate project team member is appointed to monitor and programme pre-commissioning, commissioning and, where necessary, re-commissioning on behalf of the client. AND The principal contractor accounts for the commissioning programme, responsibilities and criteria within their budget and programme of works.	0.52%	It was agreed (meeting 12/02/20) that this would be targeted. This requires best practice commissioning and an appropriate project team member to be appointed to programme and monitor commissioning activities. Action: M&E to include compliant clause in the specification (using Method standard clauses). Action: M&E/Contractor to produce a draft commissioning schedule for design stage assessment.	M&E/ Contractor	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Commissioning - Design and Preparation (6-7)	1	1	1	<p>Credit awarded where the first commissioning credit has been achieved and an appropriate project team member has been appointed during design stage with responsibility for:</p> <p>a) Undertaking design reviews and advising on suitability for ease of commissioning. b) Providing commissioning management input to construction programming and during installation stages. c) Management of commissioning, performance testing and handover / post-handover stages.</p> <p>Note: For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager.</p>	0.52%	<p>It was agreed (meeting 12/02/20) that this would be targeted. Note that for any complex building systems and services specified, a specialist commissioning manager will need to be appointed to carry out the requirements of this credit.</p> <p>Post Meeting Note: To clarify, BREEAM defines a specialist commissioning manager as a specialist contractor rather than a general sub-contractor, able to independently verify the work carried out by the project team members installing the systems. They can be appointed by the client or the contractor to perform the tasks described under the relevant criteria for buildings with complex building services and systems and defined in their contract. The specialist commissioning manager shall be a professional who has experience or qualifications that enable them to undertake the responsibilities described in this issue. E.g. membership to the Commissioning Specialists Association (CSA) is a relevant qualification.</p> <p>Complex systems include, but are not limited to, air-conditioning, comfort cooling, mechanical ventilation, displacement ventilation, complex passive ventilation, BMS, renewable energy sources, cold storage enclosures and refrigeration plant.</p> <p>Action: M&E to include compliant clause in the specification (using Method standard clauses).</p>	M&E	-
Testing and Inspecting Building Fabric (8-10)	1	1	1	<p>Credit awarded where the first commissioning credit is achieved, and a post construction thermographic survey and airtightness testing and inspection is completed to assure the quality of the building fabric, including insulation continuity, avoidance of thermal bridging and air leakage paths. Defects identified must be rectified prior to building handover.</p> <p>All testing must be carried out by a Suitably Qualified Professional, in line with the appropriate standard and evidence of qualifications will be required.</p>	0.52%	<p>It was agreed (meeting 12/02/20) that this would be targeted. A full thermographic survey will need to be undertaken in addition to air testing and accounted for within the contractor's budget and project programme</p> <p>Action: Contractor to provide a letter of commitment (using Method template).</p>	Contractor	-
Handover (11-12)	0	Y	Y	<p>MANDATORY FOR VERY GOOD AND ABOVE: Two Building User Guides are developed prior to handover covering all functions and uses of the building. One for the non technical user (distributed to building occupiers) and one for the technical user (premise facilities managers). Where building occupants are known, a draft copy should be discussed and developed with these users. Note in order to achieve a Very Good rating or better, this requirement must be achieved.</p>	0.00%	<p>It was agreed (meeting 12/02/20) that this would be targeted.</p> <p>Action: Contractor to provide a letter of commitment (using Method template).</p>	Contractor	-
	1	1	1	<p>Credit awarded where, in addition to the above, two training schedules are developed for handover: One for the non technical user (distributed to building occupiers) and one for the technical user (premise facilities managers). Refer to guidance for details of what needs to be included in the BUGs and training schedules.</p>	0.52%	<p>It was agreed (meeting 12/02/20) that this would be targeted.</p> <p>Action: Contractor to provide a letter of commitment (using Method template).</p>	Contractor	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Man 05 Aftercare				To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.		Mandatory minimum requirement: One credit (Commissioning - implementation) for Excellent and Outstanding.		
Aftercare Support (1-2)	1	1	1	Credit awarded where the principal contractor provides aftercare support to the building occupier, which includes a meeting, introducing available aftercare support, introduction to the building systems and walkabout of the building. They also need to provide two levels of aftercare support; including on-site attendance for a month after handover and longer term support for at least the first 12 months. AND The client/building occupier commits to collect and monitor energy and water consumption data for a minimum of 12 months, once the building is occupied, to analyse discrepancies between actual and predicted performance.	0.52%	It was agreed (meeting 12/02/20) that this would be targeted. The client will need to commit to undertaking the relevant data collection for at least the first 12 months post occupancy. Action: Contractor to provide a letter of commitment for aftercare support (using Method template). Action: Client to provide a letter of commitment for data collection (using Method template).	Contractor/Client	-
Commissioning - Implementation (3)	1	1	1	MANDATORY FOR EXCELLENT AND ABOVE: Credit awarded where the following commissioning activities are undertaken over 12 months after building occupation: Complex systems: The specialist commissioning manager: a) Identifies occupier changes that might have impaired or improved performance. b) Test all building services under full load conditions (heating equipment in mid-winter, cooling and ventilation equipment in mid-summer and under part load conditions (spring and autumn). c) Where applicable, carry out testing during periods of extreme (high/low) occupancy. d) Interview building occupants to identify problems regarding the effectiveness of the systems e) Produce monthly reports comparing sub-metered energy performance to the predicted f) Identify inefficiencies and areas in need of improvement g) Recommissioning of systems (following any work needed to serve revised loads), and incorporate any revisions in operating procedures into the O&M manuals. Simple systems (naturally ventilated): The external consultant, aftercare team or facilities manager: a) Reviews thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation. b) Identifies deficiencies and areas in need of improvement. c) Recommissions systems and incorporates any relevant revisions in operating procedures into the O&M manuals.	0.52%	It was agreed (meeting 12/02/20) that this would be targeted. (Refer to technical manual or Man 04 notes above for definitions of a specialist commissioning manager and complex systems). Action: Contractor to provide a letter of commitment confirming commissioning activities will be undertaken for first year of occupation (using Method template). Include a note in the draft commissioning schedule that seasonal commissioning is included and provide a copy for the design stage assessment.	Contractor/ Client	-
Post Occupancy Evaluation (4-7)	1	1	1	Credit awarded where the client makes a commitment to carry out a Post Occupancy Evaluation (POE) one year after building occupation, to gain building performance feedback. The POE should be carried out by an independent third party. See technical guidance for full list of what should be included. The client or building occupier must commit funds to pay for the POE in advance (to avoid making an empty commitment). This requires an independent party to be appointed and a report with lessons learned should be produced.	0.52%	It was agreed (meeting 12/02/20) that this would be targeted. This requires a formal POE to be carried out one year after occupation by an independent third party. Action: Client to provide a letter of commitment (using Method template).	Client	-
Sub-Total	21	13	14					
Weighted Sub-Total	11	6.81	7.33	One management credit equals 0.52%				

