

HIGHGATE SCHOOL - TEMPORARY ACCOMMODATION ON SYNTHETIC SPORTS PITCH (BISHOPSWOOD ROAD CAMPUS)

Breeam Pre-Assessment Report

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DOCUMENT CONTROL

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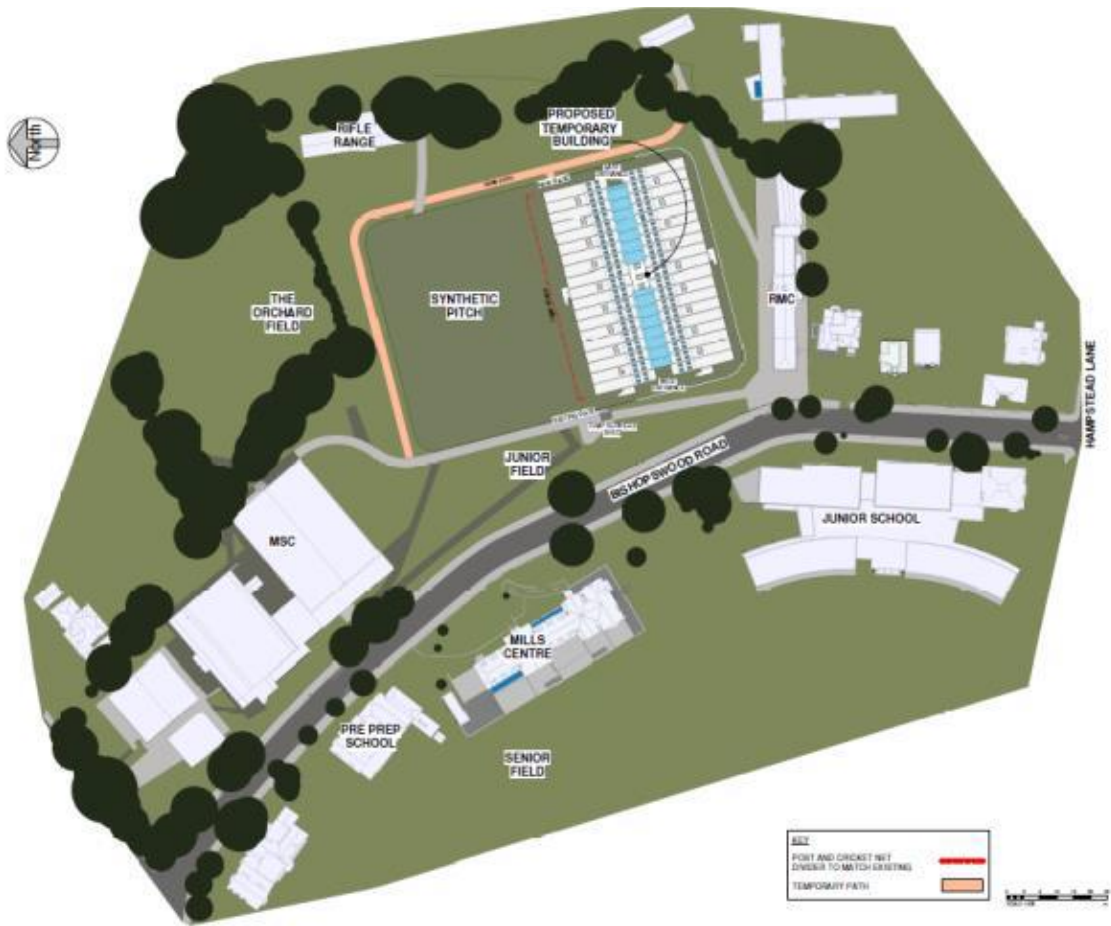
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This assessment and indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a buildings potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.

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1. INTRODUCTION

1.1. ASSESSMENT DETAILS

This report is intended as a summary of the BREEAM Version 6.1 Pre-Assessment review of the following project:

Project Name	Highgate School - Temporary Accommodation on Synthetic Sports Pitch (Bishopswood Road Campus)
Breeam Version	BREEAM UK New Construction Version 6.1 (SD5079)
Breeam Registration No.	TBC
Assessment Stage	Pre-Assessment Stage
Target Rating	Very Good (>55%)
Lead Assessor	Paul Dodds – BREEAM Licence No. SUSD_6W

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1.2. SCOPE

This pre-assessment estimate for BREEAM version 6.1 is in support of the proposed development. It is an estimate that sets out a method for which the proposed building could reasonably achieve a BREEAM rating of “Very Good” It is understood that the building will require a Post Construction BREEAM rating as a condition of any planning approval or funding criteria.

1.3. BASIS OF ASSESSMENT

This report and estimate has been based on information provided by;
Modular Building Consultants

1.4. THE BREEAM SCHEME

BREEAM (Building Research Establishment’s Environmental Assessment Method) is the world’s leading and most widely used environmental assessment method for buildings. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building’s environmental performance.

1.5. AIMS OF BREEAM

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

1.6. OBJECTIVES OF BREEAM

- To provide market recognition to low environmental impact buildings
- To ensure best environmental practice is incorporated in buildings
- To set criteria and standards surpassing those required by regulations and challenge the market to provide innovative solutions that minimise the environmental impact of buildings
- To raise the awareness of owners, occupants, designers and operators of the benefits of buildings with a reduced impact on the environment
- To allow organisations to demonstrate progress towards corporate environmental objectives

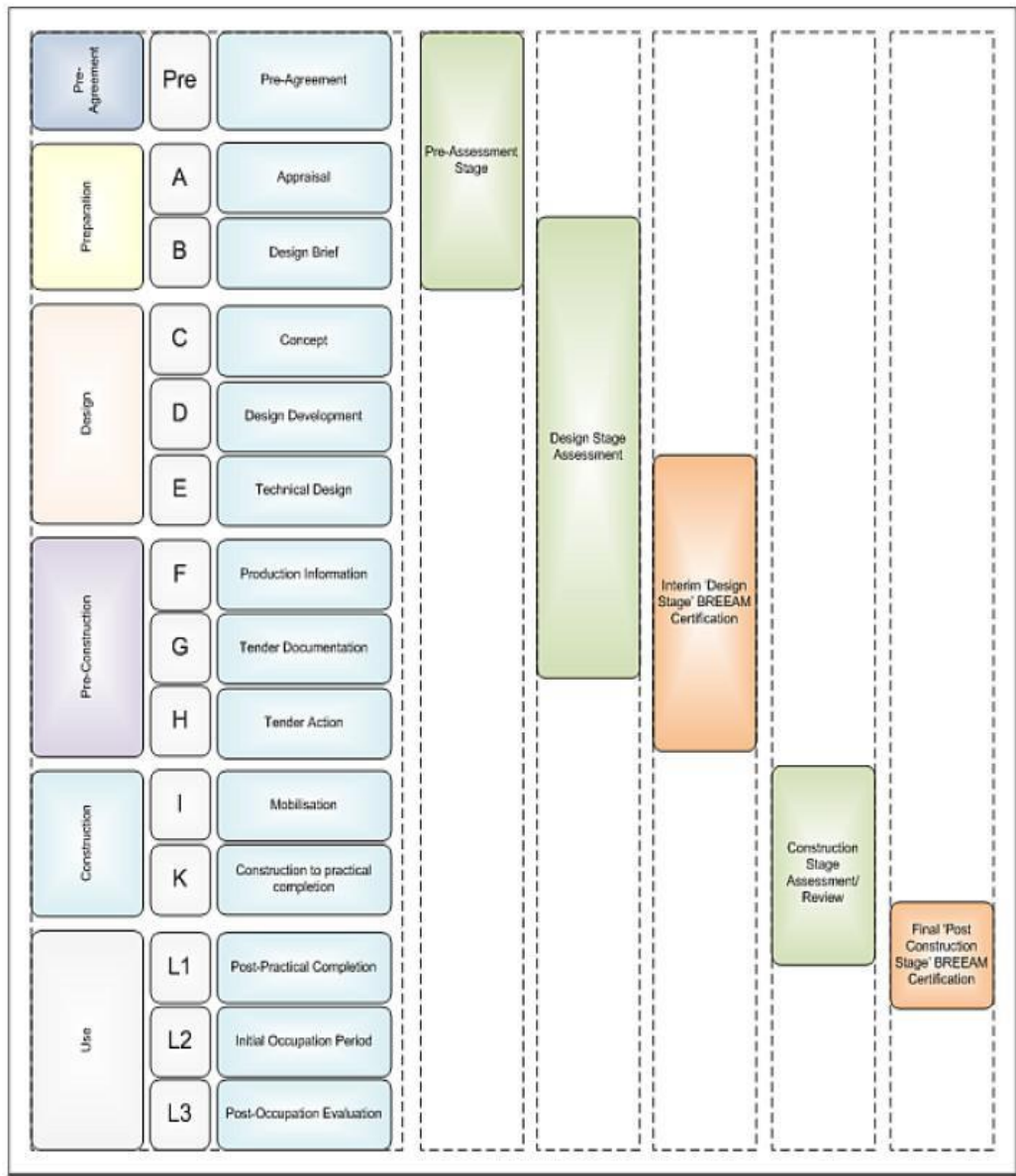
Building projects are assessed at the design and post-construction stages using a system of environmental issues grouped within the following categories:

- Management
- Health and Well Being
- Energy
- Transport
- Water
- Materials
- Waste
- Land use and Ecology
- Pollution

1.7. WHAT IS BREEAM NEW CONSTRUCTION?

BREEAM New Construction is a performance based assessment method and certification scheme for new buildings. The primary aim of BREEAM New Construction is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost effective manner. This is achieved through integration and use of the scheme by clients and their project teams at key stages in the design and procurement process. This enables the client, through the BREEAM Assessor and the BRE Global certification process, to measure, evaluate and reflect the performance of their building against best practice in an independent and robust manner. This performance is quantified by a number of individual measures and associated criteria stretching across a range of environmental issues (see Table below), which is ultimately expressed as a single certified BREEAM rating, i.e. the label.

