BREEAM PRE-ASSESSMENT TRACKER FOR PLANNING version 2

Jamestown Road

BREEAM UK NC 2018v6 Multi Residential 20/01/2025

REGAL

SUMMARY OF RESULTS





LE 03 - Minimising impact on existing site ecology

BREEAM PRE-ASSESSMENT TRACKER FOR PLANNING Jamestown Road

BREEAM UK NC 2018 v6 Multi Residential 20/01/2025

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	BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLI	TARGETEL	POTENTIA	NOT FEASIB	RESPONSIBL
MANA	GEMENT						
	Prior to completion of the Concept Design, the project delivery stakeholders meet to identify and define Roles,						
REQ 2	responsibilities and Contributions for each key phase of project delivery. Consider all the items required by BREEAM (provided upon request) when defining roles, responsibilities and contributions for each key phase of the project.		1	1			Project Team
REQ 3	Demonstrate how the Initial Project Brief, the Project Execution Plan, the Communication Strategy and the Concept Design have been influenced.						
STAKEF	HOLDER CONSULTATION (INTERESTED PARTIES)						
REQ 4	Prior to completion of RIBA Stage 2, the design team consult with all interested parties on matters that cover the minimum consultation content .						
REQ 5	Demonstrate how consultation has influenced the Initial Project Brief and Concept Design.		1	1			Project Team
REQ 6	Provide consultation feedback to all parties by RIBA Stage 4.						
BREEAN	M AP (CONCEPT DESIGN)						
REQ 8	Strategic performance targets are formally agreed early in the design process.						
REQ 9	At Concept Design Stage (RIBA Stage 2), involve a BREEAM AP in the project at an appropriate time and level to work with the project team, including the client, to maximise BREEAM performance, monitor progress, identify risks and opportunities, provide support to the project team and monitor and coordinate the generation of appropriate evidence by the project team.		1	1			Regal (LC)
BREEAN	M AP (DEVELOPED DESIGN)						
REQ 10	Achieve REQ 8 and 9. At Developed Design Stage (RIBA Stage 3-4), involve a BREEAM AP in the project at an appropriate time and level to work with the project team, including the client, to maximise BREEAM performance, monitor progress, identify risks and opportunities, provide support to the project team and monitor and coordinate the generation of appropriate evidence by the project team.		1	1			Regal (LC)
elemei	NTAL LCC						
REQ 1	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: 2008.						
REQ 2	The elemental LCC plan: a. Includes future replacement costs over a period of analysis as required by the client or a 60 yr default period. b Includes service life, maintenance and operation cost estimates.		2	2			To be appoint
REQ 3	The design teams provides appropriate examples that demonstrate how the LCC has influence building and systems design and specification to minimise life cycle costs and maximise critical value.						
	A competent person develops a component level LCC options appraisal by the end OF RIBA Stage 4 in line with PD 156865:						
REQ 4	2008 which includes (where present): Envelope, Services, Finishes and External spaces		1	1			To be appoint
REQ 5	and specification to minimise life cycle costs and maximise critical value.						
	Report the capital cost for the building in pounds per square metre of gross internal floor area (£k/ m²) as part of the						
REQ 6	submission to BRE.		1	1			Regal
PRE-RE	QUISITE: SITE TIMBER						
REQ 1	timber		Y	Y			Regal Construc
	DNMENTAL MANAGEMENT All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate						
REQ 3	an EMS covering their main operations.		1	1			Regal Construc
REQ 4	All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention in accordance with PPG6.						
REQ 5	VI AP (SITE) PRE-REQUISITE: The client and the contractor formally agree performance targets.						
DEO 6	Involve a BREEAM AP to support the project (in line with the established in Man 01 credit) throughout the Construction,		1	1			Regal Construc
NL3F UI	TWO CREDITS:						
REQ 7	Refer to Table 4.1 in the BREEAM guidance (provided on request). Achieve all items required for one credit plus six additional items in Table 4.1.	Excellent: One Credit					
REQ 8	Compliance can be demonstrated by achieving a CCS score of 39 with at least 13 in each section, and demonstrating item g. Ensure clear and safe access in and around the buildings at the point of handover.	Outstanding:	2	2			Regal Construc
REQ 9	ALTERNATIVELY, FOR ONE CREDIT ONLY: Achieve the items required for one credit in Man 03 Table 4.1 (provided on request).	Two Cledits					
EXEMP	LARY LEVEL: RESPONSIBLE CONSTRUCTION MANAGEMENT						
	ONE EXEMPLARY LEVEL CREDIT: Achieve all items included in Man 03 Table 4.1.						
	This can be demonstrated through a CCS score of 39 with at least 13 in each section, plus compliance with the following						
REQ 23	Table 4.1 items: g. Ensure clear and safe access in and around the buildings at the point of handover. p. The fleet operators, undertakes driver training and awareness to promote safety within the development footprint and off		1		1		Regal Construc
	site. q. The fleet operators, captures and investigates any road accidents, incidents and near misses and reports them back to the principal contractor. The principal contractor analyses these items.						