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
HEALTH & WELLBEING								
Hea 01 Visual comfort				To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.				
Control of glare from sunlight (1-3)	1	1	1	<p>Credit awarded where areas at risk of glare have been identified using a glare control assessment, this also needs to justify any areas deemed not at risk of glare. The potential for glare needs to be designed out through building layout (e.g. low eaves) or building design (e.g. brise soleil, bioclimatic design or blinds) in all relevant building areas via a glare control strategy. Include rooflights in the assessment.</p> <p>The glare control strategy should avoid increasing lighting energy consumption by maximising daylight levels whilst avoiding disabling glare. System should not inhibit daylight entering the space under cloudy conditions, and the location of shading should not conflict with operating lighting controls. Occupant controlled devices such as blinds should have a transmittance value of <0.1 (10%).</p>	0.78%	<p>It was agreed (meeting 12/02/20) that this would be targeted. Occupant controlled blinds will be specified to all glazing in all relevant building areas. It was noted that the light transmittance value for the blinds must be less than 0.1. Note also, where roof lights are present, they must be considered when demonstrating that the glare control strategy provides adequate control/measures for minimising glare in that space.</p> <p>Action: Arch/ Contractor to specify compliant glare control strategy (blinds in all relevant building areas). If blinds are not specified to all areas, provide a glare control assessment report to justify the locations of glare control measures provided (by showing low risk areas that do not require glare control). Provide marked up drawings showing the locations of all specified blinds, a copy of the specification confirming blinds included and a copy of the manufacturer's details for the specified blinds to confirm compliant transmittance.</p>	Arch/ Contractor	-
Daylighting (4)	2	0	2	<p>Two credits awarded where calculations have been carried out which demonstrate that at least 80% of floor area in occupied spaces is adequately daylight AND complete the criteria outlined in Table 5.2 or 5.3 (refer to guidance for details).</p>	1.56%	<p>It was agreed post meeting (12/03/20) that these credits should be identified as optimum credits. Detailed arrangement of glazing is yet to be established.</p> <p>Action: M&E to provide daylighting report with the results of the calculations once finalised. Ensure that the report covers all items for BREEM compliance (average daylight factor, uniformity, minimum point daylight factor, view of sky and room depth criterion as appropriate).</p>	M&E	-
View Out (5-6)	1	0	1	<p>Credit awarded where 95% of the floor area in 95% of spaces for each relevant building area (inc. workstations, close work areas or areas where a view out is deemed beneficial to occupants of the space) provides an adequate view out. E.g. if a project had 20 spaces in a relevant building area, 19 of these spaces would need to demonstrate that, independently, 95% of their floor area has an adequate view out.</p> <p>A window / opening area that is equal to, or greater than, 20% of the surrounding wall area would be considered an adequate view out for spaces with a room depth of less than 8m. Where the room depth is greater than 8m, compliance is only possible where the % of window/opening is ≥ the values in table 1.0 of BS 8206.</p>	0.78%	<p>It was agreed post meeting (12/03/20) that this credit should be identified as an optimum credit. Detailed arrangement of glazing is yet to be established.</p> <p>Post meeting note: To clarify, BREEM defines adequate View Out as follows: the view out must be a view of a landscape or buildings (rather than sky only) at seated eye level (1.2–1.3m) within the relevant building areas and should ideally be through an external window. A view into an internal courtyard will comply provided the distance from the opening to the back wall of the courtyard or atrium is at least 10m (therefore allowing enough distance for the eyes to refocus).</p> <p>Action: Arch to provide marked up drawings (floor plans, elevations and sections) demonstrating compliant view out in all spaces (desks within 8m of a window, window size at least 20% of the surrounding wall area calculated for each space and view out from seated eye level).</p>	Arch	-
Internal and External Lighting Levels, Zoning and Control (7-13)	1	1	1	<p>Credit awarded where all internal and external lighting is designed to provide illuminance levels appropriate to tasks undertaken, recommended by SLL Code for Lighting 2012, CIBSE LG 7 or other relevant industry standard for internal lighting, and BS 5489-1:2013 and BS EN 12464-2:2014 for external lighting.</p> <p>AND</p> <p>Lighting must be appropriately zoned and allow for occupant control. Areas used for teaching, seminar or lecture purposes must have controls specified in accordance with CIBSE LG5.</p>	0.78%	<p>It was agreed (meeting 12/02/20) that this would be targeted and appropriate lighting levels, zoning and controls would be included in the design. It was noted that this requires manual switching in all occupied spaces (including separate switches for each zone).</p> <p>Action: M&E to include clause in the specification (using Method standard clauses) and provide lighting layouts as supporting evidence.</p>	M&E	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Hea 02 Indoor air quality				To encourage and support healthy internal environments with good indoor air quality.				
Indoor Air Quality Plan (Pre-requisite) (1)	0	N	Y	Pre-requisite awarded where a site-specific indoor air quality plan is undertaken in line with GN06. The plan must consider the following: a) Removal of contaminant sources b) Dilution and control of contaminant sources (where present, consider air quality requirements of specialist areas such as labs) c) Procedures for pre-occupancy flush out d) Third party testing and analysis e) Maintaining good indoor air quality in-use.	0.00%	It was agreed post meeting (27/02/20) that this pre-requisite would be targeted. Method provided the Architects with a template Indoor Air Quality Plan to tailor to the needs of this specific project. Action: Arch to produce the IAQ plan (using Method template).	Arch	-
Ventilation (2)	1	0	0	Credit awarded where the building has been designed to minimise the concentration and recirculation of pollutants in the building by providing fresh air into the building in accordance with the relevant standards for ventilation. Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building using the Methodology outlined in the guidance (e.g. intake and exhaust location). Any HVAC systems must incorporate suitable filtration to minimise pollution, in line with BS EN 16798-3:2017. Filters should achieve supply air classification of at least SUP 2. Areas of the building subject to large and unpredictable/variable occupancy patterns need to have CO ₂ or air quality sensors specified and meet the detailed requirements relating to natural, mechanical or mixed mode ventilated spaces (refer to guidance for details). CIBSE AM10 compliance required for natural and mixed mode buildings.	0.78%	Credit not targeted. M&E advised (meeting 12/02/20) that relative location of intakes to potential sources of pollution (incl. car parks) likely to make credit unachievable.	-	-
Emissions from Construction Products (3-4)	2	1	1	One credit: 3 out of 5 product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 (refer to guidance for details). All wood-based products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum. Two credits: All of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.11. Product types are: Interior paints and coatings; Wood-based products (including wood flooring); Flooring materials (including floor levelling compounds and resin flooring); Ceiling, wall, and acoustic and thermal insulation materials; Interior adhesives and sealants (including flooring adhesives).	1.56%	It was agreed post meeting (27/02/20) that one credit would be targeted. It was noted that this requires careful specification and procurement to ensure that all products within the chosen categories comply. Contractor to specify and procure products in line with requirements. Note: For one credit: Where five product types are present, three must comply. Where four product types are present, three must comply (same as above). Where three product types are present, two must comply. Where two or fewer product types are present, one must comply. For 2 credits: All of the products that are specified need to comply. For example, if only four product types were specified then all of these would need to comply to achieve the second credit. Action: Arch to include compliant clause in the specification/ Indoor Air Quality Plan. Action: Contractor to ensure specifications refer to Indoor Air Quality Plan and include reference only to products compliant with the limits of the plan.	Arch/ Contractor	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Post-construction indoor air quality measurement (5-10)	1	0	0	Credit awarded where indoor formaldehyde concentration is measured post construction (but pre-occupancy) and does not exceed 100 µg/ m ³ averaged over 30 minutes (sampling and analysis to be performed in accordance with ISO 16000-2 & -3. AND The total volatile organic compound (TVOC) concentration does not exceed 500 µg/ m ³ over 8 hours (sampling and analysis performed in accordance with ISO 16000-5 and ISO 16000-6 or ISO 16017-1). Formaldehyde and TVOCs levels should be provided to the assessor. Where the limits above are exceeded, measures need to be undertaken in accordance with the IAQ plan to reduce the TVOC and formaldehyde levels to within the above limits.	0.78%	Credit not currently targeted. Requires pre-occupancy air quality testing and potentially re-testing if limits are exceeded. Given that tenants are likely to fit their own floor finishes (in certain instances) and introduce their own furniture, pre-occupancy testing is likely to serve minimal overall benefit.	-	-
Hea 04 Thermal comfort				To ensure the building is capable of providing an appropriate level of thermal comfort.				
Thermal Modelling (1-4)	1	1	1	Credit awarded when thermal modelling has been carried out using software in accordance with CIBSE AM11, and provides full dynamic thermal analysis. The modelling should show the building design and services strategy can deliver thermal comfort levels in occupied spaces as follows: a) In air-conditioned buildings: Summer and Winter operative temperatures in accordance with the CIBSE Guide A Table 1.5 or meet the Category B requirements for PPD, PMV and local discomfort from Table A.1 of Annex A of ISO 7730:2005. b) Naturally ventilated/free running buildings: Winter operative temperature ranges in accordance with CIBSE Guide A AND the building is designed to limit the risk of overheating in accordance with CIBSE TM52 or TM59. For air-conditioned buildings, the PMV and PPD indices should be provided.	0.78%	It was agreed (meeting 12/02/20) that this would be targeted. The relevant thermal modelling will be carried out to inform the design and check compliance. Note that modelling should confirm compliance in all occupied spaces in each building. Action: M&E to undertake thermal modelling in accordance with the relevant standards for the cooling strategy (i.e. free-cooling, via openable windows and passive stacks) and provide a report confirming the results.	M&E	-
Design for future thermal comfort (5-8)	1	0	1	Credit awarded where the first Hea 04 credit has been achieved, and the thermal modelling demonstrates that the building design and services strategy can deliver the same thermal comfort levels in occupied spaces under a projected climate change environment. Naturally ventilated buildings: Time period: 2050s; Emissions scenario: Medium (A1B); 50th percentile DSY 2 and DSY 3. Mechanically ventilated or mixed mode buildings: Time period: 2020s; Emissions scenario: High (A1F1); 50th percentile DSY 2 and DSY 3. Where thermal comfort criteria are not met for the projected climate change environment, the project team should demonstrate how the building has been adapted, or is adaptable in future using passive design solutions to achieve above criteria. For air-conditioned buildings, provide the PMV and PPD indices.	0.78%	Credit identified as optimum. It was agreed (12/02/20) that the potential to achieve this would be reviewed and modelling will cover simulations against a project future climate scenario. Action: M&E to undertake thermal modelling and provide a report confirming the results. If the results do not comply under the future climate scenario, provide a supporting statement in the report to demonstrate how the building could be adapted in future, using passive design measures, in order to comply (and demonstrate this via modelling results).	M&E	-
Thermal Zoning and Controls (9-11)	1	1	1	Credit awarded where the first Hea 04 credit has been achieved, and the thermal modelling analysis has informed the temperature control strategy for the building and its users. Refer to Technology Guide CTG065 Heating Control for examples. The strategy for proposed heating/cooling system(s) demonstrates that it has addressed the following: a. Zones within the building and how to effectively heat or cool these areas. b. The level of user control required, based on discussions with the end user. c. How systems will interact and how this may affect the building users. d. Whether a manual override is required for any automatic systems.	0.78%	It was agreed (meeting 12/02/20) that this would be achieved. Action: M&E to include the requirements in the design and ensure that the strategy is discussed and agreed with the end user end user (or alternatively building type specific design guidance, case studies, feedback). Provide a technical note describing the design process and demonstrating how this has complied with items a-d.	M&E	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Hea 05 Acoustic performance				To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.				
Acoustic Performance (1-2)	3	3	3	<p>Credits awarded where the contractor programmes in pre-completion acoustic testing, by a compliant test body to ensure the building areas meet the appropriate acoustic performance standards and testing requirements and the relevant standards are achieved (refer to guidance for further details).</p> <p>One credit: Sound Insulation -Achieve performance standards set out in Section 7 of BS 8233:2014.</p> <p>One credit: Internal Ambient Noise Levels - Achieve the standards in Section 7 of BS 8233:2014.</p> <p>One credit - Room Acoustics -Achieve the requirements relating to sound absorption and reverberation times, where applicable, set out in Section 7 of BS 8233:2014.</p> <p>Alternatively, a suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements related to the three principles defined above for all function areas in the building.</p>	2.33%	<p>It was agreed (meeting 12/02/20) that three credits would be targeted. It was noted that an acoustician has not yet been appointed so these credits will need to be reviewed in the next stage of design. It was noted that the Contractor will need to undertake pre-completion testing at the end of the project to demonstrate compliance.</p> <p>Action: Client to appoint Acoustician to undertake design reviews and advise on number of credits feasible.</p> <p>Action: Aco to review and confirm three credits are achievable. Provide the final acoustic design report confirming the number of credits achievable for the assessment.</p> <p>Action: Arch to confirm that the acoustician's recommendations will be included in the design to achieve three credits.</p> <p>Action: Contractor to provide a letter of commitment for pre-completion testing (using Method template).</p>	Client/ Aco / Arch Contractor	-
Hea 06 Security				To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.				
Security of Site and Building (1-3) RIBA STAGE 2 ACTION	1	0	0	<p>Credit awarded where a Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to RIBA Stage 2. The SQSS needs 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.</p> <p>The controls and recommendations will be incorporated into proposals and implemented in the as-built development. Any deviation from these recommendations need to be justified and agreed with the SQSS.</p>	0.78%	<p>Credit not targeted. It was agreed (12/02/20) that a security specialist would not be appointed prior to the close of RIBA Stage 2 to undertake a security needs assessment.</p>	-	-
Hea 07 Safe and healthy surroundings				To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.				
Safe Access (1-6)	1	0	0	<p>Credit awarded where the site is designed to allow for safe access for pedestrians and cyclists. Level of detail is comprehensive - refer to guidance for details. Points to consider include: cycle paths and footpaths connecting to any off site paths, paths connecting the building to the outdoor space and drop off areas to be located off/adjoining access road with direct access to footpath.</p> <p>Where delivery access areas and drop off areas exist: delivery areas are not directly accessed through general parking areas and do not cross or share pedestrian and cyclist routes and other outside amenity areas, provide a separate parking/waiting area for goods vehicles, ensure parking/turning areas are designed for simple manoeuvring.</p>	0.78%	<p>Credit not targeted. It was advised (12/02/20) that dedicated cycle and pedestrian paths are not included within the current design.</p>	-	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Outside space (7)	1	1	1	There is an outside space providing building users with an external amenity area. When determining the appropriate size of the outside space, the building type, function, shift patterns and occupancy numbers should be considered. The outside space must: a) be an outdoor landscaped area, for example a garden, balcony or terrace; the majority of the space should be open to the sky b) have appropriate seating areas and be non-smoking, c) be located to ensure it is accessible to all building users and avoids areas that will have disturbances from sources of noise (e.g. car parks, busy roads, delivery areas etc.).	0.78%	It was agreed (meeting 12/02/20) that this credit would be targeted. The architect advised that outdoor seating will be provided both within the internal courtyard area (although fairly close to some parking spaces) and within the western 'treed' area, with seating provided for approx. 20-25 people. Post-meeting note: The outdoor area assessed for this issue (either the 'treed' area or courtyard area) needs to be designated as a non-smoking area. Action: Arch to include requirements in the design and provide drawings to demonstrate full compliance of the outside space for the design stage assessment. Action: Client to confirm that the seating area will be designated as a non-smoking area.	Arch/ LA/ Client	-
Sub-Total	18	9	13					
Weighted Sub-Total	14	7.00	10.11	One health & wellbeing credit equals 0.78%				
ENERGY								
Ene 01 Reduction of energy use and carbon emissions				To minimise operational energy demand, primary energy consumption and CO₂ emissions.	Mandatory minimum requirements: 4 credits from Energy Performance for Excellent. 6 credits from Energy Performance and 4 from Energy Modelling and Reporting for Outstanding.			
Energy Performance (1)	9	4	6	Up to 9 credits can be awarded where there is an improvement in the building operational related CO ₂ emissions. The number of credits is based on the Energy Performance Ratio for New Constructions (using the BREEAM calculator). Note that negative improvement on notional figures will result in lower scores - aim to show improvement on each of the three parameters in the BRUKL (energy demand, primary energy, total CO ₂ emissions). FOUR CREDITS MANDATORY FOR EXCELLENT, SIX CREDITS MANDATORY FOR OUTSTANDING.	7.58%	Initial Part L modelling based on three sample units has been carried out assuming ASHPs for each unit and passive ventilation (28/02/20). Results indicate that 6 credits can be awarded in each case. However, BREEAM requires this issue to be assessed on a building by building basis, with the results of the worst performing building used to calculate the number of credits awarded. 6 credits are therefore identified as optimal and 4 credits targeted as a conservative estimate. Method has issued a technical query to the BRE to confirm whether BRUKL documents are to be produced per building or per unit. If the latter, it is anticipated that area weighted average values will need to be produced for each building based on individual unit results and these used to determine a score for each building, the worst of which is to be used to award credits. BRE response will be fed back to the project team once received. Action: M&E to undertake Part L modelling and provide BRUKL output documents and .inp files to Assessor. BRUKLS to include details of the accredited energy assessor. TBC if BRUKLs needed for each unit or each building.	M&E	-
Prediction of operational energy consumption (3-5)	4	0	0	Credits awarded where relevant members of the design team are involved in an energy design workshop focusing on operational energy performance, and additional energy modelling is undertaken during the design and post-construction stage to generate predicted operational energy consumption figures (refer to guidance not GN 32 for details). Predicted energy consumption targets are reported by end use, design assumptions and input data (with justifications). A risk assessment needs to be carried out highlighting any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.	3.37%	Credits not targeted. It was noted (12/02/20) that this would involve holding an operational energy workshop and modelling several design scenarios which could prove onerous and costly. Team advised no design workshop on operational energy performance is anticipated to be scheduled.	-	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Ene 02 Energy monitoring				To encourage the installation of energy sub-metering to facilitate the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.		Mandatory minimum requirements: One credit (sub-metering of end-use categories) for Very Good, Excellent and Outstanding.		
Sub-metering of end-use categories (1-3)	1	1	1	<p>MANDATORY FOR VERY GOOD AND ABOVE: Credit awarded where energy metering systems are installed that enable 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems. This includes the following: space heating; domestic hot water; humidification; cooling; ventilation; pumps; lighting; small power; renewable or low carbon systems (separately); controls; and other major energy-consuming systems/plant (e.g. lifts, cold storage, pools, kitchen plant, drama studio rigs etc.).</p> <p>The energy consuming systems in buildings with a total useful floor area >1000m² are metered using an appropriate energy monitoring and management system. For smaller buildings, separate accessible sub-meters with pulsed outputs are acceptable.</p> <p>The energy consuming end uses should be identifiable to the building user, for example through labelling or data outputs.</p>	0.84%	<p>It was agreed (meeting 12/02/20) that this would be targeted as its achievement is mandatory for a Very Good rating.</p> <p>Post Meeting Note 1: BREEM states that for all buildings with a floor area >1000m², energy consumption must be metered by end use category with an appropriate energy monitoring and management system (BMS or other automatic meter reading and data management system).</p> <p>Post meeting note 2: Where self-contained units have their own individual energy supply and utility meter (e.g. water, gas or electricity), this supply can be excluded from the scope of the issue. All shared energy supplies and common areas under the responsibility of building management must still be included in the assessment. (KBCN 000071)</p> <p>Action: M&E to include compliant clause in the specification (using Method standard clauses). Include requirements in the design and provide metering schematics/marked up drawings as supporting evidence. Complete the Ene 02 Submission Note to identify all systems present and metering arrangements. Where systems are not metered, provide a suitable justification for the evidence.</p>	M&E	-
Sub-metering of High Energy Load and Tenancy Areas (5)	1	1	1	<p>Credit awarded where an accessible energy monitoring and management system or separate accessible energy sub-meters with pulsed outputs or other protocol communication outputs which enable future connection to an energy monitoring and management system are provided, covering a significant majority of the energy supply to all relevant function areas or departments within the building/unit:</p> <ol style="list-style-type: none"> Offices areas (by floor plate) Catering areas 	0.84%	<p>It was agreed (meeting 12/02/20) that this would be targeted. It was noted that the areas requiring metering should be reviewed carefully to ensure the design complies.</p> <p>Action: M&E to review areas in the building and liaise with Assessor to agree suitable metering strategy. Provide a covering note detailing the metering strategy and supporting metering schematics for the evidence. If any areas are not sub-metered, provide a suitable justification for the evidence.</p>	M&E	-
Ene 03 External lighting				To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.				
External Lighting (1-2)	1	1	1	<p>Credit awarded where the average luminaire efficacy of the external light fittings within the construction zone is not less than 70 luminaire lumens per circuit Watt.</p> <p>AND</p> <p>All external light fittings are automatically controlled to prevent daytime operation and have presence detection in areas of intermittent use. Intermittent pedestrian traffic is where a pedestrian is in or approaching the space less than two-thirds of the time during the period when the lighting, without presence detection, would be switched on.</p>	0.84%	<p>It was agreed (meeting 12/02/20) that this would be targeted. It was highlighted that areas with intermittent use would require lighting with PIR detection.</p> <p>Action: M&E to include compliant clause in the specification (using Method standard clauses). Provide lighting layouts as supporting evidence confirming compliant control (timelock, photocell and, in areas of intermittent pedestrian traffic, PIR).</p>	M&E	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Ene 04 Low carbon design				To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.				
Passive Design (Passive Design Analysis) (1-4) RIBA STAGE 2 ACTION	1	1	1	Credit awarded where the first Hea 04 credit has been achieved and a building services engineer who is a member of CIBSE or an energy assessor conducts an analysis of the proposed building design (during Concept Design) to identify opportunities to implement passive design solutions. AND Passive design measures are implemented to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings, and the reduced energy demand and CO ₂ emissions are quantified.	0.84%	It was agreed (meeting 12/02/20) that this would be targeted and the passive design analysis will be undertaken before the close of RIBA Stage 2. Analysis must cover all minimum content requirements as per methodology for this issue. The project is aiming to include passive design measures (including free cooling) so the team were confident there would be a quantifiable reduction in energy demand and CO ₂ emissions. Post meeting note: Method has issued a technical query to the BRE to confirm whether BRUKL documents are to be produced per building or per unit. BRE response will be fed back to the project team once received. Action: M&E to produce the passive design analysis report before close of RIBA Stage 2 and provide a copy for the evidence. Provide supporting calculations (and BRUKL output docs with and without passive design measures) demonstrating a reduction in energy demand as a result of the measures specified.	M&E	RIBA Stage 2
Passive Design (Free Cooling) (5-8) RIBA STAGE 2 ACTION	1	1	1	Credit awarded where the first Ene 04 credit is achieved, and the passive design analysis includes an analysis of free cooling solutions and the feasibility of implementing them. AND The building is naturally ventilated or uses any combination of the free cooling strategies e.g.: night-time cooling, ground coupled air cooling, displacement ventilation (not linked to any active cooling), ground water cooling, surface water cooling, evaporative cooling, desiccant dehumidification and evaporative cooling using waste heat, and absorption cooling using waste heat.	0.84%	It was agreed (meeting 12/02/20) that this would be targeted and the free cooling appraisal would be included in the passive design analysis. The intention is for all buildings to be naturally ventilated throughout so the team were confident that the notional energy consumption of the building would be reduced. Action: M&E to include section in the passive design analysis relating to opportunities for free cooling strategies and provide a copy for the evidence. Provide supporting calculations demonstrating a reduction in energy consumption as a result of the measures specified.	M&E	RIBA Stage 2
Low and Zero Carbon Technologies (LZC Feasibility Study) (9-12) RIBA STAGE 2 ACTION	1	1	1	Credit awarded where an energy specialist completes a feasibility study by the end of RIBA Stage 2 to establish the most appropriate recognised local (on-site or near-site) LZC energy sources for the development based on the feasibility study. A local LZC energy technology/technologies must be specified for the building/development in line with the recommendations of this feasibility study and the resulting reduced regulated carbon dioxide (CO ₂) emissions need to be quantified.	0.84%	It was agreed (meeting 12/02/20) that this would be achieved and the LZC feasibility study would be carried out before the end of Stage 2. The current proposal is to use ASHP and the team were confident that the specification would achieve a quantifiable reduction in CO ₂ emissions. Analysis must cover all minimum content requirements as per methodology for this issue Draft M&E Services Appraisal report produced by BJP to be updated post-planning in line with BREEM requirements, ensuring all required content is presented. Post meeting note: Method has issued a technical query to the BRE to confirm whether BRUKL documents are to be produced per building or per unit. BRE response will be fed back to the project team once received. Action: M&E to produce compliant LZC feasibility study (including all sections for BREEM) and provide a copy for the evidence. Provide BRUKL Output Documents with and without the e.g. PV demonstrating the reduction in CO₂ as a result of the specification.	M&E	RIBA Stage 2/ 3