1.8. BREEAM ASSESSMENT CERTIFICATION STAGES



1.9. BREEAM SCORING & RATING

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

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

How these elements combine to produce a BREEAM rating is summarised on the following pages. This is followed by a description and example describing the methodology for calculating a rating.

BREEAM Rating Benchmarks:

BREEAM Rating	% score
Outstanding	≥ 85
Excellent	≥ 70
Very good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

The BREEAM rating benchmark levels enable a client or other stakeholder to compare an individual building’s performance with other BREEAM rated buildings and the typical sustainability performance of new non-domestic buildings in the UK.

In this respect each BREEAM rating level broadly represents performance equivalent to:

1. Outstanding: Less than top 1% of UK new non-domestic buildings (innovator)
2. Excellent: Top 10% of UK new non-domestic buildings (best practice)
3. Very Good: Top 25% of UK new non-domestic buildings (advanced good practice)
4. Good: Top 50% of UK new non-domestic buildings (intermediate good practice)
5. Pass: Top 75% of UK new non-domestic buildings (standard good practice)

An unclassified BREEAM rating represents performance that is non-compliant with BREEAM, in terms of failing to meet either the BREEAM minimum standards of performance for key environmental issues or the overall threshold score required for formal BREEAM certification.

2. BREEAM ISSUES AND CREDITS

2.1. MINIMUM STANDARDS

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

However, to ensure that performance against fundamental environmental issues is not over-looked in pursuit of a particular rating, BREEAM sets minimum standards of performance in key areas e.g. energy, water, waste etc. It is important to bear in mind that these are minimum acceptable levels of performance and, in that respect they should not necessarily be viewed as levels that are representative of best practice for a BREEAM rating level.

To achieve a particular BREEAM rating, the minimum overall percentage score must be achieved and the minimum standards, applicable to that rating level complied with.

2.2. ENVIRONMENTAL WEIGHTINGS

Environmental weightings are fundamental to any building environmental assessment method as they provide a means of defining, and therefore ranking, the relative impact of environmental issues. BREEAM uses an explicit weighting system derived from a combination of consensus based weightings and ranking by a panel of experts. The outputs from this exercise are then used to determine the relative value of the environmental sections used in BREEAM and their contribution to the overall BREEAM score.

This weighting system is defined in greater detail within the BRE Global Core Process Standard (BES 5301) and its supporting procedural documents. These form part of the over-arching BREEAM Standard for a Sustainable Built Environment. The same ranking of impacts used in BREEAM underpins the scoring mechanisms in the BRE Green Guide to Specification and the BRE Environmental Profiling Method for construction materials.

3. SCORING SCENARIOS

It should be noted that the pre-assessment scores have been based on the following scoring scenario;

Targeted - The number currently targeted.

On this basis, the following scores are considered achievable;

Scenario	Score	BREEAM Rating
Targeted	68.42	Very Good

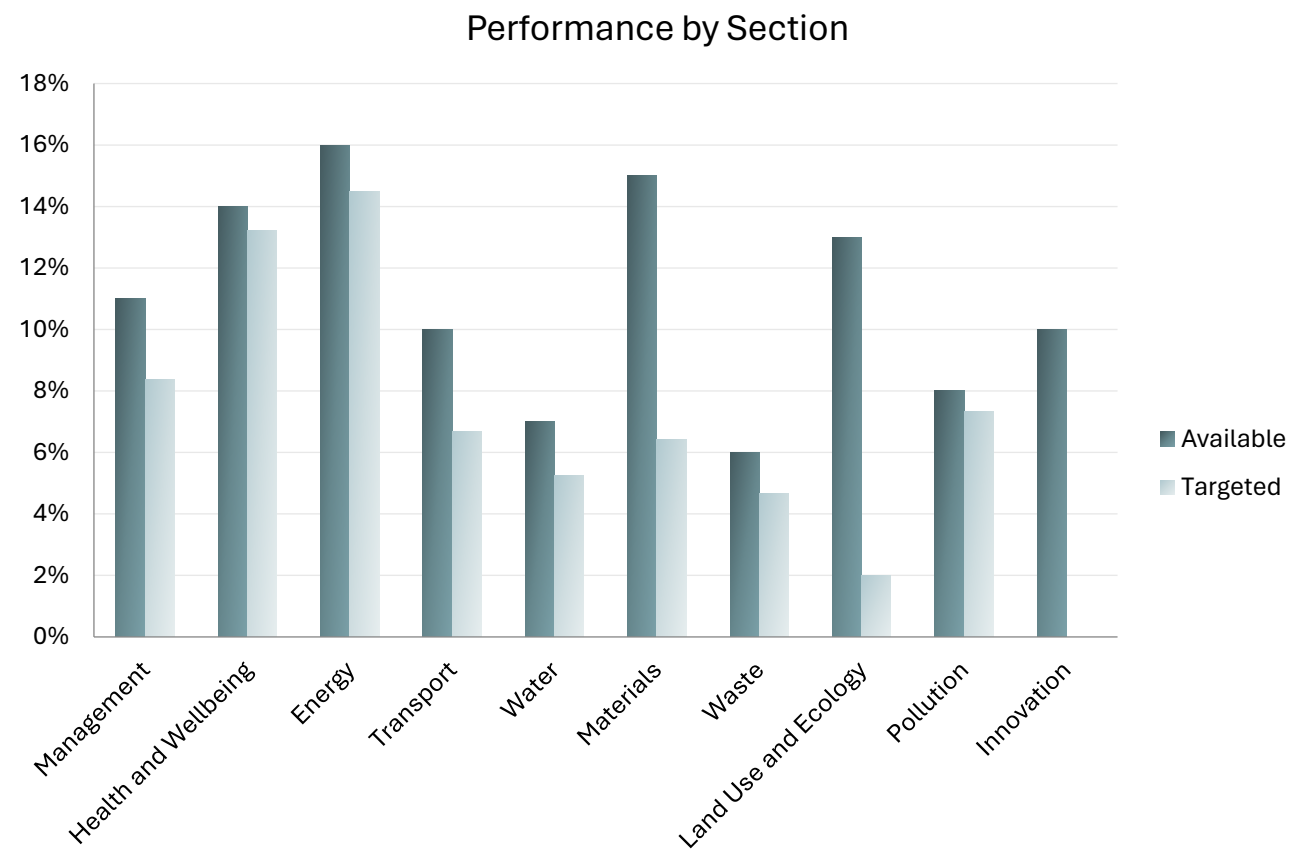
The Pre-Assessment Estimate shows that by achieving the mandatory levels of credits for Energy Use and Water use together with simple assumptions of good design, specification and construction together with the addition of efficient space and water heating technologies that the development may achieve a BREEAM “Very Good” rating.

The current BREEAM Scheme New Construction version 6.1 has been used to provide this Pre-Assessment Estimate.

4. SECTION SCORE SUMMARY

Project:	23049 - Highgate School, London
Report:	Pre-Assessment Stage
Design Target:	Very Good - 68.42%

Section	Available		Targeted	
	Credits	Percent	Credits	Percent
Management	21	11%	16	8.38%
Health and Wellbeing	18	14%	17	13.22%
Energy	21	16%	19	14.48%
Transport	12	10%	8	6.67%
Water	8	7%	6	5.25%
Materials	14	15%	6	6.43%
Waste	9	6%	7	4.67%
Land Use and Ecology	13	13%	2	2%
Pollution	12	8%	11	7.33%
Innovation	10	10%	0	0%
Total	138	110.00%	92	68.42%



5. CREDIT CRITERIA SUMMARY

Project:	23049 - Highgate School, London
Report:	Pre-Assessment Stage
Design Target:	Very Good - 68.42%