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	BREEAM REQUIREMENTS	MANDATORY STANDARDS			TARGET	POTENT	NOT FEAS	RESI	PONSIBLE
PRE-RE	QUISITE: MONITORING CONSTRUCTION SITE IMPACTS								
REQ 10	Assign responsibility to an individual for monitoring, recording and reporting energy use, water consumption and transportation data (where measured) resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme.			,	Y			Regal	Constructio
10NIT REO 11	ORING CONSTRUCTION SITE IMPACTS: UTILITIES As for REQ 10 for energy consumption monitoring.								
REQ 12	Set targets for the site energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation.								
REQ 13	Report the total carbon dioxide emissions (total kgCO ₂ /project value) from the construction process via BREEAM Projects								
REQ 15	(for the purposes of potential future BREEAM performance benchmarking). As for REQ 10 for water consumption monitoring.				1			Regal	Constructic
REQ 16	Set targets for the potable water consumption (m ³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation.								
REQ 17	Monitor and record data for the potable water consumption described in REQ 16.								
REQ 18	Use the collated data to report the total net water consumption (m ³), i.e. consumption minus any recycled water use from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).								
/ONIT(REQ 19	ORING CONSTRUCTION SITE IMPACTS: TRANSPORT As for REQ 10 for transport monitoring.								
REQ 20	 Set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum this covers: Transportation of materials from the point of supply to the building site, including any transport, intermediate storage and point of supply. This includes materials used in major building elements, ground works and landscaping materials. Transportation of construction waste from the construction gate to waste disposal processing or recovery centre gate. This monitoring must cover the construction waste groups outlined in the project's resource management plan. 				1			Regal	Constructio
REQ 21	Monitor and record data for the transportation movements as described in REQ 20.								
REQ 22	Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions ($kgCO_2$ -eq), plus total distance travelled (km) via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).								
COMMI	ISSIONING - TESTING SCHEDULE AND RESPONSIBILITIES								
REQ 1	Prepare a schedule of commissioning and testing which identifies 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.								
REQ 2	The schedule identifies the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with: Current Building Regulations, BSRIA, CIBSE and other appropriate standards. NOTE: process or manufacture-related equipment is excluded unless they form an integral part of the building HVAC services, such as some heat recovery systems.								
REQ 3	Where a building management system (BMS) is specified: a. Carry out commissioning of air and water systems when all control devices are installed, wired and functional b. Include physical measurements of room temperatures, off-coil temperatures and other key parameters, as appropriate, in commissioning results c. The BMS or controls installation should be running in auto with satisfactory internal conditions prior to handover d. All BMS schematics and graphics (if BMS is present) are fully installed and functional to user interface prior to handover e. Fully train the occupier or facilities team in the operation of the system.				1			Regal	Constructic
REQ 4	Appoint an appropriate project team member to monitor and programme pre-commissioning, commissioning and testing. Where necessary include re-commissioning activities on behalf of the client.								
REQ 5	The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and the main programme of works. Allow the required time to complete all commissioning and testing activities prior to handover.								
COMMI REQ 6	ISSIONING - DESIGN AND PREPARATION								
REQ 7	During the design stage, the client or the principal contractor appoints an appropriate project team member, provided they are not involved in the general installation works for the building services systems, with responsibility for: a Undertaking design reviews and giving advice 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 or post-handover stages. For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager.				1			Regal	Constructic
ESTIN	G AND INSPECTING BUILDING FABRIC								
REQ 8	Achieve REQ 1 to 5.								
REQ 9	Complete post-construction testing and inspection to quality-assure the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths (this is through airtightness testing and a thermographic survey). A suitably qualified professional undertakes the survey and testing in accordance with the appropriate standard.				1			Regal	Constructio
REQ 10	Rectify any defects identified prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building or element as defined at the design stage.								
IANDC	DVER								
REQ 11	Prior to handover, develop two building user guides for the following users: - A non-technical user guide for distribution to the building occupiers. - A technical user guide for the premises facilities managers. A draft copy is developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users.				1			Regal	Constructio
	Prepare two training schedules timed appropriately around handover and proposed occupation plans for the following users:								
keQ 12	A non-technical training schedule for the building occupiers.A technical training schedule for the premises facilities managers.								