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Ene 08 Energy efficient equipment				To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation.				
Energy Efficient Equipment (1-3)	0	0	0	<p>Credit awarded where the building's unregulated energy consuming loads are identified and their contribution to the total annual unregulated energy consumption of the building is estimated, assuming a typical/standard specification.</p> <p>Identify which of the following systems/process that will be responsible for a significant proportion of total annual unregulated energy consumption of the building and demonstrate a meaningful reduction in energy consumption.</p> <p>Small-power equipment; Swimming pool; Laundry facilities with commercial-sized appliances; Data centres incl server rooms; IT-intensive operating areas; Domestic-scale appliances (individual and communal facilities); Healthcare; Kitchen and catering facilities.</p> <p>If there are no systems/processes from the above list then this is not applicable.</p>	0.00%	<p>Criteria not applicable as Client advised that no equipment with unregulated energy loads would be supplied as part of the standard fit-out out works, although in some cases, an enhanced fit-out package might be offered to certain tenants prior to letting, in which case domestic scale white goods (e.g. fridge/ freezers) and potentially small-power equipment may become relevant. It was advised that The Hub would not be used for on-site catering.</p> <p>Post Meeting Note: The formal assessment will assess all units under the standard fit-out scope. Site inspection should take place prior to any unit receiving enhanced fit-out.</p>	-	-
Sub-Total	19	10	12	One energy credit equals 0.84%				
Weighted Sub-Total	16	8.42	10.11					
TRANSPORT								
Tra 01 Transport assessment and travel plan				To reward awareness of existing local transport and identify improvements to make it more sustainable.				
Travel Plan (1-5) RIBA STAGE 2 ACTION	2	2	2	<p>Credit awarded where a site-specific transport assessment/statement and draft travel plan are developed at the Concept stage. The assessment must cover:</p> <p>a) Travel patterns and attitudes of existing users towards cycling, walking and public transport;</p> <p>b) Predicted travel patterns and transport impact of future users;</p> <p>c) Current local environment for pedestrians and cyclists (accounting for any age-related requirements of occupants and visitors);</p> <p>d) Reporting of the number and type of existing amenities within 500m of the site;</p> <p>e) Disabled access (accounting for varying levels and types of disability and visual impairment);</p> <p>f) Calculation of the existing public transport Accessibility Index (AI) (refer to 'methodology' in BREEAM manual for further details);</p> <p>g) Current facilities for cyclists.</p> <p>A travel plan should be developed to include proposals to increase or improve sustainable modes of transport and movement of people and goods. If the occupier is known, they should be involved in the development of the travel plan and it should be confirmed that the plan will be implemented and supported by the building's management in operation.</p>	1.67%	<p>It was agreed (meeting 12/02/20) this credit would be targeted. A transport statement and framework travel plan have been produced by Mode Transport Planning. Together, these documents generally cover the requirements of this issue, but could be updated in the next stage of design to address, for example, existing and proposed cyclist facilities, and include calculations and public transport timetables to show how the AI was calculated.</p>	Method / Transport consultant	RIBA Stage 2
Tra 02 Sustainable transport measures				To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.				
Pre-requisite (1)	0	Y	Y	Achieve criteria 3-5 for the Tra 01 credits above (i.e. achieve the travel plan criteria).	0%	See Tra 01 above.	-	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Transport options implementation (2-3)	10	3	3	<p>Identify and implement sustainable public, private and active transport measures from Table 7.4 of the BREEAM guidance to earn points. Examples of some of these measures include:</p> <ul style="list-style-type: none"> - Divert a bus route to the development or introduce a new or enhanced bus stop (3 points); - Provide electric recharging stations (1 point); - Set up a car sharing group/facility and provide priority parking spaces for car sharers (1 point); - Provide compliant cycle storage spaces (1 per 10 staff) and cyclist facilities (refer to guidance for further details) (1-2 points); - Demonstrate at least three existing amenities are present (refer to guidance for further details) (1 point). <p>Up to 10 credits can be awarded based on the number of points earned - number of points required is affected by the existing Accessible Index (AI) of the project as follows:</p> <ul style="list-style-type: none"> • AI < 25: 10 points are needed to gain 10 credits • 25 ≤ AI < 40: 8 points are needed to gain 10 credits • AI of ≥ 40: 6 points are needed to gain 10 credits 	8.33%	<p>It was agreed (meeting 12/02/20) that 3 credits would be targeted based on current recommendations included within the Travel Plan. Accessibility Index has been confirmed as <1 so 3 points are needed for 3 credits which could be achieved as follows:</p> <ul style="list-style-type: none"> - Electric vehicle charging points for 10% of spaces - 1 point - Compliant cycle storage - 1 point - Shower and locker and/or changing room facilities - 1 point - 3 local amenities - 1 point **** (no longer targeted) <p>Post-Meeting Note: The assessor confirms that while three local amenities (as recognised by BREEAM - School) do exist within 500m of the site, the walking route to these does not appear 'safe'. Existing footway provision begins approximately 310-metres south from the site. It is not anticipated that the footway will be extended as part of the proposed scope of works. In addition, BRE has confirmed a sandwich/ burger van on the premises will not be accepted as a local amenity (food outlet), even if semi-permanent.</p> <p>Action for each point are as follows: Electric charging points: - Action: M&E to include a compliant clause in the specification (using Method standard clauses). Provide drawings showing charging point provision for at least 10% of the total car parking capacity for the development.</p> <p>Cycle storage: - Action: Arch to confirm the maximum number of building occupants that will be present in the building/s at any one time. - Action: Arch to provide a drawing showing the number of cycle storage spaces specified (1 per 10 building occupants, note: sliding scale can be used where over 200 occupants), the covering, setting (i.e. into hardstanding) and distance from building entrance. - Action: M&E to include compliant clause in the specification (using Method standard clauses) for cycle storage lighting.</p> <p>Cycle facilities: Action: Arch to provide a drawing showing the cyclist facilities specified. Include details required to demonstrate compliance e.g. show that lockers are of adequate size for storage of cyclists' equipment, and changing area (if provided) has benches or hooks. Note the number of showers required is 1 per 10 cycle stands. The number of lockers is 1 per cycle stand.</p>	Arch/ M&E/ Client	-
Sub-Total	12	5	5	One transport credit equals 0.83%				
Weighted Sub-Total	10	4.17	4.17					