Management: 1 Credit = 0.52%	Available		Targeted	
	Credits	Percent	Credits	Percent
Man 01: Project brief and design > 1. Project delivery planning	1	0.52%	1	0.52%
Man 01: Project brief and design > 2. Stakeholder consultation	1	0.52%	1	0.52%
Man 01: Project brief and design > 3. BREEAM Advisory Professional : BREEAM AP (Concept Design)	1	0.52%	0	0%
Man 01: Project brief and design > 3. BREEAM Advisory Professional : BREEAM AP (Developed Design)	1	0.52%	0	0%
Man 02: Life cycle cost and service life planning > 1. Elemental life cycle cost (LCC)	2	1.05%	0	0%
Man 02: Life cycle cost and service life planning > 2. Component level life options appraisal	1	0.52%	0	0%
Man 02: Life cycle cost and service life planning > 3. Capital cost reporting	1	0.52%	1	0.52%
Man 03: Responsible construction practices > 1. Pre-requisite - Legal and sustainable timber	0	0%	0	0%
Man 03: Responsible construction practices > 3. Environmental management	1	0.52%	1	0.52%
Man 03: Responsible construction practices > 4. BREEAM Advisory Professional (Site)	1	0.52%	1	0.52%
Man 03: Responsible construction practices > 5. Responsible construction management	2	1.05%	2	1.05%
Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Pre-requisite	0	0%	0	0%
Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Utility consumption	1	0.52%	1	0.52%
Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Transportation of construction materials and waste	1	0.52%	1	0.52%
Man 04: Commissioning and handover > 1. Commissioning - testing schedule and responsibilities	1	0.52%	1	0.52%
Man 04: Commissioning and handover > 2. Commissioning - design and preparation	1	0.52%	1	0.52%
Man 04: Commissioning and handover > 3. Testing and inspecting building fabric	1	0.52%	1	0.52%
Man 04: Commissioning and handover > 4. Handover	1	0.52%	1	0.52%
Man 05: Aftercare > 1. Aftercare support	1	0.52%	1	0.52%
Man 05: Aftercare > 2. Commissioning - implementation	1	0.52%	1	0.52%
Man 05: Aftercare > 3. Post Occupancy Evaluation (POE)	1	0.52%	1	0.52%
Management Totals	21	11.00%	16	8.38%

Health and Wellbeing: 1 Credit = 0.78%	Available		Targeted	
	Credits	Percent	Credits	Percent

Hea 01: Visual comfort > 1. Control of glare from sunlight control	1	0.78%	1	0.78%
Hea 01: Visual comfort > 2. Daylighting	2	1.56%	2	1.56%
Hea 01: Visual comfort > 3. View out	1	0.78%	1	0.78%
Hea 01: Visual comfort > 4. Internal and external lighting levels, zoning and control	1	0.78%	1	0.78%
Hea 02: Indoor air quality > 1. Pre-requisite	0	0%	0	0%
Hea 02: Indoor air quality > 2. Ventilation	1	0.78%	1	0.78%
Hea 02: Indoor air quality > 3. Emissions from construction products	2	1.56%	2	1.56%
Hea 02: Indoor air quality > 4. Post-construction indoor air quality measurement	1	0.78%	1	0.78%
Hea 04: Thermal comfort > 1. Thermal modelling	1	0.78%	1	0.78%
Hea 04: Thermal comfort > 2. Design for future thermal comfort	1	0.78%	1	0.78%
Hea 04: Thermal comfort > 3. Thermal zoning and controls	1	0.78%	1	0.78%
Hea 05: Acoustic performance > 1. Sound insulation	1	0.78%	1	0.78%
Hea 05: Acoustic performance > 2. Indoor ambient noise level	1	0.78%	1	0.78%
Hea 05: Acoustic performance > 3. Room acoustics	1	0.78%	1	0.78%
Hea 06: Security	1	0.78%	1	0.78%
Hea 07: Safe and healthy surroundings > 1. Safe access	1	0.78%	0	0%
Hea 07: Safe and healthy surroundings > 2. Outside space	1	0.78%	1	0.78%
Health and Wellbeing Totals	18	14.00%	17	13.22%

Energy: 1 Credit = 0.76%	Available		Targeted	
	Credits	Percent	Credits	Percent
Ene 01: Reduction of energy use and carbon emissions > 1. Energy performance	9	6.86%	9	6.86%
Ene 01: Reduction of energy use and carbon emissions > 2. Prediction of operational energy consumption	4	3.05%	4	3.05%
Ene 02: Energy monitoring > 1. Sub-metering of end use categories	1	0.76%	1	0.76%
Ene 02: Energy monitoring > 2. Sub-metering of high energy load and tenancy areas	1	0.76%	1	0.76%
Ene 03: External lighting	1	0.76%	1	0.76%
Ene 04: Low carbon design > 1. Passive design : Passive design analysis	1	0.76%	0	0%
Ene 04: Low carbon design > 1. Passive design : Free cooling	1	0.76%	0	0%
Ene 04: Low carbon design > 2. Low and zero carbon technologies	1	0.76%	1	0.76%
Ene 08: Energy efficient equipment	2	1.52%	2	1.52%
Energy Totals	21	16.00%	19	14.48%

Transport: 1 Credit = 0.83%	Available		Targeted	
	Credits	Percent	Credits	Percent
Tra 01: Transport assessment and travel plan	2	1.67%	2	1.67%
Tra 02: Sustainable transport measures	10	8.33%	6	5%
Transport Totals	12	10.00%	8	6.67%

Water: 1 Credit = 0.88%	Available	Targeted
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	Credits	Percent	Credits	Percent
Wat 01: Water consumption	5	4.38%	4	3.5%
Wat 02: Water monitoring	1	0.88%	1	0.88%
Wat 03: Water leak detection > 1. Leak detection system	1	0.88%	0	0%
Wat 03: Water leak detection > 2. Flow control devices	1	0.88%	1	0.88%
Water Totals	8	7.00%	6	5.25%

Materials: 1 Credit = 1.07%	Available		Targeted	
	Credits	Percent	Credits	Percent
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 1. Superstructure	6	6.43%	0	0%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 2. Substructure	1	1.07%	0	0%
Mat 02: Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	1.07%	1	1.07%
Mat 03: Responsible sourcing of construction products > 1. Pre-requisite - Legal and sustainable timber	0	0%	0	0%
Mat 03: Responsible sourcing of construction products > 2. Enabling sustainable procurement	1	1.07%	1	1.07%
Mat 03: Responsible sourcing of construction products > 3. Measuring responsible sourcing	3	3.21%	2	2.14%
Mat 05: Designing for durability and resilience	1	1.07%	1	1.07%
Mat 06: Material efficiency	1	1.07%	1	1.07%
Materials Totals	14	15.00%	6	6.43%

Waste: 1 Credit = 0.67%	Available		Targeted	
	Credits	Percent	Credits	Percent
Wst 01: Construction waste management > 2. Construction resource efficiency	3	2%	3	2%
Wst 01: Construction waste management > 4. Diversion of resources from landfill	1	0.67%	1	0.67%
Wst 02: Use of recycled and sustainably sourced aggregates	1	0.67%	0	0%
Wst 03: Operational waste	1	0.67%	1	0.67%
Wst 05: Adaptation to climate change	1	0.67%	0	0%
Wst 06: Design for disassembly and adaptability > 1. Recommendations	1	0.67%	1	0.67%
Wst 06: Design for disassembly and adaptability > 2. Implementation	1	0.67%	1	0.67%
Waste Totals	9	6.00%	7	4.67%

Land Use and Ecology: 1 Credit = 1%	Available		Targeted	
	Credits	Percent	Credits	Percent
LE 01: Site selection > 1. Previously occupied land	1	1%	1	1%
LE 01: Site selection > 2. Contaminated land	1	1%	0	0%
LE 02: Ecological risks and opportunities > 1. Statutory obligations	0	0%	0	0%
LE 02: Ecological risks and opportunities > 2. Survey and evaluation	1	1%	1	1%
LE 02: Ecological risks and opportunities > 3. Determining ecological outcomes	1	1%	0	0%

LE 03: Managing impacts on ecology > 1. Ecological risks and opportunities	0	0%	0	0%
LE 03: Managing impacts on ecology > 2. Planning and measures on-site	1	1%	0	0%
LE 03: Managing impacts on ecology > 3. Managing negative impacts of the project	2	2%	0	0%
LE 04: Ecological change and enhancement > 1. Managing negative impacts on ecology	0	0%	0	0%
LE 04: Ecological change and enhancement > 2. Change and enhancement of ecology	3	3%	0	0%
LE 04: Ecological change and enhancement > 3. Ecological enhancement	1	1%	0	0%
LE 05: Long term ecological management and maintenance > 1. Statutory obligations, planning and site implementation	0	0%	0	0%
LE 05: Long term ecological management and maintenance > 2. Management and maintenance throughout the project	1	1%	0	0%
LE 05: Long term ecological management and maintenance > 3. Landscape and ecology management plan	1	1%	0	0%
Land Use and Ecology Totals	13	13.00%	2	2.00%

Pollution: 1 Credit = 0.67%	Available		Targeted	
	Credits	Percent	Credits	Percent
Pol 01: Impact of refrigerants > 2. Refrigerant use : Pre-requisite	0	0%	0	0%
Pol 01: Impact of refrigerants > 2. Refrigerant use : Impact of refrigerant	2	1.33%	2	1.33%
Pol 01: Impact of refrigerants > 2. Refrigerant use : Leak detection	1	0.67%	1	0.67%
Pol 02: Local air quality	2	1.33%	2	1.33%
Pol 03: Flood and surface water management > 1. Pre-requisite	0	0%	0	0%
Pol 03: Flood and surface water management > 2. Flood resilience	2	1.33%	2	1.33%
Pol 03: Flood and surface water management > 3. Surface water run-off : Pre-requisite	0	0%	0	0%
Pol 03: Flood and surface water management > 3. Surface water run-off : Rate	1	0.67%	1	0.67%
Pol 03: Flood and surface water management > 3. Surface water run-off : Volume	1	0.67%	1	0.67%
Pol 03: Flood and surface water management > 5. Minimising watercourse pollution	1	0.67%	0	0%
Pol 04: Reduction of night time light pollution	1	0.67%	1	0.67%
Pol 05: Reduction of noise pollution	1	0.67%	1	0.67%
Pollution Totals	12	8.00%	11	7.33%