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAL	NOT FEASIBL	RESPONSIBLE
	MANAC	GEMENT						
	PROJE(CT DELIVERY PLANNING						
	REQ 1	Provide aftercare support to the building occupiers as follows: a. A meeting between the aftercare support team or individual, and the building occupier or management team (prior to initial occupation, or as soon as possible thereafter) to: - Introduce the aftercare support available, including the content of the building user guide (where it exists) and training schedule. - Present key information on the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible. b. On-site facilities management training including: - a walkabout of the building AND - introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. c. Weekly attendance on-site, to support building users and management for the first month of occupation. d. A helpline, nominated individual or other appropriate system to support building users and management for the first year of occupation.		1	1			Regal/ Regal Construction
	REQ 2	Establish operational infrastructure and resources to coordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is substantially occupied. This facilitates analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and user behaviours accordingly.						
	COMM	ISSIONING - IMPLEMENTATION						
MAN 05 AFTERCARE	REQ 3	The specialist commissioning manager will complete the following commissioning activities over a minimum 12-month period, once the building becomes substantially occupied: i. Identify changes made by the owner or operator that might have caused impaired or improved performance. ii. Test all building services under full load conditions (winter and summer) and part load conditions (spring and autumn). iii. Where applicable, carry out testing during periods of extreme (high or low) occupancy. iv. Interview building occupants (where they are affected by the complex services) to identify problems or concerns regarding the effectiveness of the systems. v. Produce monthly reports comparing sub-metered energy performance to the predicted one (see Ene 01 Reduction of energy use and carbon emissions on page 121). vi. Identify inefficiencies and areas in need of improvement. vii. Re-commission systems (following any work needed to serve revised loads), and incorporate any revisions in operating procedures into the operations and maintenance (O&M) manuals. NOTE: Other requirements apply for simple buildings.		1	1			Regal Construction
	POST-C	DCCUPANCY EVALUATION						
	REQ 4	The client or building occupier commits to carry out a POE exercise one year after the building is substantially occupied. This gains comprehensive in-use performance feedback and identifies gaps between design intent and in-use performance. The aim is to highlight any improvements or interventions that need to be made and to inform operational processes.						
	REQ 5	An independent party carries out the POE covering: a. A review of the design intent and construction process (review of design, procurement, construction and handover processes). b. Feedback from a wide range of building users including facilities management on the design and environmental conditions of the building covering: i. Internal environmental conditions (light, noise, temperature, air quality) ii. Control, operation and maintenance iii. Facilities and amenities iv. Access and layout v. Energy and water consumption vi. Other relevant issues, where appropriate		1			1	
	REQ 6	The independent party provides a report with lessons learned to the client and building occupiers.						
	REQ 7	The client or building occupier commits funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE as described in REQ 5. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance.						
		SECTION SUB-TOTAL		21	20	0	1	
HEALTH AND W		OL OF GLARE FROM SUNLIGHT						
	REQ 1	1						
	REQ 2	A glare control strategy designs out potential glare in all relevant building areas where risk has been identified. This should be achieved through building form and layout or building design measures.		1			1	
	REQ 3	 The glare control strategy does not increase energy consumption used for lighting. This is achieved by: Maximising daylight levels in all weather, cloudy or sunny AND Ensuring the use or location of shading does not conflict with the operation of lighting control systems. 						