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
WATER								
Wat 01 Water consumption				To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.		Mandatory minimum requirement: One credit for Good, Very Good and Excellent. Two credits for Outstanding.		
Water consumption (1-5)	5	3	3	<p>Up to five credits awarded depending on the efficiency of the specified water consuming components compared to a baseline. This includes the following components where specified, and the figures noted are standard level 3 options: WCs 3.75l, urinals 1.5l, taps (wash hand basins 5l/min, kitchen taps 6l/min, pre-rinse nozzles 7.3l, waste disposal 0 l/min), showers 6l/min, baths 140l, dishwashers and washing machines (domestic/commercial/industrial sized - various figures).</p> <p>Greywater and/or rainwater systems can help offset the potable water consumption where these are used to supply water consuming components - please refer to the technical guidance.</p> <p>ONE CREDIT MANDATORY FOR GOOD AND ABOVE. TWO CREDITS MANDATORY FOR OUTSTANDING.</p>	3.89%	<p>It was agreed (meeting 12/02/20) that three credits would be targeted. It was noted that no rainwater/greywater harvesting to offset potable water consumption of WCs will be specified. It was agreed that the specification would be checked prior to procurement to ensure these credits can be achieved.</p> <p>Note: Doc M sanitaryware must also be included in the calculations for Wat 01.</p> <p>Action: Arch/M&E to liaise and agree the specification. Forward details to the Assessor for review prior to ordering. Provide a completed copy of the Wat 01 table and supporting specifications and manufacturers' details for the design stage assessment.</p>	Arch/M&E	-
Wat 02 Water monitoring				To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.		Mandatory minimum requirement: Criterion 1 (water meter on mains supply) for Good, Very Good, Excellent and Outstanding.		
Pre-requisite (1)	0	Y	Y	MANDATORY FOR GOOD AND ABOVE - A water meter is specified on the mains water supply to each building, including where water is supplied via a borehole or other private source.	0.00%	It was agreed (meeting 12/02/20) that this would be targeted. Note that the credit requires each meter and sub-meter specified to have a pulsed output AND be connected or enable future connection to an "appropriate utility monitoring and management system" such as a BMS or other automatic meter reading and data management system.		
Water Monitoring (1-6)	1	1	1	<p>Credit awarded where water consuming plant or areas, consuming 10% or more of the buildings total water demand, should be fitted with easily accessible sub meters or have water monitoring equipment integral to the plant or area.</p> <p>Each main and sub meter should have a pulsed output or other open protocol communication output enabling connection to a Building Management System (BMS) for monitoring consumption.</p> <p>If present, swimming pools, changing rooms, aquariums, large water tanks and laboratories need to be sub-metered irrespective of their water consumption.</p>	0.78%	<p>Post meeting note: Where self-contained units have their own individual energy supply and utility meter, this supply can be excluded from the scope of the issue. All shared energy supplies and common areas under the responsibility of building management are still included in the assessment. (KBCN0199)</p> <p>Action: M&E to include compliant clause in the specification (using Method standard clauses). Review the areas present in the building and determine if any further sub-metering is required. Provide drawings for the design stage assessment showing all meters.</p>	M&E	-
Wat 03 Water leak detection				To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.				
Leak Detection System (1-2)	1	0	0	<p>Credit awarded where a leak detection system, capable of detecting a major leak on the mains supply within the building and between the building and the utilities water meter, is installed.</p> <p>It must be a permanent automated water leak detection system capable of alerting occupants to a leak OR an in-built automated diagnostic procedure for detecting leaks.</p> <p>It must be programmable by the occupier, avoid false alarms and be capable of identifying different flow/leakage rates. Activation should occur when flow through the meter is at a rate above a pre-set maximum over a pre-set period of time.</p>	0.78%	Credit not targeted. M&E advised the credit would be too difficult to achieve without the specification of a BMS.	-	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Flow Control Devices (3)	1	1	1	Credit awarded where flow control devices that regulate the supply of water to each WC area and sanitary facility according to demand are installed (and therefore minimise water leaks and wastage from sanitary fittings). This applies to the cold water supply to taps, WCs and urinals. An example of a flow control device is a presence detector and controller (i.e. PIR linked to a solenoid valve).	0.78%	It was agreed (meeting 12/02/20) that this would be targeted. Note: WC areas or facilities refer to the cold water supply to taps, WCs and urinals. The water supply system must not allow the cold water to automatically switch off in the showers while the hot water is still running to avoid scalding from hot water. Action: M&E to include compliant clause in the specification (using Method standard clauses). Provide drawings showing the solenoid valves to all WC and shower areas (WCs, WHB taps and showers within these areas).	M&E	-
Wat 04 Water efficient equipment				To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.				
Water Efficient Equipment (1-2)	1	1	1	Credit awarded where the project team identify the building's unregulated water demands that could be realistically mitigated or reduced (e.g. for irrigation, vehicle wash plant/equipment, swimming pools, project specific industrial processes, water filtration and treatment, cooling towers and humidification). The project team should then identify the system(s) or processes to reduce the unregulated water demand of the development and its operation, and demonstrate through either good practice design or specification a meaningful reduction in the total water demand of the building.	0.78%	It was agreed (meeting 12/02/20) that this would be targeted. It was agreed that the only unregulated water use will be irrigation for planting and that all planting will rely solely on precipitation and/or rainwater collected from an external water butt. Post meeting note: Planning drawings show water butts on drawings for use of irrigation (irrigation water to be drawn off by hand, not connected to sprinkler system). Architect advised (27/02/20) there will be 10no. butts to provide combined total of 3,500L. Action: Arch/ LA to include a note on drawings that all planting will rely solely on precipitation/ watering via rain water butt. Provide copies for the evidence.	Arch/ LA	-
Sub-Total	9	6	6	One water credit equals 0.78%				
Weighted Sub-Total	7	4.67	4.67					
MATERIALS								
Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)				To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.				
Superstructure (Comparison with the BREEAM benchmark and Option appraisal during Concept / Technical Design) (1-5) RIBA STAGE 2 ACTION	6	2	3	Up to six credits are awarded where opportunities for reducing environmental impacts of materials have been identified via options appraisals of the proposed superstructure design at Concept Stage and Technical Design. At Concept Stage, carry out a Life Cycle Assessment (LCA) options appraisal of 2 to 4 significantly different superstructure design options, using an LCA tool recognised by BREEAM. Note: the design options should fulfil the function requirements specified by the client and all statutory requirements. Demonstrate how the appraisal has been used to inform the design and present the results in an options appraisal summary document. Results need to be submitted to BRE at the end of Concept Design. This will include comparison with the BREEAM benchmark. At Technical Design, carry out an LCA options appraisal of 2 to 3 significantly different superstructure design options, based on the selected Concept Design option. Update the summary document from Concept Design, if one is available. Record and submit results via the submission tool. This will include comparison with the BREEAM benchmark. Note: the Technical Design credits can be achieved independently of the Concept Design. Credits are awarded based on the number of options included in the appraisal and the performance against the benchmark.	6.43%	It was agreed (26/02/20) that the BRE's Simplified Tool would be used to undertake a whole building Life Cycle Assessment (LCA) and options appraisal pre-planning and IMPACT compliant software (eTool) would be used to undertake a full LCA and options appraisal at technical design stage (Stage 4). To optimise credits, the maximum number of options will be appraised at both stages. This should enable a minimum of two credits (potentially three, depending on the performance of the chosen design option in relation to the benchmarks) to be awarded. Action: Appointed LCA consultant (Method) to liaise with the Arch/ Contractor to determine materials and alternative options to be modelled so that the modelling can usefully inform the design at Concept and Technical Design. Action: LCA Consultant/ Method to provide a copy of the LCA report and options appraisal summary document with results output files before the end of concept design, and again at technical design.	Method/ LCA consultant/ Arch/ Client	RIBA Stage 2 (Pre-planning submission)