Innovation: 1 Credit = 1%	Available		Targeted	
	Credits	Percent	Credits	Percent
Inn 01: Innovation	10	10%	0	0%
Man 03: Responsible construction practices > 1. Responsible construction management	1	1%	0	0%
Hea 01: Visual comfort > 1. Daylighting	1	1%	0	0%

Hea 01: Visual comfort > 2. Internal and external lighting	1	1%	0	0%
Hea 02: Indoor air quality	1	1%	0	0%
Hea 06: Security	1	1%	0	0%
Ene 01: Reduction of energy use and carbon emissions > 1. Energy performance	3	3%	0	0%
Ene 01: Reduction of energy use and carbon emissions > 2. Prediction of operational energy consumption : Post-occupancy stage	2	2%	0	0%
Wat 01: Water consumption	1	1%	0	0%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 1. Core building services options appraisal during Concept Design	1	1%	0	0%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 2. LCA and LCC alignment	1	1%	0	0%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 3. Third party verification	1	1%	0	0%
Mat 03: Responsible sourcing of construction products	1	1%	0	0%
Wst 01: Construction waste management > 1. Construction resource efficiency	1	1%	0	0%
Wst 02: Use of recycled and sustainably sourced aggregates	1	1%	0	0%
Wst 05: Adaptation to climate change	1	1%	0	0%
LE 02: Ecological risks and opportunities	1	1%	0	0%
LE 04: Ecological change and enhancement	1	1%	0	0%
Innovation Totals (Up to a maximum of 10 credits)	10	10.00%	0	0.00%
Overall Totals	138	110.00%	92	68.42%

6. CREDIT COMPLIANCE AND EVIDENCE REQUIREMENTS

Project:	23049 - Highgate School, London
Report:	Pre-Assessment Stage
Design Target:	Very Good - 68.42%

Management: 1 Credit = 0.52%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Man 01: Project brief and design 1. Project delivery planning	1	0.52%	1	0.52%	Client	Evidence 1 Design responsibility matrix - Matrix indicating the individual design team members and their respective responsibilities
					Client	Evidence 1 Project roles table - Spreadsheet or data sheet describing the project teams roles
					Developer	Evidence 1 - 2 Communication strategy
					Developer	Evidence 1 - 3 Consultation plan setting out the process and scope of the consultation.
					Developer	Evidence 1 - 3 Communication records
					Client	Evidence 3 Strategic or initial project brief
					Developer	Evidence 3 Final project brief
Man 01: Project brief and design 2. Stakeholder consultation	1	0.52%	1	0.52%	Design Quality Indicator (DQI) Consultant	Evidence 4, 6 Professional specialist reports - Consultation plan setting out the process and scope of the consultation.
					Client	Evidence 5 Professional specialist reports - Strategic or initial project brief
					Client	Evidence 5 Professional specialist reports - Final project brief
					Developer	Evidence 6 Communication records - Evidence demonstrating consultation feedback e.g Meeting minutes, E Mails, reports
					Design Quality Indicator (DQI) Consultant	Evidence 7 Professional specialist reports - Independent third party consultation reports e.g Design Quality Indicator Reports OR

						Achieving Excellence Design Evaluation Toolkit reports
					Client	Evidence 8 Final project brief - Brief should include the formal formal BREEAM Target and any other sustainability targets
Man 01: Project brief and design 3. BREEAM Advisory Professional BREEAM AP (Concept Design)	1	0.52%	0	0%		
Man 01: Project brief and design 3. BREEAM Advisory Professional BREEAM AP (Developed Design)	1	0.52%	0	0%		
Man 02: Life cycle cost and service life planning 1. Elemental life cycle cost (LCC)	2	1.05%	0	0%		
Man 02: Life cycle cost and service life planning 2. Component level life options appraisal	1	0.52%	0	0%		
Man 02: Life cycle cost and service life planning 3. Capital cost reporting	1	0.52%	1	0.52%	Quantity Surveyor	Evidence 6 Predicted capital costs of the building in £/m2 GIFA
					BREEAM Assessor	Evidence 6 Predicted capital costs via BREEAM Projects.
Man 03: Responsible construction practices 1. Pre-requisite - Legal and sustainable timber	0	0%	0	0%	Contractor	Evidence 1 Communication records - Written commitment or specification confirming all timber will be legal and sustainable.
Man 03: Responsible construction practices 3. Environmental management	1	0.52%	1	0.52%	Contractor	Evidence 3 A copy of the third party certified EMS, to ISO 14001: 2015(16), EMAS (EU Eco-Management and Audit Scheme) or equivalent standard
					Contractor	Evidence 3 Evidence of compliance with BS 8555: 2016 e.g A copy of the Phase 4 audit
					Contractor	Evidence 4 Communication Records - e.g Evidence of PPG

						procedures such as toolbox talks and signed site handouts
Man 03: Responsible construction practices 4. BREEAM Advisory Professional (Site)	1	0.52%	1	0.52%	Client	Evidence 5 Communication records - Contractual confirmation of the agreed BREEAM performance targets
					BREEAM Advisory Professional	Evidence 6 Communication records - BREEAM AP appointment letter and scope for RIBA stage 5 (Construction Stage)
					BREEAM Advisory Professional	Evidence 6 Communication records throughout RIBA stage 5 (Construction Stage) - BREEAM Advisory Professional reports, Meeting minutes etc
Man 03: Responsible construction practices 5. Responsible construction management	2	1.05%	2	1.05%	Project Manager	Evidence 7 Communication records - Written commitment to achieve items s listed as required for one credit in Table 4.1 Responsible construction management items
					Project Manager	Evidence 9 Communication records - Written commitment to achieve Evidence 7 requirements, in addition achieve six additional items in table 4.1
					Project Manager	Evidence 23 Communication records - Written commitment to achieve ALL items listed in Table 4.1 Responsible construction management items
					Project Manager	Evidence 7, 9 and 23 Project Strategy - e.g Site and design operational procedures detailing how items listed in table 4.1 are to be managed
Man 03: Responsible construction practices 6. Monitoring of construction site impacts Pre-requisite	0	0%	0	0%	Project Manager	Evidence 10 Communication records - Written instruction or appointment of suitably qualified individual to monitor site impacts and manage the processes
Man 03: Responsible construction practices	1	0.52%	1	0.52%	BREEAM Assessor	Evidence 11 and 15

6. Monitoring of construction site impacts Utility consumption						Evidence demonstrating that criteria 10 has been completed on previous credit
					Project Manager	Evidence 12 Communication records - e.g Detailed consumption targets based on recognised estimates such as KPI benchmarks
					Site Manager	Evidence 13 Communication records - Recorded energy consumption data as described in criterion 12
					BREEAM Assessor	Evidence 14 Professional specialist reports - BREEAM reporting tool
					BREEAM Assessor	Evidence 15 Evidence demonstrating that criteria 10 has been completed on previous credit
					Project Manager	Evidence 16 Communication records - e.g Detailed consumption targets based on recognised estimates such as KPI benchmarks
					Site Manager	Evidence 17 Communication records - Recorded potable water consumption data as described in criterion 16
					BREEAM Assessor	Evidence 18 Professional specialist reports - BREEAM reporting tool
Man 03: Responsible construction practices 6. Monitoring of construction site impacts Transportation of construction materials and waste	1	0.52%	1	0.52%	Project Manager	Evidence 19 Evidence demonstrating that criteria 10 has been completed on previous credit
					Project Manager	Evidence 20 Communication records - e.g Detailed transport targets based on recognised estimates such as KPI benchmarks
					Site Manager	Evidence 21 Communication records - Recorded transport data as described in criterion 20
					BREEAM Assessor	Evidence 22

						Professional Specialist Reports - BREEAM reporting tool
Man 04: Commissioning and handover 1. Commissioning - testing schedule and responsibilities	1	0.52%	1	0.52%	ME Engineer	Evidence 1 and 2 Project programme - Programme should show commissioning stages
					ME Manager	Evidence 1 and 2 Schedule of services - e.g Written commitment/confirmation of commissioned activities and commissioning standards to be completed
					ME Engineer	Evidence 3 Schedule of services - e.g Written commitment/confirmation of commissioned activities and commissioning standards specific to the BMS
					ME Engineer	Evidence 4 Communication records - Written instruction appointing appropriate team member to monitor and programme commissioning and testing on behalf of client
					Contractor	Evidence 5 Project programme - Main contractors programme showing commissioning and testing programme
Man 04: Commissioning and handover 2. Commissioning - design and preparation	1	0.52%	1	0.52%	ME Engineer	Evidence 6 Evidence demonstrating that criteria 1-5 has been completed on previous credit
					Commissioning Manager	Evidence 7 Communication records - Written instruction appointing appropriate team member not involved in the general installation to manage and review commissioning
					Commissioning Manager	Evidence 7 Project programme - Programme should show commissioning stages
					Commissioning Manager	Evidence 7 Communication records - Commissioning management records
	1	0.52%	1	0.52%	ME Engineer	Evidence 8