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	BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAL	NOT FEASIBL	RESPONSIBLE
MANA	GEMENT						
PROJE	CT DELIVERY PLANNING						
VIEW C	DUT						
REQ 5	95% of the floor area in 95% of spaces for each relevant building area is within 8m of an external wall. The external wall has a window or permanent opening that provides an adequate view out.						
REQ 6	The window or opening must be \geq 20% of the surrounding wall area. Where the room depth is greater than 8m, compliance is only possible where the percentage of window or opening is the same as, or greater than, the values in Table 1.0 of BS 8206: part 2.						
REQ 7	In addition, the following building type criteria is met: - <u>Prison buildings</u> Cells: An adequate view out from a normal standing or sitting position. The distance between each window and nearest external solid object (i.e. buildings, screens, walls or fences) is ≥ 10m. Where existing features prevent compliance with this criteria in less than 20% of the cells within the building, the credit can still be awarded. Patlent-occupled spaces: Refer to the Healthcare requirements for these spaces. - <u>Multi-residential buildings</u> Self-contained flats (living rooms) & Sheltered housing (communal lounges, individual bedrooms and bedsits): All positions within relevant areas are to be within 5m of a wall which has a window or permanent opening providing an adequate view out. The window/opening must be ≥ 20% of the surrounding wall area. - <u>Healthcare buildings</u> with inpatient areas: Patlent occupled spaces: As REQ 6 and 7 for the relevant building areas PLUS the distance between the wall with the window/opening and nearest external solid object (e.g. buildings, screens, walls/fences) is ≥ 10m.		1		1		Morris & Co
REQ 7	Internal lighting in all relevant areas of the building is designed to provide illuminance (lux) levels and colouring rendering index in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard.						
REQ 8	For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7, sections 2.4, 2.13 to 2.15, 2.20, and 6.10 to 6.20. This gives recommendations highlighting: a Limits to the luminance of the luminaires to avoid screen reflections. (Manufacturers' data for the luminaires should be sought to confirm this.) b Any area where a surface is used to reflect light in to a space, such as uplighting, the recommendations refer to the luminance of the lit ceiling rather than the luminaire; a design team calculation is usually required to demonstrate this. c Recommendations for direct lighting, ceiling illuminance, and average wall illuminance.						
REQ 9	All external lighting located within the construction zone is specified in accordance with BS 5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places.						
REQ 10	Where no external light fittings are specified (either separate from or mounted on the external building façade or roof), the criteria relating to external lighting do not apply and the credit can be awarded on the basis of compliance all other criteria.						
REQ 11	Internal lighting is zoned to allow for occupant control. Zoning is in accordance with the criteria below for relevant areas present within the building: a. In office areas, zones of no more than four workplaces b. Workstations adjacent to windows or atria and other building areas separately zoned and controlled c. Seminar and lecture rooms: zoned for presentation and audience areas d. Library spaces: separate zoning of stacks, reading and counter areas e. Teaching space or demonstration area f. Whiteboard or display screen g. Auditoria: zoning of seating areas, circulation space and lectern area h. Dining, restaurant, café areas: separate zoning of servery and seating or dining areas i. Retail: separate zoning of display and counter areas j. Bar areas: separate zoning of bar and seating areas k. Wards/ bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of beds. I. Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff.		1	1			Wallace Whittle
REQ 12	Areas used for teaching, seminar or lecture purposes have lighting controls provided in accordance with CIBSE Lighting Guide 5.						
	In addition, the following building type criteria is met: - Education buildings Easily accessible manual lighting controls for teachers while teaching and on entering/ leaving the teaching space. - Prison buildings Cells: Lit to a maintained illuminance of 200 lux at table top level. In addition there must be the facility for the occupant of the cell to select a lower level of general lighting if required. Exercise yards: Lit to a maintained illuminance of at least 10 lux. However, if such spaces are, or will be, used as sports facilities they must be lit to a maintained illuminance of 100 lux.						