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Substructure and hard landscaping options appraisal during Concept Design (6-7) RIBA STAGE 2 ACTION	1	0	0	<p>One credit awarded where criterion 4 for the superstructure concept design (see above) has been achieved AND opportunities for reducing environmental impacts of materials have been identified via an options appraisal of the proposed substructure and hard landscaping design at Concept Stage.</p> <p>The LCA options appraisal must include a combined total of at least 6 significantly different substructure or hard landscaping design options (at least two shall be substructure and at least two shall be hard landscaping). Note: the design options should fulfil the function requirements specified by the client and all statutory requirements.</p> <p>Demonstrate how the appraisal has been used to inform the design and present the results in an options appraisal summary document. Results need to be submitted to BRE at the end of Concept Design.</p>	1.07%	It was agreed (26/02/20) that this credit would not be targeted. The design team has opted to use the simplified tool to assess the superstructure only at pre-planning stage. An assessment of hard landscaping and substructure options requires the use of IMPACT compliant software (e.g. eTool).	-	-
Mat 02 Environmental impacts from construction products – EPDs				To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.				
Specification of products with a recognised Environmental Product Declaration (EPD) (1-2)	1	0	0	<p>Credit awarded for an EPD points score of ≥20. Construction products to be specified with EPDs (please refer to guidance for Methodology).</p> <p>Details of each EPD are inputted into the Mat 01/02 Results Submission Tool, including the material category classification. The Mat 01/02 Results Submission Tool will verify the EPD points score and award credits accordingly.</p>	1.07%	Credit not targeted as it can be challenging to procure a sufficient number of products with EPDs to achieve credit and this also has the potential to limit material/ product choices.	-	-
Mat 03 Responsible sourcing of construction products				To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.				
Pre-requisite (1)	0	Y	Y	<p>MANDATORY FOR ALL RATINGS: Pre-requisite - 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) - records of materials and certificates required to prove this.</p>	0.00%	<p>It was agreed (meeting 12/02/20) that this would be targeted.</p> <p>Action: Contractor to provide a letter of commitment (using Method template).</p>	Contractor	-
Enabling sustainable procurement (2) RIBA STAGE 2 ACTION	1	1	1	<p>Credit awarded where a sustainable procurement plan is used by the design team to guide specification towards sustainable construction products. The plan must:</p> <p>a) Be in place before Concept Design. b) Include sustainability aims, objectives and strategic targets to guide procurement activities. c) Include a requirement for assessing the potential to procure construction products locally and there must be a policy to procure construction products locally where possible. d) Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan.</p> <p>If the plan is applied to several sites or adopted at an organisational level it must identify the opportunities and risks of procurement against a broad range of social, environmental and economic issues following BS ISO 20400:2017.</p>	1.07%	<p>It was agreed (meeting 12/02/20) that this would be targeted. The Sustainable Procurement Plan (SPP) has to be in place before the end of Stage 2. Method has issued a draft template SPP to the contractor which could be used as starting point if the contractor does not already have one in place.</p> <p>Action: Contractor to produce the Sustainable Procurement Plan before the end of RIBA Stage 2.</p>	Contractor	RIBA Stage 2

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Measuring responsible sourcing (3)	3	1	1	<p>Up to 3 credits can be awarded where construction products procured or specified are responsibly sourced. Responsible sourcing accreditations include PEFC, FSC, ISO 14001 and BES 6001 (Refer to GN18 for others). Applicable materials categories include: Timber/timber-based products; concrete/cementitious; metal; stone/aggregate; clay-based; gypsum; glass; plastic, polymer, resin, paint, chemicals and bituminous; animal fibre/skin, cellulose fibre; other.</p> <p>Each product is entered into the Mat 03 Calculator using either Route 1 or 2 (refer to methodology in guidance) and credits awarded accordingly. Credits are awarded in proportion to the scope of the assessment.</p> <p>1 credit where ≥ 10% of available points are achieved (2 credits for ≥ 20%, and 3 credits for ≥ 30%).</p>	3.21%	<p>It was agreed (meeting 12/02/20) that one credit would be targeted. It was noted that BES 6001 certification performs better than ISO 14001 so products should be procured from manufacturers with this certification where possible.</p> <p>Action: Arch to complete first stage of the Mat 03 table (using Method's pro-forma) to identify the materials that will be present in the building.</p> <p>Action: Contractor to complete second stage of the Mat 03 table to identify product name and manufacturer and the products' responsible sourcing certification. Provide a completed copy of the Mat 03 table with supporting certificates for the assessment.</p>	Arch/ Contractor	-
Mat 05 Designing for durability and resilience				To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.				
Designing for Durability and Resilience (1-4)	1	1	1	<p>Credit awarded where the following is demonstrated:</p> <p>Part One: Protection is given to vulnerable parts of the building and landscaping against accidental or malicious damage (both internal and external), including areas exposed to high pedestrian traffic, vehicular and trolley movements.</p> <p>Part Two: Protection is given to exposed parts of the building against material degradation due to environmental factors. Each element or product needs to achieve an appropriate quality or durability standard (e.g. BS 7543:2015 - see guidance for other appropriate standards) OR a detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors is required.</p> <p>The roof and façade also need to be designed for cost-effective cleaning, replacement and repair and to prevent water damage, ingress and detrimental ponding.</p> <p>Please refer to the technical guidance for further details of the methodology to follow.</p>	1.07%	<p>It was agreed (meeting 12/02/20) that this would be targeted. It was agreed that a review of the vulnerable areas should be undertaken to ensure the design complies.</p> <p>Action: Arch to review potentially vulnerable parts of the building and provide a marked up drawing showing these. Complete the Mat 05 checklist to identify the durability and resilience measures specified in line with the required standards and provide supporting drawings/specifications.</p>	Arch	-
Mat 06 Material efficiency				To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.				
Material Efficiency (1-3) RIBA STAGE 1 ACTION	1	0	0	<p>Credit awarded where at the Preparation and Brief and Concept Design stages, the team sets targets and reports on opportunities and methods to optimise the use of materials. These must be done for each of the following stages: Preparation and Brief, Concept Design, Developed Design, Technical Design and Construction.</p> <p>In addition, the implementation of material efficiency must be developed and recorded during: Developed Design, Technical Design and Construction stages. Targets and actual material efficiencies achieved also need to be reported.</p>	1.07%	<p>It was agreed (meeting 12/02/20) that this would not be targeted, as it is an onerous piece of work, requiring documentation to be produced at each stage of the project, including RIBA Stage 1, as well as a workshop dedicated to materials optimisation at RIBA Stage 2.</p>	-	-
Sub-Total	14	5	6	One materials credit equals 1.07%				
Weighted Sub-Total	15	5.36	6.43					