Man 04: Commissioning and handover 3. Testing and inspecting building fabric						Evidence demonstrating that criteria 1-5 has been completed on previous credit
					Thermographic Survey Consultant	Evidence 8 and 9 Communication records - Appointment of suitably qualified thermographer to undertake thermographic survey
					Contractor	Evidence 8 and 9 Communication records - Commitment from contractor/client to rectify any defects highlighted by the thermographic survey
Man 04: Commissioning and handover 4. Handover	1	0.52%	1	0.52%	Contractor	Evidence 11 Communication records - A written commitment to develop a Building user Guide in line with the requirements
					Contractor	Evidence 11 Communication records - Draft Building User guide with any user comments OR approved Building User Guide
					Contractor	Evidence 12 Project programme - Programme showing training schedule
					Contractor	Evidence 12 Schedule of services - A copy of the training schedule
Man 05: Aftercare 1. Aftercare support	1	0.52%	1	0.52%	Contractor	Evidence 1 Communication records - A written commitment/contract to provide aftercare support and training
					Client	Evidence 2 Communication records - A written commitment to collect and monitor energy and water consumption for 12 months and review accordingly
Man 05: Aftercare 2. Commissioning - implementation	1	0.52%	1	0.52%	ME Engineer	Evidence 3 Communication records - A written commitment to provide seasonal commissioning over minimum 12 months post occupation

Man 05: Aftercare 3. Post Occupancy Evaluation (POE)	1	0.52%	1	0.52%	Design Quality Indicator (DQI) Consultant	Evidence 4 Communication records - A written commitment to complete a post occupancy evaluation undertaken by an independent party
					Design Quality Indicator (DQI) Consultant	Evidence 5 and 7 Communication records - Written instruction appointing independent DQI to carry out Post Occupancy Evaluation
					Design Quality Indicator (DQI) Consultant	Evidence 6 Professional specialist reports - Report of feedback and lessons learnt from independent party
					Design Quality Indicator (DQI) Consultant	Evidence 7 Professional specialist reports - DQI schedule of responsibilities in line with BREEAM requirements
Management Totals	21	11.00%	16	8.38%		

Health and Wellbeing: 1 Credit = 0.78%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Hea 01: Visual comfort 1. Control of glare from sunlight control	1	0.78%	1	0.78%	Architect	Evidence 1, 2 and 3 Construction specification - Demonstrating building design to design out glare OR control it
					Architect	Evidence 1, 2 and 3 Design drawings - Drawings demonstrating building design to design out glare OR control it
					Architect	Evidence 1, 2 and 3 Feasibility study - e.g Study or building simulation demonstrating glare control strategy
Hea 01: Visual comfort 2. Daylighting	2	1.56%	2	1.56%	Architect	Evidence 4 Design drawings - Floor plans and elevations showing all window openings
					Daylighting Consultant	Evidence 4 Professional specialist reports - Daylighting calculations
Hea 01: Visual comfort 3. View out	1	0.78%	1	0.78%	Architect	Evidence 5-6 Design drawings - Floor plans and elevations clearly showing windows

						and demonstrating view out of the building from relevant building areas
Hea 01: Visual comfort 4. Internal and external lighting levels, zoning and control	1	0.78%	1	0.78%	ME Engineer	Evidence 7 and 8 Project Strategy - Lighting strategy
					ME Engineer	Evidence 7 and 8 Construction specification Lighting specification
					ME Engineer	Evidence 7 and 8 Design drawings - Lighting drawings
					ME Engineer	Evidence 9 and 10 Project Strategy - Lighting strategy
					ME Engineer	Evidence 9 and 10 Construction specification Lighting specification
					ME Engineer	Evidence 9 and 10 Design drawings - Lighting drawings
					ME Engineer	Evidence 11-13 Project Strategy - Lighting Strategy
					ME Engineer	Evidence 11-13 Construction specification - Lighting specification
					ME Engineer	Evidence 11-13 Design drawings - Lighting drawings
					ME Engineer	Evidence 15 Construction specification - Dimmer strategy/specification
Hea 02: Indoor air quality 1. Pre-requisite	0	0%	0	0%	ME Engineer	Evidence 1 Professional specialists report - Indoor air quality plan
Hea 02: Indoor air quality 2. Ventilation	1	0.78%	1	0.78%	ME Engineer	Evidence 2 Design drawings - Drawings demonstrating ventilation strategy
					ME Engineer	Evidence 2 Construction specification - Specification detailing the ventilation strategy
Hea 02: Indoor air quality 3. Emissions from construction products	2	1.56%	2	1.56%	Architect	Evidence 3-4 and 11 Construction specification - Specification detailing VOC testing and emission levels of products used
					Architect	Evidence 3-4 and 11

						Communication records - Manufacturers confirmation of product testing and VOC levels
					Architect	Evidence 3-4 and 11 Certificates of compliance (Third Party) - Manufacturer certification for VOC testing
Hea 02: Indoor air quality 4. Post-construction indoor air quality measurement	1	0.78%	1	0.78%	VOC Survey	Evidence 5-8 Communication records - Written commitment to undertake VOC and formaldehyde testing post construction
					VOC Survey	Evidence 5-8 Communication records - Appointment of specialist VOC testing consultant
					Contractor	Evidence 9 Communication records - Written commitment to reduce the TVOC to within limits should levels exceed limits
Hea 04: Thermal comfort 1. Thermal modelling	1	0.78%	1	0.78%	Energy Consultant	Evidence 1 Professional specialist reports - AM11 Thermal comfort model
					Energy Consultant	Evidence 2 Professional specialist report - Thermal comfort analysis for less complex buildings
					Energy Consultant	Evidence 3 Professional specialist report - Thermal comfort report detailing thermal analysis and findings
					BREEAM Assessor	Evidence 4 Professional Specialist Reports - BREEAM reporting tool
Hea 04: Thermal comfort 2. Design for future thermal comfort	1	0.78%	1	0.78%	Energy Consultant	Evidence 5 Evidence demonstrating that criteria 1-4 has been completed on previous credit
					Energy Consultant	Evidence 6 Professional specialist reports - AM11 Thermal comfort model
					Energy Consultant	Evidence 6 Professional specialist report - Thermal comfort

						analysis for less complex buildings
					ME Engineer	Evidence 7 Communication records - Strategy demonstrating building adaption solutions for passive design solutions (Assuming criterion 6 is not met)
					BREEAM Assessor	Evidence 8 Professional Specialist Reports - BREEAM reporting tool
Hea 04: Thermal comfort 3. Thermal zoning and controls	1	0.78%	1	0.78%	Energy Consultant	Evidence 9 Evidence demonstrating that criteria 1-4 has been completed on previous credit
					ME Engineer	Evidence 10 Communication records - Evidence confirming that the thermal modelling has informed the temperature control strategy
					ME Engineer	Evidence 11 Design drawings - Thermal zoning drawings
					ME Engineer	Evidence 11 Construction specification - Thermal zoning specification and strategy
Hea 05: Acoustic performance 1. Sound insulation	1	0.78%	1	0.78%	Acoustic Engineer	Evidence 1 and 3 Professional specialist reports - Acoustic reports
					Acoustic Engineer	Evidence 2 Communication records - Appointment letter or instruction of Suitably Qualified Acoustician
					Acoustic Engineer	Evidence 1, 2 and 3 Design drawings - Drawings showing any acoustic measures/attenuation requirements if applicable
Hea 05: Acoustic performance 2. Indoor ambient noise level	1	0.78%	1	0.78%	Acoustic Engineer	Evidence 1 and 3 Professional specialist reports - Acoustic reports
					Acoustic Engineer	Evidence 2 Communication records - Appointment letter or instruction of Suitably Qualified Acoustician

					Acoustic Engineer	Evidence 1, 2 and 3 Design drawings - Drawings showing any acoustic measures/attenuation requirements if applicable
Hea 05: Acoustic performance 3. Room acoustics	1	0.78%	1	0.78%	Acoustic Engineer	Evidence 1 and 3 Professional specialist reports - Acoustic reports
					Acoustic Engineer	Evidence 2 Communication records - Appointment letter or instruction of Suitably Qualified Acoustician
					Architect	Evidence 1, 2 and 3 Design drawings - Drawings showing any acoustic measures/attenuation requirements if applicable
Hea 06: Security	1	0.78%	1	0.78%	Security Consultant	Evidence 1 Communication records - Appointment letter or instruction of Suitably Qualified Security Specialist (SQSS)
					Security Consultant	Evidence 2 Professional specialist reports - Suitably Qualified Security Specialists reports and recommendations
					Architect	Evidence 3 Design drawings/Construction specifications - Drawings/specifications showing security measures e.g security barriers, cctv, impact bollards, fencing etc
					Security Consultant	Evidence 4 Professional specialist report - Compliant risk based security rating where an independent assessment has been completed
Hea 07: Safe and healthy surroundings 1. Safe access	1	0.78%	0	0%		
Hea 07: Safe and healthy surroundings 2. Outside space	1	0.78%	1	0.78%	Landscape Architect	Evidence 7 Design drawings - Drawings detailing outside amenity space