<u>Court buildings</u> REQ 14 Separate zoning is also provided for the following areas (as a minimum): Judge's or magistrate's bench, Dock, Jury area and Public seating area.

Lighting control of the zones in the above spaces, and the court as a whole, cater for the following settings: Full lighting (to allow cleaning etc.), Normal lighting (for court sessions), Dimmed (for the purpose of showing audio-visual evidence, but allowing enough light for note taking).

- Auditoria spaces

Lighting controls to be as follows (size and use dependent): Full normal lighting (to allow for entry, exit, cleaning etc.), Demonstration area lighting off and audience area lighting reduced to a low level (for the purpose of line slide projection, but allowing enough light for the audience to take notes), All lighting off (for the projection of tone slides, colour slides, and for the purposes of visual demonstrations or performances), Separate localised lectern lighting.



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	BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAL	NOT FEASIBI	RESPONSIBLE
MANA	GEMENT						
PROJE	CT DELIVERY PLANNING						
PRE-RE	QUISITE - INDOOR AIR QUALITY PLAN						
	A site-specific indoor air quality plan has been produced and implemented in accordance with the guidance in Guidance						
	Note GN06. The plan must be produced no later than the end of Concept Design and must consider the following:						
	a. Removal of contaminant sources						Air Quality
REQ 1	b. Where present, consideration is given to the air quality requirements of specialist areas such as laboratories		Y	Y			Specialist
	c. Procedures for pre-occupancy flush out and purge ventilation d. Third party testing and analysis						
	e. Maintaining good indoor air quality in-use.						
	T. Any relevant local authority plans of policies (e.g. Air Quality Management Aleas of Local Air Quality Action Plans).						
EMISSI	ONS FROM CONSTRUCTION PRODUCTS						
DEO 2	ONE CREDIT: Three out of the five product types meet the best practice emission limits, testing requirements and any additional equirements. Where wood based products are not one of three selected product types all wood based						
INEQ 5	products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum.			1	1		Morris & Co
			2	1	1		Regal Interiors
REQ 4	TWO CREDITS: All product types meet the best practice emission limits, testing and other additional requirements.						
POST-0	CONSTRUCTION INDOOR AIR QUALITY MEASUREMENT						
	The formaldebyde concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 100						
REQ 5	μg/ m³ averaged over 30 minutes (World Health Organization guidelines for indoor air quality: Selected pollutants, 2010.						
REQ 6	The formaldehyde sampling and analysis is performed in accordance with ISO 16000-2 and ISO 16000-3.						
REQ 7	The total volatile organic compound (TVOC) concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed $300 \text{ µg/m}^3 \text{ over 8 hours}$						
REQ 8	The TVOC sampling and analysis is performed in accordance with ISO 16000-5 and ISO 16000-6 or ISO 16017-1.		1	1			Regal Construction
REQ 9	Where levels are found to exceed these limits, the project team confirms the measures that have, or will be, undertaken in accordance with the IAQ plan, to reduce the TVOC and formaldehyde levels to within the above limits.						
REQ 10	The measured concentration levels of formaldehyde (μg/ m³) and TVOC (μg/ m³) are reported, via the BREEAM Scoring and Reporting Tool.						
THERM	AL MODELLING						
REQ 1	Thermal modelling has been carried out using software in accordance with CIBSE AM11 Building Energy and Performance Modelling.						
	The software used to carry out the simulation at the detailed design stage provides full dynamic thermal						
REQ 2	altarysis. For smaller and more basic building designs with less complex heating of cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSE AM11).						
	The modelling demonstrates that:						
	a. For air-conditioned buildings: Summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A, Table 1.5; or other appropriate industry standard.		1	1			Wallace Whittle
REQ 3	b. For naturally ventilated buildings: Winter operative temperature ranges in occupied spaces are in accordance with the						
	The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in						
	either of the following standards as appropriate; CIBSE TM52 or CIBSE TM59: Design methodology for the assessment of overheating risk in homes.						
REQ 4	For air-conditioned buildings, the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.						
DESIGN	I FOR FUTURE THERMAL COMFORT						
REQ 5	REQ 1 to 4 are achieved.						
REQ 6	The thermal modelling demonstrates that the relevant requirements set out in criterion 3 above are achieved for a projected climate change environment.						
RFO 7	Where criterion 6 above is not met, the project team demonstrates how the building has been adapted, or designed to be easily adapted in future using passive design solutions in order to subsequently meet the requirements under criterion 6		1			1	
	above.						
REQ 8	For air-conditioned buildings, the PMV and PPD indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.						
				1			