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
WASTE								
Wst 01 Construction waste management				To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.		Mandatory minimum requirement: One credit for Outstanding.		
Pre-demolition audit (1-3) RIBA STAGE 2 ACTION	1	1	1	<p>Credit awarded where a pre-demolition audit is completed for any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment, reuse or recycling is feasible and to set targets for waste management and maximise the recovery of material.</p> <p>The audit must be carried out at RIBA Stage 2 by a competent person prior to strip-out or demolition works and be referenced in the resource management plan (RMP). It must compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets.</p>	0.55%	<p>It was agreed (meeting 12/02/20) that this credit would be targeted. It was noted that as demolition will form part of the project, a pre-demolition audit will be required as soon as possible.</p> <p>Where the demolition audit has not been done at RIBA stage 2, the credit can still be achieved. Robust evidence must be provided confirming that the late timing of the audit has not compromised its ability to influence the design, consideration of materials re-use and the setting of targets for waste management. Evidence must demonstrate that this allowed decisions to be made before the start of strip-out/demolition works.</p> <p>Action: Demo Contractor to undertake the pre-demolition audit and provide a copy to Method for review before the end of RIBA Stage 2.</p>	Demo Contractor	RIBA Stage 2/ or before any work on site
Construction Resource Efficiency (4-5)	3	1	1	<p>Up to three credits awarded where a Resource Management Plan (RMP) / Site Waste Management Plan (SWMP) has been developed covering the non-hazardous waste related to onsite construction and dedicated offsite manufacture or fabrication (including demolition and excavation waste) generated by the building's design and construction. Where construction waste related to on-site construction and off-site manufacture/fabrication (excluding demolition and excavation waste) meets or is lower than the benchmarks as follows (per 100m² GIFA): One credit = 13.3m³ / 11.1 tonnes, Two credits = 7.5m³ / 6.5 tonnes, Three credits = 3.4m³ / 3.2 tonnes.</p> <p>Accurate data records on waste arisings and waste management routes must also be provided.</p> <p>ONE CREDIT MANDATORY FOR OUTSTANDING.</p>	1.64%	<p>It was agreed (meeting 12/02/20) that one credit would be targeted. This is equivalent to 13.3m³ / 11.1 tonnes of construction waste per 100m². It is advised that the target benchmark for waste is reviewed in relation to the predicted construction waste quantities to ensure this is achievable.</p> <p>Action: Contractor to provide a letter of commitment (using Method template).</p> <p>Action: Contractor to provide a draft copy of the SWMP, including the target for resource efficiency to Method for review.</p>	Contractor	-
Diversion of Resources from Landfill (6-7)	1	1	1	<p>One credit awarded where 70% by volume /80% by tonnage of non-hazardous construction waste and 80% by volume/ 90% by tonnage of non-hazardous demolition waste generated by the development will be diverted from landfill and reused or recycled.</p> <p>Materials should be sorted into separate key waste groups, according to the waste streams generated by the scope of the works, either on or off-site.</p>	0.55%	<p>It was agreed (meeting 12/02/20) that this would be targeted.</p> <p>Action: Contractor to provide a letter of commitment (using Method template). Provide a draft copy of the SWMP, including the target for diversion from landfill to Method for review.</p>	Contractor	-
Wst 02 Use of recycled and sustainably sourced aggregates				To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.				
Pre-requisite (1)	0	Y	Y	Where demolition occurs on site a pre-demolition audit needs to be completed for any existing buildings, structures or hard surfaces, in accordance with Wst 01.	0.00%	See above for Wst 01 Pre-demolition audit.	Demo Contractor	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Project Sustainable Aggregate Points (2-6)	1	0	1	Credit awarded where all aggregate types and uses for the project are identified (refer to guidance for different types and uses). The quantity (in tonnes), source region and distance travelled also needs to be determined for each aggregate type/use. This is inputted into the Wst 02 calculator to generate points and number of credits earned. 3.5-6 points are needed to gain 1 credit.	0.55%	It was agreed (meeting 12/02/20) that this would be included in the optimum column, pending review by SE. SE advised that the concrete sub-bases of the existing buildings could potentially be re-used either in-situ or as aggregate for the proposed buildings, and the remaining aggregate requirements could largely be satisfied by recycled aggregate provided by a local supplier. Action: SE/ Contractor to review the requirements and confirm this is achievable. Provide a completed copy of the Wst 02 calculator tool to confirm the quantities and sources of recycled/secondary aggregate specified. Provide supporting evidence where possible.	SE/ Contractor	-
Wst 03 Operational waste				To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	Mandatory minimum requirement: One credit for Excellent and Outstanding.			
Operational Waste (1-2)	1	1	1	MANDATORY FOR EXCELLENT AND ABOVE: Credit awarded where there is dedicated space(s) to cater for the segregation and storage of operational recyclable waste generated by the assessed units. The space must be clearly labelled, accessible and of a capacity appropriate to the building type, size, number of units and predicted volumes of waste. Where the building occupier is not known, a default size of 2m ² per 1000m ² GIFA, with an additional 2m ² per 1000m ² where there is catering (subject to a maximum size of 20m ²) can be used to size the recycling storage area. General waste provision is in addition. Where appropriate, the following facilities are provided as part of its waste management strategy: a) Static waste compactor(s) or baler(s); b) Vessel(s) for composting suitable organic waste OR adequate space(s) for storing segregated food waste and compostable organic material prior to collection and delivery to an alternative composting facility; c) A water outlet where compostable food waste and organic material will be stored.	0.55%	It was agreed (meeting 12/02/20) that this would be achieved. It was noted that BRE recommends 2m ² per 1000m ² GIFA is provided for recyclable waste alone (unless other justification is provided for the area allocated). Confirmation of the predicted waste types and volumes will be required from the Client to inform the waste store design (area, labelling, requirement for compactor/ baler). Architect advised (27/02/20) that planning drawings indicate 25m ² allocated to waste storage, separated into 2no. enclosures. Action: Client to provide details of their predicted waste types and volumes to the team to inform the waste store design. Action: Arch to include requirements in the design and provide evidence to demonstrate compliant waste storage provision, including the area for recyclables, labelling and accessibility. Include an area for organic waste storage/compactor/baler as required based on the predicted waste types. Action: If organic waste storage is required, M&E to provide a drawing showing the water outlet in the bin store for wash down.	Arch/Client/M&E	-
Wst 04		Speculative finishes		To minimise the wastage associated with the installation of floor and ceiling finishes in lettable areas in speculative buildings where tenants have not been involved in their selection.				
Speculative Floor and Ceiling Finishes (1-2)	1	1	1	Credit awarded where: 1 For tenanted areas, where the future occupant is not known and carpets or other floor or ceiling finishes are installed, these must be limited to a show area only. 2 Only install floor and ceiling finishes selected by the known occupant of a development. Alternatively, where only ceiling finishes and no carpets are installed, the building owner confirms that the first tenants will not be permitted to make substantial alterations to the ceiling finishes.	0.55%	It was agreed (meeting 12/02/20) that this would be targeted. Where future occupants are not known, floor finishes will not be installed. If ceiling finishes are installed as part of the works, tenants will be required to keep these finishes as part of a contractual agreement in order to reduce wasted materials. Where future occupants are known, floor and ceiling finishes may both be installed provided these have been selected by the known occupant (as part of an enhanced fit-out package agreed to by the tenant). Action: Client to provide letter confirming commitment to comply with the criteria. Action: Where ceiling finishes are provided, Client to include a contractual requirement to prevent first tenants from making substantial alterations to the ceiling finishes installed.	Client	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Wst 05 Adaptation to climate change				To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.				
Resilience of structure, fabric, building services and renewables installation (1-3) RIBA STAGE 2 ACTION	1	0	0	Credit awarded where a climate change adaptation strategy appraisal is conducted using a systematic risk assessment which identifies the impact of extreme weather conditions arising from climate change on the building over its projected life cycle. This needs to cover installation of building services and renewable systems, as well as structural and fabric resilience aspects and include: <ul style="list-style-type: none"> Hazard identification and assessment Risk estimation, evaluation and management. Recommendations or solutions based on strategy appraisal also needs to be developed before or during Concept Design, that aim to mitigate the identified impact and an update during Technical Design needs to be provided demonstrating how the recommendations or solutions have been implemented.	0.55%	It was agreed (meeting 12/02/20) that this would not be targeted. This requires a substantial piece of work to be undertaken before the close of Stage 2, and is already partly addressed through the requirements of Mat 05 and Pol 03.	-	-
Wst 06 Design for disassembly and adaptability				To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.				
Design for disassembly and functional adaptability - recommendations (1-2) RIBA STAGE 2 ACTION	1	1	1	Credit awarded where a study is conducted exploring the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design (refer to Methodology in guidance). Recommendations or solutions also need to be developed based on the study during or prior to Concept Design.	0.55%	It was agreed (meeting 12/02/20) that this would be targeted. The Architect advised (27/02/20) that a draft 'ease of disassembly study and functional adaptability strategy' has been produced and is in line with the methodology advised in the guidance. Input from M&E and SE will be sought as required. Action: Arch to produce the ease of disassembly and functional adaptability study with input from M&E and SE as required and provide a copy to Assessors for review.	Arch/M&E	Stage 2
Disassembly and functional adaptability – implementation (3-5)	1	1	1	Credit awarded where the first Wst 06 credit has been achieved and updates and changes are provided during Technical Design, on how the recommendations or solutions have been implemented where practical and cost effective. A building adaptability and disassembly guide also needs to be provided to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.	0.55%	It was agreed (meeting 12/02/20) that this would be targeted and the adaptability study will be updated at Technical Design stage to explain how the recommendations have been implemented. It was agreed that the Architect would produce the disassembly guide, with input from M&E and SE as required. Action: Arch to update the functional adaptability study at RIBA Stage 4 to include details of how the solutions have been implemented in the design (include justification if solutions could not be implemented). Provide a draft copy of the disassembly guide for interim review.	Arch	-
Sub-Total	11	7	8	One waste credit equals 0.55%				
Weighted Sub-Total	6	3.82	4.36					

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
LAND USE & ECOLOGY								
LE 01 Site selection				To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.				
Previously Occupied Land (1)	1	0	1	Credit awarded where at least 75% of the footprint of the proposed development (including temporary site works) has been previously occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.	1.00%	An initial review by the architects (27/02/20) suggests this credit should be identified as an optimal credit, pending further investigation of hard landscaping materials and areas. Action: Arch to provide an existing site plan overlain with the footprint (buildings, hard standing and the contractor's site compound) of the proposed development and confirm the percentage of the new footprint on previously developed land (i.e. buildings and hard standing).	Arch	-
Contaminated Land (2-3)	1	0	0	Credit awarded where the land within the site is deemed to be significantly contaminated by a contaminated land professional, who identifies the degree of contamination, sources/types of contamination and remediation options. AND The client/principal contractor commits to undertaking all remediation in line with the remediation strategy recommended by the specialist and this is carried out prior to development.	1.00%	Credit not targeted. The project team advised that no contamination has been found on site.	-	-
LE 02 Ecological risks and opportunities				To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.				
Pre-requisite (Statutory obligations) (1)	0	Y	Y	Pre-requisite achieved where the client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	0%	It was agreed (meeting 12/02/20) that this pre-requisite would be targeted. Action: Client/Contractor to provide a letter confirming that compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	Client/ Contractor	-
Survey and evaluation (2-6) RIBA STAGE 1 ACTION	1	1	1	Route 1 (Project team member) - the site has been evaluated using the Ecological Risk Evaluation Checklist (GN34) to confirm that the Foundation route can be used (refer to guidance for methodology). Route 2 (Ecologist) - A Suitably Qualified Ecologist (SQE) carries out a survey and evaluation (see Methodology) for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically Preparation and Brief Stage). The survey determines the ecological baseline of the site including: a) Current and potential ecological value and condition of the site, and related areas within the zone of influence; b) Direct and indirect risks to current ecological value; c) Capacity and feasibility for enhancement of the site's ecological value and, where relevant, areas within the zone of influence. Recommendations and data collected from the survey are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works.	1.00%	The project is adopting Route 2 so the Risk Checklist (GN34) is not required. It was agreed (meeting 12/02/20) that this credit would be targeted. The ecology report confirms a site survey (PEA) was completed in October 2018 (RIBA Stage 1). A brief review of the PEA suggests it covers BREEAM's detailed survey and evaluation requirements, as appropriate to the scope and scale of the project. Action: Eco to also provide a completed copy of GN40 prior to RIBA Stage 4 (this covers credits LE 02-LE 05).	Eco	RIBA Stage 1