Health and Wellbeing Totals	18	14.00%	17	13.22%		
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Energy: 1 Credit = 0.76%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Ene 01: Reduction of energy use and carbon emissions 1. Energy performance	9	6.86%	9	6.86%	Energy Consultant	Evidence 1 Professional specialist reports - A copy of the building regulations output document from the approved software. The output documents must be based on the design stage of analysis.
					Energy Consultant	Evidence 1 Professional specialist reports - A copy of the building regulations output document from the design stage SAP calculations (where relevant for multi-residential buildings).
					BREEAM Assessor	Evidence 1 Professional Specialist Reports - BREEAM reporting tool
					Energy Consultant	Evidence all Communication records - Confirmation of energy modellers qualifications and experience.
					Energy Consultant	Evidence 6-9 Professional specialist reports - Report detailing the following 1. The total carbon neutral energy generation (kWh/yr) 2. The source of the carbon neutral energy 3. Calculated estimate of energy consumption from unregulated systems or process (kWh/yr) (only required if confirming zero regulated carbon or carbon negative exemplary credits) 4. Calculated estimate of exported energy surplus (only required if

						confirming carbon negative status).
Ene 01: Reduction of energy use and carbon emissions 2. Prediction of operational energy consumption	4	3.05%	4	3.05%	Project Manager	Evidence 2 Communication records - Workshop minutes, agreed outcomes.
					Energy Consultant	Evidence 3-5 Professional specialist reports - Predicted energy consumption values, design assumptions, input data and risk assessments reported as detailed in the 'Energy Prediction and Post-occupancy' document.
					Energy Consultant	Evidence 3-5 Communication records - Confirmation of energy modeller's qualifications and experience.
					BREEAM Assessor	Evidence 10 Evidence that maximum credits have been achieved under credit Ene 02.
					Client	Evidence 11 Communication records - The client's commitment to proceed to the Post-occupancy stage and report the energy consumption via a qualified energy assessor
Ene 02: Energy monitoring 1. Sub-metering of end use categories	1	0.76%	1	0.76%	ME Engineer	Evidence 1-3 Construction specification - Energy metering specification/strategy
					ME Engineer	Evidence 1-3 Design drawings - Drawings showing metering schematic
					ME Engineer	Evidence 3 Other third part information - Manufacturer information for the meters and OR meter labeling information
Ene 02: Energy monitoring 2. Sub-metering of high energy load and tenancy areas	1	0.76%	1	0.76%	ME Engineer	Evidence 4-5 Construction specification - Energy metering specification/strategy
					ME Engineer	Evidence 4-5

						Design drawings - Drawings showing metering schematic
					ME Engineer	Evidence 4-5 Other third part information - Manufacturer information for the meters and OR meter labeling information
Ene 03: External lighting	1	0.76%	1	0.76%	ME Engineer	Evidence 1 Communication records - Confirmation in writing that no external lighting (which includes lighting on the building, at entrances and signs) is present
					ME Engineer	Evidence 2 Construction specification - Lighting specifications
					ME Engineer	Evidence 2 Design drawings - Lighting schematic drawings
					ME Engineer	Evidence 2 Design drawings - Illuminance maps
					ME Engineer	Evidence 2 Construction specification - Lighting control specification/strategy
Ene 04: Low carbon design 1. Passive design Passive design analysis	1	0.76%	0	0%		
Ene 04: Low carbon design 1. Passive design Free cooling	1	0.76%	0	0%		
Ene 04: Low carbon design 2. Low and zero carbon technologies	1	0.76%	1	0.76%	Energy Consultant	Evidence 9-10 Professional specialist reports - LZC report completed by Suitably Qualified Energy Specialist
					ME Engineer	Evidence 11 Design drawings - Drawings showing LZC technology
					ME Engineer	Evidence 11 Construction specification - Specification of LZC to be installed

					Energy Consultant	Evidence 12 Professional specialist reports - Dynamic simulation model demonstrating CO ₂ -eq emissions from the specified LZC technology
Ene 08: Energy efficient equipment	2	1.52%	2	1.52%	ME Engineer	Evidence 1 Professional specialist report - Report detailing the buildings unregulated energy consuming loads and estimation of the total annual unregulated energy consumption of the building
					ME Engineer	Evidence 2 Professional specialist report - Evidence detailing the systems or processes that consume a significant proportion of the buildings unregulated energy consumption
					ME Engineer	Evidence 3 Professional specialist report - Report detailing the meaningful reduction in total annual unregulated energy consumption of the building (See table 6.5)
Energy Totals	21	16.00%	19	14.48%		

Transport: 1 Credit = 0.83%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Tra 01: Transport assessment and travel plan	2	1.67%	2	1.67%	Transport Consultant	Evidence 1 - 2 Professional specialist reports - Site specific Transport Assessment or Statement and draft Travel Plan covering items A-G
					Transport Consultant	Evidence 3 Professional specialist reports - Site specific Travel Plan
					Architect	Evidence 4 Design drawings - Drawings detailing any travel plan measures
					Project Manager	Evidence 4 Construction specification - Specification detailing travel plan measures to be incorporated

					Client	Evidence 4 - 5 Communication records - If occupier known written confirmation required indicating that travel plan findings will be implemented											demonstrating an AI increase over existing
Tra 02: Sustainable transport measures	10	8.33%	6	5%	BREEAM Assessor	Evidence 1 Evidence demonstrating that criteria 3-5 in the Tra 01 Transport assessment and travel plan credit have been achieved.										Architect	Evidence 3 Assessment option 3 Construction specification - Specification detailing public transport information and signage
					Project Manager	Evidence 2 Feasibility study - Evidence identifying the potential sustainable transport measures see table 7.4										ME Engineer	Evidence 3 Assessment option 4 Construction specification - Specification detailing electric charging stations with a minimum 3kW capacity for 10% of total parking
					Transport Consultant	Evidence 3 Other third party information - Transport information and timetables to enable completion of the TRA 01 calculation tool determining the sites Accessibility Index										Client	Evidence 3 Assessment option 5 Communication records - Evidence demonstrating a car sharing group or documentation encouraging car sharing
					BREEAM Assessor	Evidence 3 Professional specialist reports - A copy of the completed TRA01 calculation tool										Architect	Evidence 3 Assessment option 5 Design drawings - Drawings showing priority car spaces for car sharing scheme (5% of total car parking) and spaces should be located nearest the entrance
					Transport Consultant	Evidence 3 Other third party information - A copy of the sites PTAL and AI report as generated by the TFL website (London based sites only)										Transport Consultant	Evidence 3 Assessment option 6 Communication records - During RIBA stage 1 evidence demonstrating liaison with the Local Authority regarding the existing cycle network and transport infrastructure and how it can be improved
					Transport Consultant	Evidence 3 <u>Assessment option 2</u> Communication records - Evidence demonstrating increase in frequency of transport services										Transport Consultant	Evidence 3 Assessment option 6 Communication records - Evidence demonstrating that at least one discussed proposition is implemented and makes a significant impact on the cycle network
					Transport Consultant	Evidence 3 <u>Assessment option 2</u> Communication records - Evidence demonstrating that a dedicated bus service is provided											Transport Consultant
					Transport Consultant	Evidence 3 Assessment option 2 Professional specialist reports - A copy of the updated TRA01 calculation tool										Project Manager	Evidence 3 Assessment option 7 Construction specification - Evidence

						demonstrating the provision of <u>compliant</u> cycle spaces in line with table 7.5
					Project Manager	Evidence 3 Assessment option 8 Evidence demonstrating that option 7 has been achieved
					Project Manager	Evidence 3 Assessment option 8 Construction specification - Evidence demonstrating the specification of at least two <u>compliant</u> cycle facilities as per the BREEAM definition. Compliant facilities include - • Showers • Changing facilities • Lockers • Drying spaces
					Architect	Evidence 3 Assessment option 9 Other third party information - Evidence in the form of maps, photos etc demonstrating that at least three existing amenities are present for the particular building group. See table 7.6
					Project Manager	Evidence 3 Assessment option 10 Other third party information - Evidence demonstrating that additional new amenities are provided. See table 7.6
					Project Manager	Evidence 3 Assessment option 11 Other third party information - Evidence demonstrating that one specific improvement measure has been implemented not covered by options 1-10 in line with the recommendations of the travel plan
Transport Totals	12	10.00%	8	6.67%		

Water: 1 Credit = 0.88%	Available	Targeted	Responsibility	Evidence
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	Credits	Percent	Credits	Percent	Role	
Wat 01: Water consumption	5	4.38%	4	3.5%	BREEAM Assessor	Evidence 1 and 2 Professional specialist reports - A completed copy of the BREEAM Wat 01 calculator
					Architect	Evidence 1 and 2 Design drawings - Drawings detailing location and number of water fittings
					ME Engineer	Evidence 1 and 2 Construction specification - Specification detailing the potable water consuming items, their flow rates and numbers.
					ME Engineer	Evidence 1 and 2 Construction specification - Manufacturers Specification detailing the potable water consuming items and their flow rates
					ME Engineer	Evidence 3 Professional specialist report - Greywater OR rainwater calculations and specification detailing yield L/person/day to offset potable water demand from components
					ME Engineer	Evidence 4 Communication records - Confirmation that the greywater systems are in compliance with BS 8525-1:2010
					ME Engineer	Evidence 5 Construction specification - For healthcare building types only evidence demonstrating that the flush control for WC or urinal is suitable for frail or inform hands or is activated by electronic sensors
					ME Engineer	Evidence 6 Construction specification - For prison buildings evidence demonstrating the sanitary components are

						fitted with volume controllers
					BREEAM Assessor	Evidence 7 Evidence that criteria 1 - 4 has been achieved
					ME Engineer	Evidence 8 Professional specialist reports - Calculations demonstrating a 65% potable water improvement as specified in the exemplary performance level for the credit
Wat 02: Water monitoring	1	0.88%	1	0.88%	ME Engineer	Evidence 1, 3 and 6 Construction specification - Specification demonstrating metering strategy
					ME Engineer	Evidence 1, 3 and 6 Design drawings - Drawings demonstrating metering strategy e.g Metering schematics
					ME Engineer	Evidence 1, 3 and 6 Other third party information - Manufacturers information detailing the meters to be used
					ME Engineer	Evidence 3 Construction specification - Specification of BMS/Open protocol and connection strategy
					ME Engineer	Evidence 4 Construction specification - Specification detailing separate water meters for buildings with swimming pools, large water tanks or aquariums
					ME Engineer	Evidence 5 Construction specification - Specification detailing separate water meters for buildings with laboratories
Wat 03: Water leak detection 1. Leak detection system	1	0.88%	0	0%		
Wat 03: Water leak detection 2. Flow control devices	1	0.88%	1	0.88%	ME Engineer	Evidence 3 Construction specification -

						Specification of PIR and solenoid system to be installed
					ME Engineer	Evidence 3 Other third party information - Manufacturers information of IPIR and solenoid to be installed
					ME Engineer	Evidence 3 Design drawings - Water schematics showing presence of PIR and solenoid shut off valves
Water Totals	8	7.00%	6	5.25%		

Materials: 1 Credit = 1.07%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) 1. Superstructure	6	6.43%	0	0%		
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) 2. Substructure	1	1.07%	0	0%		
Mat 02: Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	1.07%	1	1.07%	Architect	Evidence all Other third party information - Spreadsheet providing description and quantity (m2 OR m3) data to enable completion of Mat 01/02 tool
					Architect	Evidence all Other third party information - Copies of EPD (Environmental Product Declaration) certificates
					Contractor	Evidence all Other third party information - Copies of EPD (Environmental Product Declaration) certificates
					BREEAM Assessor	Evidence 1 Professional specialist reports - The Mat 01/02 Results Submission Tool
Mat 03: Responsible sourcing of construction products	0	0%	0	0%	Architect	Evidence 1 Construction specification - Specification highlighting

1. Pre-requisite - Legal and sustainable timber						specification of timber and timber-based products are 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy (TPP)
					Architect	Evidence 1 Other third party information - Responsibly sourced timber certification such as FSC, PEFC
Mat 03: Responsible sourcing of construction products 2. Enabling sustainable procurement	1	1.07%	1	1.07%	Architect	Evidence 2 Professional specialist reports - Sustainable procurement plan (in line with BREEAM requirements)
Mat 03: Responsible sourcing of construction products 3. Measuring responsible sourcing	3	3.21%	2	2.14%	Architect	Evidence 3 Construction specification - Project specification detailing material descriptions and general construction
					Architect	Evidence 3 Other third party information - Spreadsheet providing description and quantity (m³ OR kg) data to enable completion of Mat 03 tool
					Architect	Evidence 3 Other third party information - Evidence of level of responsible sourcing achieved for each construction product. For example, certificates.
					Architect	Evidence all Design drawings - Drawings to provide evidential support of construction specifications provided
					Structural Engineer	Evidence all Design drawings - Drawings to provide evidential support of construction specifications provided
	1	1.07%	1	1.07%	BREEAM Assessor	Evidence 3 Professional specialist reports - Completed copy of the Mat 03 Calculator tool
	1	1.07%	1	1.07%	Architect	Evidence 1

Mat 05: Designing for durability and resilience						Construction specification - Construction specification detailing durability and resilience measures
					Architect	Evidence 1 Design drawings - Drawings showing durability and resilience measures
					Architect	Evidence 1 Communication records - Description of durability and resilience measures specified
					Architect	Evidence 2 Professional specialist report - Durability and resilience report covering key and exposed building elements
					Architect	Evidence 3 Design drawings - Drawings demonstrating convenient access to the roof to facilitate cost effective cleaning, repair and renewal
Mat 06: Material efficiency	1	1.07%	1	1.07%	Architect	Evidence 4 Construction specification - Specification detailing the roof construction and description of its waterproofing strategy
					Architect	Evidence all Professional specialist reports - Material efficiency report reviewing the chosen material choices at each of the RIBA stages detailed
					Project Manager	Evidence 2 Communication records - Meeting minutes, Action logs, Letters, E mails etc demonstrating the discussion and implementation of material efficiency actions
					Project Manager	Evidence 3 Communication records - Report detailing the material efficiencies achieved as part of the

						discussions and actions from RIBA 1 to construction choices
Materials Totals	14	15.00%	6	6.43%		

Waste: 1 Credit = 0.67%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Wst 01: Construction waste management 2. Construction resource efficiency	3	2%	3	2%	Contractor	Evidence all Professional specialist report - A copy of the Resource Management Plan detailing predicted waste arising
Wst 01: Construction waste management 4. Diversion of resources from landfill	1	0.67%	1	0.67%	Contractor	Evidence 6 - 7 Professional specialist report - A copy of the Resource Management Plan detailing predicted waste arising and recycling/waste diversion predictions
Wst 02: Use of recycled and sustainably sourced aggregates	1	0.67%	0	0%		
Wst 03: Operational waste	1	0.67%	1	0.67%	Architect	Evidence 1-2 Construction specification - Specification detailing waste and recycling strategy
					Architect	Evidence 1, 2 and 7 Design drawings - Drawings detailing location, sizing and type of waste storage
					Architect	Evidence 2 Construction specification - Specification detailing waste compactor, composting, water outlet (where applicable)
					Architect	Evidence 3 (Healthcare buildings only) Communication records - Confirmation that operational waste facilities are compliant with NHS guidelines
					Architect	Evidence 4-5 (Multi-residential buildings with self-contained dwellings or bedsits only) Construction specification -

						Specification detailing internal storage containers for each dwelling and composting facilities
					Architect	Evidence 5, 8 (Multi-residential buildings with self-contained dwellings or bedsits OR individual bedrooms and communal facilities) Communication records - Evidence confirming that home composting information leaflet will be provided for each dwelling OR within kitchen or communal space in the case of individual bedroom facilities
					Architect	Evidence 6 (Multi-residential buildings with individual bedrooms and communal facilities) Construction specification - Specification detailing internal storage containers for each dwelling in line with item 4a and 4b.
					Architect	Evidence 7 (Multi-residential buildings with individual bedrooms and communal facilities) Communication records - Evidence confirming that home composting information leaflet will be provided within kitchen OR communal space
					Architect	Evidence 9 (Multi-residential buildings with individual bedrooms and communal facilities) Construction specification - Specification detailing minimum internal storage for composting facilities
Wst 05: Adaptation to climate change	1	0.67%	0	0%		

Wst 06: Design for disassembly and adaptability 1. Recommendations	1	0.67%	1	0.67%	Architect	Evidence All Professional specialist reports - Disassembly and functional adaptability study
Wst 06: Design for disassembly and adaptability 2. Implementation	1	0.67%	1	0.67%	Architect	Evidence 3 Evidence demonstrating that criteria 1 and 2 has been completed on previous credit
					Architect	Evidence 4 Professional specialist reports - Implementation plan report
					Architect	Evidence 5 Professional specialist reports - Building adaptability and disassembly guide
Waste Totals	9	6.00%	7	4.67%		

Land Use and Ecology: 1 Credit = 1%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
LE 01: Site selection 1. Previously occupied land	1	1%	1	1%	Architect	Evidence 1 Design drawings - Existing site drawings or topographical survey showing extent of previously occupied land
					Architect	Evidence 1 Design drawings - Drawings showing proposed development
					Architect	Evidence 1 Communication records - Calculation of existing previously built area and proposed development area
LE 01: Site selection 2. Contaminated land	1	1%	0	0%		
LE 02: Ecological risks and opportunities 1. Statutory obligations	0	0%	0	0%		Evidence All Professional specialist reports - Completed Guidance Note 40: BREEAM, CEEQUAL, HQM Ecology Assessment Issues Reporting Template.
					Project Manager	Evidence 1 Communication records - Confirmation that ecology compliance is in line with all UK and EU legislation
LE 02: Ecological risks and opportunities	1	1%	1	1%		Evidence All (Routes 1 and 2)

2. Survey and evaluation						Professional specialist reports - Completed Guidance Note 40: BREEAM, CEEQUAL, HQM Ecology Assessment Issues Reporting Template.
					Project Manager	Evidence 2 (Route 1) Professional specialist reports - Completed Guidance Note 34: BREEAM, CEEQUAL and HQM Ecology Risk Evaluation Checklist.
					Project Manager	Evidence 3 (Route 2) Communication records - Appointment documentation to confirm appointment of suitably qualified ecologist
					Ecologist	Evidence 3-5 (Route 2) Professional specialist reports - A copy of the Ecological Survey and Evaluation document. Note: A phase 1 habitat assessment or other equivalent type of assessment can act as acceptable evidence as long as it can be shown that they cover the content of the assessment criteria.
					Project Manager	Evidence 5 (Route 2) Communication records - Evidence that ecological data and search records shared with design team e.g minutes, e mails etc
LE 02: Ecological risks and opportunities 3. Determining ecological outcomes	1	1%	0	0%		
LE 03: Managing impacts on ecology 1. Ecological risks and opportunities	0	0%	0	0%		Evidence All (Routes 1 and 2) Professional specialist reports - Completed Guidance Note 40: BREEAM, CEEQUAL, HQM Ecology Assessment Issues Reporting Template.