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Determining ecological outcomes (6-7) RIBA STAGE 2 ACTION	1	1	1	For both Route 1 and 2: Pre-requisite and first credit achieved AND The project team liaise and collaborate with stakeholders early enough to influence key planning decisions (typically Concept Design stage), to: a: Identify the optimal ecological outcomes for the site. b: Identify, appraise and select measures to meet the optimal ecological outcomes for the site, in line with the mitigation hierarchy of action: 1) avoidance; 2) protection; 3) reduction or limitation of negative impacts; 4) on site compensation; and 5) enhancement, considering the capacity and feasibility within the site, or where viable, off-site.	1.00%	It was agreed (meeting 12/02/20) that this credit would be targeted. Relevant members of the Design Team to liaise with each other and the Ecologist to identify the optimal ecological outcome for the site and appraise measures to meet this outcome. Method has provided design team with list of discussion points that need to be raised during these discussions. Action: Design team (e.g. Arch, Client, Planning Consultant, Eco) to provide meeting minutes/ email threads/ record of telephone conversations to show liaison between the Eco and the design team. Action: Eco to provide a completed GN40 prior to close of RIBA Stage 4 (this covers credits LE 02-LE 05).	Eco/ design team	RIBA Stage 2
LE 03 Managing impacts on ecology				To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.				
Pre-requisite (Ecological risks and opportunities) (1)	0	Y	Y	Pre-requisite awarded where LE 02's 'Survey and evaluation and Determining ecological outcomes' criteria have been achieved using the Foundation route (Route 1) or the Comprehensive route (Route 2).	0.00%	See above for LE 02.	Client/ Contractor	-
Planning and measures on-site (2-4) RIBA STAGE 2 ACTION	1	1	1	All routes: Credit awarded where further planning to avoid and manage negative ecological impacts on site is carried out early enough to influence the concept design and design brief as well as site preparation planning (typically Concept Design stage). Please refer to the BREEAM Methodology for further details. On-site measures for managing negative ecological impacts during site preparation and construction are implemented based on input from the project team in collaboration with representative stakeholders and data collated as part of LE 02.	1.00%	It was agreed (meeting 12/02/20) that this credit would be targeted. Relevant members of the Design Team to liaise with each other and the Ecologist to discuss how measures to avoid and manage negative ecological impacts on site can be incorporated into the design. Method has provided design team with list of discussion points that need to be raised during these discussions. Action: Design team (e.g. Arch, Client, Planning Consultant, Contractor, Eco) to provide meeting minutes/ email threads/ record of telephone conversations to show liaison between the Eco and the design team. Action: Eco to provide a completed GN40 prior to close of RIBA Stage 4 (this covers credits LE 02-LE 05).	Eco/design team	RIBA Stage 2
Managing negative impacts (5-8)	2	2	2	Route 1 (Project team member) (one credit) - Credit awarded where criteria 2 and 3 have been achieved and where negative impacts from site preparation and construction works have been managed in accordance with the mitigation hierarchy (please refer to guidance for Methodology) and no overall loss of ecological value has occurred. Route 2 (Ecologist) (up to two credits) - Criteria 2-4 have been achieved. Negative impacts from site preparation and construction works have been managed according to the hierarchy, in line with the SQE's recommendations AND either: a) No overall loss of ecological value has occurred (2 credits) b) The loss of ecological value has been minimised (1 credit).	2.00%	It was agreed (meeting 12/02/20) that two credits would be targeted in the base. No overall loss of ecological value is anticipated. Action: Eco to provide completed calculations of the change in ecological value to confirm the credits achievable (using BREEAM's GN36 calculator). Action: Eco/ LA to provide planting plans to support the calculations.	Eco/LA	-
LE 04 Ecological change and enhancement				To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.				
Pre-requisite (Managing negative impacts on ecology) (1-2)	0	Y	Y	Pre-requisite awarded where criterion 6 for Route 1 or 8 for Route 2 in LE 03 have been achieved AND the client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.	0.00%	See above for LE 02.	Client/ Contractor	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Ecological enhancement (4-5)	1	1	1	<p>Route 1 (Project team member) - N/A, credit for route 2 only.</p> <p>Route 2 (Ecologist) - Credit awarded where measures have been implemented that enhance ecological value based on input from the project team and SQE (in liaison and collaboration with representative stakeholders and with consideration of data shared and collated). Measures are implemented in the following order: a) On site; and where this is not feasible, b) Off site within the zone of influence.</p> <p>Collated data is analysed and where potentially valuable, is provided to local environmental records centres nearest to, or relevant for, the site.</p>	1.00%	<p>It was agreed (meeting 12/02/20) that this credit would be targeted. Evidence required for this credit should be covered by evidence provided at Stage 2 for the LE2 Determining Ecological Outcomes credit.</p> <p>Action: Eco to provide completed GN40 prior to close of RIBA Stage 4 and confirm that the collated data (i.e. the site survey information) will be provided to the local environmental records centre.</p> <p>Action: Eco/ LA to provide evidence that proposed measures have been implemented in the design.</p>	Eco/LA	RIBA Stage 2
Change and enhancement of ecology (3 & 6)	3	3	3	<p>Route 1 (Project team member) - One credit awarded where locally relevant ecological measures have been implemented that enhance the site's ecological value. The measures adopted are based on recommendations from recognised 'local' ecological expertise and specialist input and guidance and input from the project team in collaboration with representative stakeholders and data collated as part of LE 02.</p> <p>Route 2 (Ecologist) - Up to 3 credits awarded based on the change in ecological value calculation occurring as a result of the project. This must be calculated in accordance with Guidance Note 36. Credits are awarded as follows: - Minimising loss of ecological value (one credit - percentage score of 75-94) - No net loss of ecological value (two credits - percentage score of 95-104) - Net gain of ecological value (three credits - percentage score of 105-109).</p>	3.00%	<p>It was agreed (meeting 12/02/20) that three credits would be targeted as net gain in the site's ecological value is anticipated.</p> <p>Action: Eco to provide completed calculations of the change in ecological value to confirm the credits achievable (using BREEAM's GN36 calculator).</p> <p>Action: Eco/ LA to provide planting plans to support the calculations.</p>	Eco/LA	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
LE05 Long term ecology management and maintenance								
To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.								
Pre-requisite (Statutory obligations, planning and site implementation) (1-2)	0	Y	Y	Pre-requisite achieved where the client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site, AND the following: Route 1 (Project team member): Criteria 6 in LE 03 have been achieved; Route 2 (Ecologist): Criteria 8 in LE 03 has been achieved, and at least one LE 04 'enhancement of ecology' credit has been achieved.	0.00%	See above for LE 03 and LE 04.	Client/ Contractor	-
Management and maintenance throughout the project (3-6)	1	1	1	Credit awarded where measures have been implemented based on input from the project team in collaboration with representative stakeholders and data collated as part of LE 02 to manage and maintain ecology throughout the project. 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. In addition, a section on Ecology and Biodiversity needs to be included in tenant/building owner information to inform the owner/occupant of local ecological features, value and biodiversity on or near the site.	1.00%	It was agreed (meeting 12/02/20) that this credit would be targeted. Relevant members of the Design Team members to liaise with each other and the Ecologist to determine measures to manage and maintain site ecology to ensure optimal ecological outcomes agreed in LE 02 are met in-practice. Method has provided the design team with list of discussion points that need to be raised during these discussions. Action: Design team (e.g. Client, Contractor, Eco) to provide meeting minutes/ email threads/ record of telephone conversations to show liaison between the Eco and the design team. Action: Eco to provide completed GN40 prior to close of RIBA Stage 4. Action: Contractor to include a clause in the prelims for the inclusion of a section on Ecology and Biodiversity in the tenant/building owner information pack (using Method standard clauses). (This can be written by the Ecologist) Action: Contractor to provide a letter of commitment to include a section on Ecology and Biodiversity in the tenant/building owner information pack (using Method standard clauses).	Eco/ Contractor	-
Landscape and ecology management plan (7)	1	1	1	Credit awarded where a landscape and ecology management plan is developed (in accordance with BS 42020:2013 Section 11.1), covering the first five years after project completion and including: a) Actions and responsibilities of relevant individuals prior to handover; b) The ecological value and condition of the site at handover and how this is expected to change; c) Identification of opportunities for ongoing alignment with activities beyond the development project which support the aims of BREEAM; d) Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts. e) Clearly defined and allocated roles and responsibilities for delivering the plan. The landscape and management plan is updated to support maintenance of the ecological value of the site.	1.00%	It was agreed (meeting 12/02/20) that this credit would be targeted. Action: Eco/ LA to produce landscape and ecology management plan or provide letter of commitment to do so and provide a copy of the plan at Post Construction.	Eco/ LA	-
Sub-Total	13	11	12	One land use and ecology credit equals 1%				
Weighted Sub-Total	13	11.00	12.00					

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
POLLUTION								
Pol 01 Impact of refrigerants				To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.				
Pre-requisite (2)	0	Y	Y	Where there are refrigerants specified within the installed plant/systems: All systems with electric compressors must comply with the requirements of BS EN 378:2016 (Parts 2 and 3) and, if they contain ammonia, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice. This is not applicable where there are no refrigerants.	0.00%	It was agreed (meeting 02/12/20) that one credit may be achievable. ASHPs (which contain refrigerants) are currently proposed, and M&E anticipated that Direct Effect Life Cycle CO ₂ equivalent emissions of ≤ 1000kgCO ₂ e/kW cooling/heating capacity could be achieved for one credit. It was deemed unlikely that systems would have automated refrigerant leak detection systems.		
Impact of Refrigerants (1-7)	3	1	1	One credit is awarded where the systems using refrigerants have Direct Effect Life Cycle CO ₂ equivalent emissions of ≤ 1000kgCO ₂ e/kW cooling/heating capacity; two credits if ≤ 100kgCO ₂ e/kW cooling/heating capacity OR all refrigerants have a GWP of <10. An additional credit is awarded where all systems are hermetically sealed or only use environmentally benign refrigerants, OR, if not sealed, systems have an automated refrigerant leak detection system capable of continuously monitoring for leaks and automatically respond and manage the remaining refrigerant in the event of a leak. All three credits awarded where there are no refrigerants within the installed plant/systems.	2.00%	Action: M&E to include compliant clauses in the specification (using Method standard clauses). Action: M&E to provide details of the refrigerant systems as required to complete the Pol 01 calculator to confirm the credits achievable.	M&E	-
Pol 02 Local air quality				To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.				
Local air quality (1-3)	2	2	2	Credits awarded where EITHER all heating and hot water is supplied by non-combustion systems (e.g. powered by electricity) OR Emissions from all installed combustion plant providing space heating and hot water do not exceed the levels set in Table 12.4 and 12.5 (please refer to guidance for these set levels and method for determining pollution location). Manufacturer's labelling needs to be provided in compliance with European directive 2009/125/EC.	1.33%	It was agreed (meeting 02/12/20) that two credits would be targeted as it is anticipated that all heating and hot water will be supplied by non-combustion systems. Action: M&E to include compliant clause in the specification (using Method standard clauses). Provide details of the proposed heating and hot water systems to confirm absence of combustion systems.	M&E	-
Pol 03 Flood and surface water management				To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.				
Pre-requisite (1)	0	Y	Y	An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.	0.00%	It was agreed (meeting 12/02/20) that this would be targeted. An FRA has been carried out by Link Engineering.	-	-
Flood Resilience (2-4)	2	2	2	One credit is awarded where the assessed development is located in a zone defined as having a medium or high annual probability of flooding and is not in a functional floodplain; AND the ground level of the building and access to the building and site are 600mm above the design flood level for the site's location, OR, where final building and site design reflects recommendations made by appropriate consultant, in accordance with BS 8533: 2017. Two credits are awarded where the assessed development is located in a zone defined as having a low annual probability of flooding and there is a low risk of flooding from all sources: fluvial, tidal, surface water, groundwater, sewers, reservoirs, canals and other artificial sources. All current and future sources of flooding must be taken into account.	1.33%	The Flood Risk Assessment has been produced by Link Engineering and confirms the site is in Flood Zone 1 with a low/ negligible risk of flooding from all sources.	-	-
Pre-requisite (Surface Water Run-Off) (5)	0	Y	Y	Pre-requisite met where the design for surface water run-off is bespoke, i.e. specific to site and the environment surrounding the site (natural and man-made). Priority levels detailed in the guidance need to be followed.	0.00%	It was agreed (meeting 12/02/20) that this would be targeted.	CE	-