					Project Manager	Evidence 1 Evidence demonstrating that credit LE 02 has been achieved
LE 03: Managing impacts on ecology 2. Planning and measures on-site	1	1%	0	0%		
LE 03: Managing impacts on ecology 3. Managing negative impacts of the project	2	2%	0	0%		
LE 04: Ecological change and enhancement 1. Managing negative impacts on ecology	0	0%	0	0%		Evidence All (Routes 1 and 2) Professional specialist reports - Completed Guidance Note 40: BREEAM, CEEQUAL, HQM Ecology Assessment Issues Reporting Template.
					BREEAM Assessor	Evidence 1 (Route 1) Evidence demonstrating that Criterion 6 in credit LE 03 has been completed.
					BREEAM Assessor	Evidence 1 (Route 2) Evidence demonstrating that Criterion 8 in credit LE 03 has been completed.
					Client	Evidence 2 (Route 1 and 2) Communication records - Confirmation that all ecological compliance is monitored against all relevant EU and UK legislation
					Contractor	Evidence 2 (Route 1 and 2) Communication records - Confirmation that all ecological compliance is monitored against all relevant EU and UK legislation
LE 04: Ecological change and enhancement 2. Change and enhancement of ecology	3	3%	0	0%		
LE 04: Ecological change and enhancement 3. Ecological enhancement	1	1%	0	0%		
	0	0%	0	0%		Evidence 1

LE 05: Long term ecological management and maintenance 1. Statutory obligations, planning and site implementation						(Route 1 and 2) Communication records - Confirmation that all ecological compliance is monitored against all relevant EU and UK legislation
					Client	Evidence 1 (Route 1 and 2) Communication records - Confirmation that all ecological compliance is monitored against all relevant EU and UK legislation
					BREEAM Assessor	Evidence 2 (Route 1) Evidence demonstrating that Criterion 6 in LE 03 has been achieved.
					BREEAM Assessor	Evidence 2 (Route 2) Evidence demonstrating that Criterion 8 in LE 03 has been achieved.
					BREEAM Assessor	Evidence 2 (Route 2) Evidence demonstrating that at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been achieved.
LE 05: Long term ecological management and maintenance 2. Management and maintenance throughout the project	1	1%	0	0%		
LE 05: Long term ecological management and maintenance 3. Landscape and ecology management plan	1	1%	0	0%		
Land Use and Ecology Totals	13	13.00%	2	2.00%		

Pollution: 1 Credit = 0.67%	Available		Targeted		Responsibility Role	Evidence
	Credits	Percent	Credits	Percent		
Pol 01: Impact of refrigerants 2. Refrigerant use Pre-requisite	0	0%	0	0%		
Pol 01: Impact of refrigerants 2. Refrigerant use Impact of refrigerant	2	1.33%	2	1.33%	ME Engineer	Evidence 3, 4 and 5 Construction specification - Specification of

						refrigeration systems detailing sufficient information to enable the completion of the POL 1 calculation tool
					BREEAM Assessor	Evidence 3, 4 and 5 Professional specialist reports - Completed copy of the Pol 01 Calculator tool
Pol 01: Impact of refrigerants 2. Refrigerant use Leak detection	1	0.67%	1	0.67%	ME Engineer	Evidence 6 Construction specification - Refrigeration system specification detailing a hermetically sealed unit or benign refrigerants
					ME Engineer	Evidence 6 Other third party information - Manufacturers refrigeration system specification detailing a hermetically sealed unit or benign refrigerants
					ME Engineer	Evidence 7 Construction specification - Specification detailing leak detection within the refrigeration system
					ME Engineer	Evidence 7 Construction specification - Manufacturers specification detailing leak detection within the refrigeration system
Pol 02: Local air quality	2	1.33%	2	1.33%	ME Engineer	Evidence 1 Communication records - Confirmation in writing that all heating and hot water systems are powered solely non combustion systems. e.g By electricity
					ME Engineer	Evidence 1 & 2 Communication records - Confirmation in writing of manufacturer and model numbers of heating and hot water systems
					ME Engineer	Evidence 2 Other third party information - Manufacturer specifications of heating and hot water systems

						detailing emission levels in line with EU directive 2009/125 EC
Pol 03: Flood and surface water management 1. Pre-requisite	0	0%	0	0%	Project Manager	Evidence 1 Communication records - Confirmation in writing that a Suitably Qualified Consultant has been appointed to review flood and surface water OR Appointment letter confirming above
Pol 03: Flood and surface water management 2. Flood resilience	2	1.33%	2	1.33%	Flood Risk Assessment (FRA) Specialist	Evidence 2, 3 and 4 Professional specialist reports - Site specific Flood Risk Assessment with recommendations if applicable completed by Suitably Qualified Consultant
					Civil Engineer	Evidence 2, 3 and 4 Design drawings - Full drainage drawings
					Civil Engineer	Evidence 2, 3 and 4 Construction specifications - Full drainage calculations
					Civil Engineer	Evidence 4 Design drawings - Drawings indicating levels 600mm above the designed flood levels
					Civil Engineer	Evidence 4 Design drawings - Drawings confirming design measures in line with FRA recommendations and in line with BS 8533:2011
Pol 03: Flood and surface water management 3. Surface water run-off Pre-requisite	0	0%	0	0%	Civil Engineer	Evidence 5 Professional specialist reports - Surface water calculations completed by a suitably qualified specialist
					Civil Engineer	Evidence 5 Design drawings - Full drainage drawings
Pol 03: Flood and surface water management 3. Surface water run-off Rate	1	0.67%	1	0.67%	Civil Engineer	Evidence 6, 7 and 9 Professional specialist reports - Surface water calculations completed by a suitably qualified specialist both existing and proposed
					Civil Engineer	Evidence 6, 7 and 9 Design drawings - Full drainage drawings

					Client	Evidence 8 Professional specialist reports - Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS.
Pol 03: Flood and surface water management 3. Surface water run-off Volume	1	0.67%	1	0.67%	Civil Engineer	Evidence 10 Professional specialist reports - Site specific Flood Risk Assessment completed by Suitably Qualified Consultant
					Civil Engineer	Evidence 12 Professional specialist reports - SUDS report and recommendations
					Civil Engineer	Evidence 10, 11, 14 and 16 Design drawings - Full drainage drawings showing system failure, flood flow routes, potential flood ponding levels and ground floor levels
					Civil Engineer	Evidence 11, 14 and 16 Professional specialist reports - Surface water calculations completed by a suitably qualified specialist both existing and proposed and any limiting discharge. Surface water calculations should allow for climate change.
					Client	Evidence 15 Professional specialist reports - Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS.
Pol 03: Flood and surface water management 5. Minimising watercourse pollution	1	0.67%	0	0%		
Pol 04: Reduction of night time light pollution	1	0.67%	1	0.67%	ME Engineer	Evidence 1 Communication records - Confirmation in writing that the project has safely designed out the need for external lighting
					ME Engineer	Evidence 2 - 5

						Construction specification - External lighting specification and strategy
					ME Engineer	Evidence 2 - 5 Design drawings - External lighting drawings and lux maps
Pol 05: Reduction of noise pollution	1	0.67%	1	0.67%	Project Manager	Evidence 1 Communication records - Confirmation in writing that there is no noise sensitive areas within 800m of the site
					Architect	Evidence 1 Design drawings/Other third party information - OS or site maps showing the surrounding areas at least 800m radius AND/OR Google maps showing the same
					Acoustic Engineer	Evidence 2 and 4 Professionals specialist reports - Noise Impact Assessment completed by a suitably qualified acoustician in line with BS4142:2014
					Acoustic Engineer	Evidence 3 Communication records - Confirmation in writing of the acousticians professional status and qualification in line with the BREEAM definition 'Suitably Qualified Acoustician'
					ME Engineer	Evidence 5 Construction specification - Specification of acoustic attenuation measures
Pollution Totals	12	8.00%	11	7.33%		

Innovation: 1 Credit = 1%	Available		Targeted		Responsibility	Evidence
	Credits	Percent	Credits	Percent	Role	
Inn 01: Innovation	10	10%	0	0%		
Man 03: Responsible construction practices						
1. Responsible construction management	1	1%	0	0%		
Hea 01: Visual comfort						
1. Daylighting	1	1%	0	0%		
Hea 01: Visual comfort	1	1%	0	0%		

2. Internal and external lighting						
Hea 02: Indoor air quality	1	1%	0	0%		
Hea 06: Security	1	1%	0	0%		
Ene 01: Reduction of energy use and carbon emissions 1. Energy performance	3	3%	0	0%		
Ene 01: Reduction of energy use and carbon emissions 2. Prediction of operational energy consumption Post-occupancy stage	2	2%	0	0%		
Wat 01: Water consumption	1	1%	0	0%		
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) 1. Core building services options appraisal during Concept Design	1	1%	0	0%		
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) 2. LCA and LCC alignment	1	1%	0	0%		
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) 3. Third party verification	1	1%	0	0%		
Mat 03: Responsible sourcing of construction products	1	1%	0	0%		
Wst 01: Construction waste management 1. Construction resource efficiency	1	1%	0	0%		
Wst 02: Use of recycled and sustainably sourced aggregates	1	1%	0	0%		
Wst 05: Adaptation to climate change	1	1%	0	0%		
LE 02: Ecological risks and opportunities	1	1%	0	0%		
LE 04: Ecological change and enhancement	1	1%	0	0%		
Innovation Totals (Up to a maximum of 10 credits)	10	10.00%	0	0.00%		
Overall Totals	138	110.00%	92	68.42%		