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Surface Water Run-Off (6-16)	2	2	2	<p>One credit is awarded where surface water drainage measures are specified to ensure the peak run-off rate shows a 30% improvement (for brownfield sites) or is no greater (for greenfield sites) for the developed site compared to pre-development, in line with 1 year and 100 year return period events.</p> <p>A second credit is awarded where flooding of property will not occur in the event of local drainage system failure. In addition, the drainage strategy must meet certain other requirements from one of two options detailed in the BREEM guidance.</p> <p>Maintenance agreements should be in place for the ownership, operation and maintenance of all specified SuDs.</p> <p>All calculations must include an allowance for climate change, in accordance with current best practice guidelines.</p>	1.33%	<p>Two credits are targeted following correspondence from Link Engineering (26/02/20) which confirmed that criteria for both credits could be met. Likely that drainage strategy report will need updating in the next stage of design to confirm compliance with BREEM requirements.</p> <p>Action: CE to complete Guidance Note 38 to confirm the credits achievable and send to Method for review. Provide supporting evidence (e.g. calculations, drawings, updated drainage strategy report) for the purposes of the design stage assessment.</p>	CE	-
Minimising Watercourse Pollution (16-23)	1	0	0	<p>Credit awarded where there is no discharge from the developed site for rainfall up to 5mm AND Effective on site treatment has been specified in areas that could be a source of watercourse pollution, including low and high risk (oil/petrol interceptors required) areas. All systems must be designed and installed in line with PPG3 and the SUDS manual and with PPG13 for vehicle wash areas.</p> <p>A comprehensive up-to-date drainage plan should be handed over to building/site occupiers at the end of the project.</p>	0.67%	<p>Credit not targeted, following correspondence received from Link Engineering (26/02/20) which confirmed that the 5mm target cannot be achieved based on current proposals.</p>	-	-
Pol 04 Reduction of night time light pollution				To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.				
Reduction of Night Time Light Pollution (1-5)	1	1	1	<p>Credit awarded where the external lighting design is in compliance with the Institution of Lighting Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Light (2011) and all external lighting (except security lighting) is automatically switched off between 2300-0700.</p> <p>If safety or security lighting is provided, these dim down to the lower levels in Table 2 of the ILP's guidance notes. Illuminated advertisements must comply with ILP PLG05.</p> <p>'External lighting' includes both lighting mounted externally, and lighting mounted inside a building that is primarily intended to enhance its external appearance, or light external spaces, after dark.</p>	0.67%	<p>It was agreed (meeting 12/02/20) that this would be targeted.</p> <p>Action: M&E to include compliant clause in the specification (using Method standard clauses). Provide supporting drawings for the design stage assessment.</p>	M&E	-
Pol 05 Reduction of noise pollution				To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.				
Reduction of Noise Pollution (1-5)	1	1	1	<p>A noise impact assessment is carried out by a suitably qualified acoustic consultant in compliance with BS 4142:2014 and measures:</p> <p>a) Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed building;</p> <p>b) The rating noise level resulting from the new noise source.</p> <p>The noise levels from the proposed development, when measured at the nearest/most exposed noise sensitive development, should be at least 5dB lower than the background noise throughout the day and night. Where changes in noise level exceed this, measures should be installed to attenuate noise at its source in order to comply with these levels.</p> <p>OR</p> <p>Credit awarded where there are, or will be, no noise-sensitive areas/buildings within 800m of the or in the development.</p>	0.67%	<p>It was agreed (meeting 12/02/20) that this would be targeted. It was advised that an acoustician would be appointed to undertake a noise survey and that their recommendations would be adopted within the design.</p> <p>Action: Aco to provide a copy of the noise survey report, including limits for plant noise, for the design stage assessment.</p> <p>Action: M&E to confirm that the plant limits will be met in the design.</p>	Aco/M&E	-
Sub-Total	12	9	9	One pollution credit equals 0.67%				
Weighted Sub-Total	8	6.00	6.00					

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?	
	Credits Available	Base Target	Optimum Target						
INNOVATION CREDITS / EXEMPLARY LEVEL CREDITS - A maximum of 10 credits are available in aggregate from any combination of the following:									
Man 03	Responsible Construction Practices (23)	1	0	0	Achieve all items in Table 4.1.	1.00%	Credit not targeted. Achieving all criteria in Table 4.1 is considered too onerous.	-	-
Hea 01	Visual Comfort (14-15)	2	1	1	Up to two credits awarded independently as follows: One credit awarded where a higher level of daylighting is achieved. Please refer to the technical guidance for details. One credit awarded where lighting in each zone can 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.	1.00%	It was agreed (meeting 12/02/20) that at least one credit (for dimmer switches) could be targeted (although costs were yet to be investigated). Action: M&E to include a compliant clause in the specification (using Method standard clauses) and provide drawings showing the dimming controls.	M&E/ Arch	
Hea 02	Indoor Air Quality (11)	1	0	0	Credit awarded where three of the products are specified to comply with lower levels of formaldehyde and VOCs, as per the relevant table. Please refer to the technical guidance for details.	1.00%	Credit not targeted.	-	
Hea 06	Security (4)	1	0	0	Credit awarded where a compliant risk based security rating scheme (e.g. SABRE) has been used and the performance against the scheme has been confirmed by independent assessment and verification.	1.00%	Credit not targeted.	-	
Ene 01	Reduction of Energy Use and Carbon Emissions (6-12)	7	0	0	Up to two credits can be achieved where the building achieves an EPR NC \geq 0.9 and zero net regulated CO ₂ emissions. Energy generation from on-site and near-site LZC sources must be sufficient to offset all carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use (one credit achieved for offsetting 10% of CO ₂ emissions from unregulated energy use; two credits for offsetting 50%). Up to three credits where the building is deemed to be carbon negative (where > 100% of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources). Up to two credits can be achieved where all Ene 02 Energy monitoring credits have been awarded, and the client/building occupier commits funds to pay for the post occupancy stage, which requires an energy assessor to report on actual energy consumption compared to the targets. The energy model must be submitted to the BRE and retained by the building owner.	1.00%	Credit not targeted.	-	
Wat 01	Water Consumption (7-8)	1	0	0	Credit awarded where the water consumption (litres/person/day) for the assessed building achieves a 65% improvement when assessed via the standard approach. Where the standard approach cannot be used, credit awarded where level 5 is achieved and > 95% of WC or urinal flushing demand is met using recycled non-potable water. Refer to 'Methodology' in guidance.	1.00%	Credit not targeted.	-	

Credit Title	CREDITS			Summary of Requirements (refer to the BREEM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					
Mat 01 Environmental Impacts - Building LCA (8-18) RIBA STAGE 2 ACTION	3	0	0	Up to three credits awarded independently as follows: One credit where an LCA options appraisal of at least 3 significantly different core building services design options is undertaken at Concept Design. See BREEM manual and Mat 01 above for further details. One credit where the Life Cycle Cost analysis credits under Man 02 are achieved and the LCC and LCA analyses are aligned. Please see BREEM manual for further details. One credit where a suitably qualified third party carries out the building LCAs or produces a report verifying the building LCAs accurately represent the designs under consideration during Concept Design and Technical Design. Itemise the findings of the verification checks including, as a minimum, the quality requirements as per the BREEM manual.	1.00%	Credit not targeted.	-	-
Mat 03 Responsible sourcing of construction products (4)	1	0	0	Credit awarded where at least 50% of the available responsible sourcing points have been achieved, and the calculation includes building services.	1.00%	Credit not targeted.	-	
Wst 01 Construction Waste Management (8-11)	1	0	0	Credit awarded where the total non-hazardous construction waste and final diversion of resources from landfill figures exceed the benchmarks: $\leq 1.6m^3 / 1.9$ tonnes non-hazardous construction waste generated by the development per 100sqm GIFA; and at least 85% by volume / 90% by tonnage of non-hazardous construction waste, 85% by volume / 95% by tonnage of non-hazardous demolition waste, and 95% by volume / 95% by tonnage of excavation waste is diverted from landfill.	1.00%	Credit not targeted.	-	
Wst 02 Use of recycled and sustainably sourced aggregates (7)	1	0	0	Credit awarded where the Project Sustainable Aggregate Points score is more than 6.	1.00%	Credit not targeted.	-	
Wst 05 Adaptation to climate change (4-5)	1	0	0	Credit awarded where the criteria for Wst 05 have been achieved plus certain criteria from Hea 04, Ene 01, Ene 04, Wat 01, Mat 05 and Pol 03.	1.00%	Credit not targeted.	-	
LE 02 Wider site sustainability (8-10)	1	0	0	Credit awarded where the team considers wider site sustainability-related activities and the potential for ecosystem service related benefits when determining the optimal ecological outcome (refer to guidance methodology) AND Hea 07, Pol 03 (Surface water run off & Minimising watercourse pollution) and Pol 05 credits have been achieved.	1.00%	Credit not targeted.	-	
LE 04 Change and enhancement of ecological value (7)	1	0	0	Credit awarded where a significant net gain of ecological value (percentage score of 110 or above) has been achieved.	1.00%	Credit not targeted.	-	
Inn 01 Special Innovative Feature (2)	10	0	0	Up to ten credits can be awarded if a successful application is made to the BRE to have any particular building feature, technology, system or process associated with the project recognised as 'innovative'. One credit available per successful application.	10.00%	Credits not targeted.	-	
Sub-Total	10	1	1					
Weighted Sub-Total	10	1.00	1.00	One Innovation credit = 1%. A maximum of 10% can be awarded in this section.				

Credit Title	CREDITS			Summary of Requirements (refer to the BREEAM Guidance Notes for the full credit requirements)	Total Value (%)	Comments/Actions	Actionee	Stage 2 Action deadline?
	Credits Available	Base Target	Optimum Target					

TOTALS

Base Target	58.24
Optimum Target	66.18
Total required for 'Pass'	30
Total Required for 'Good'	45
Total required for 'Very Good'	55
Total required for 'Excellent'	70
Total required for 'Outstanding'	85

PROJECT TEAM KEY:	
Client = Project Client (Charles Sandy; Patrick Bradshaw - Middle Aston Ltd)	Contractor (Mike Hawkins - Hawkins Group)
PM = Project Manager (NA)	CE = Civil Engineer (Chris Hadjivassiliou - Link Engineering)
Arch = Architect (Roger Goodliff, Andrew Kemp - Ferguson Mann)	TP = Transport Planner (Chris Holdup - Mode)
QS = Quantity Surveyor (NYA)	Eco = Ecologist (Ted Bodsworth - Windrush Ecology)
M&E = Mechanical and Electrical Engineer (Jonathan Cooper; BJP)	Aco = Acoustician (NYA)
LA = Landscape Architect (NYA)	AP = BREEAM Accredited Professional (NA)
SE = Structural Engineer (Tim Harrington - Forward Structural Consultants)	BREEAM ASSESSOR/AP (Method): (Sarah Briaris, Natasha Fox - Method Consulting LLP)

NA = Not Appointed; NYA = Not Yet Appointed

Completed by: SAB Date: 18/03/20

Checked by: EXR Date: 18/03/20

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