REQ 9	REQ 1 to 4 are achieved.			
REQ 10	The thermal modelling analysis (criterial on the previous page to 4 on the previous page) has informed the temperature control strategy for the building and its users.			
	The strategy for proposed heating or cooling systems demonstrates that it has addressed the following: a. Zones within the building, and how the building services could efficiently and appropriately heat or cool these areas. For example consider the different requirements for the central core of a building compared with the outerral perimeter adjacent to the windows.			
REQ 11	 b. The degree of occupant control required for these zones. This is based on discussions with the end user (or alternatively building type or use specific design guidance, case studies, feedback) and considers: User knowledge of building services Occupancy type, patterns and room functions (and therefore appropriate level of control required) How the user is likely to operate or interact with the systems, e.g. are they likely to open windows, access thermostatic radiator valves (TRV) on radiators, change air-conditioning settings etc. The user expectations (this may differ in the summer and winter) and degree of individual control (i.e. obtaining the balance between occupant preferences, for example some occupants like fresh air and others dislike draughts). 	1	1	Wallace Whittle
	c. How the proposed systems will interact with each other (where there is more than one system) and how this may affect the thermal comfort of the building occupants			
	d. The need or otherwise for an accessible building user actuated manual override for any automatic systems.			

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLI	TARGETED	POTENTIA	NOT FEASIB	RESPONSIBLE
	MANAC PROJEC	GEMENT CT DELIVERY PLANNING		ī.				
HEA 05 ACOUSTICS	REQ 1	The building meets the appropriate acoustic performance standards and testing requirements in line with the acoustic principles of: a. Sound insulation b. Indoor ambient noise level c. Room acoustics.		4	2		2	Acoustic Consultant
	SECURI							
Ł	REQ 1	A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent). The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development						
SECURI	REQ 2	The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA.		1			1	
HEA 06	REQ 3	The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SOSS						
	EXEMP	LARY LEVEL CREDIT - SECURITY OF SITE AND BUILDING						
	REQ 4	A compliant risk based security rating scheme has been used (i.e. SABRE). The performance against the scheme has been confirmed by independent assessment and verification.		1			1	
	REQ 1	Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to offsite cycle paths where applicable.						
CONMENTS	REQ 2	Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: a. The site entrance to the building entrance, b. Car parks (where present) to the building entrance c. The building to outdoor space d. Connecting to off-site paths where applicable.						Iceni
NVIF	REO 3	Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other		1	1			Morris & Co.
IY EI		footpaths.						
D HEALTH	REQ 4	Delivery areas are not accessed through general parking areas and do not cross or share the following: a. pedestrian and cyclist paths b. outside amenity areas accessible to building users and general public.						(lighting)
AN	KLQ J	There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area						
07 SAFE	REQ 6	and staff and visitor car parking. Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting.						
HEA	OUTSIC	DE SPACE						
	REQ 7	There is an outside space providing building users with an external amenity area.		1	1			Morris & Co.
		SECTION SUB-TOTAL		19	9	2	9	
NERGY								
SNOISSIM	REQ 1	Calculate an Energy Performance Ratio for New Construction (EPR _{NC}). Credits are awarded based on improvements of the actual building over the notional building's heating and cooling energy demand, primary energy consumption and CO_2 emissions.		9	6		3	Wallace Whittle
S E		TION OF OPERATIONAL ENERGY CONSUMPTION						
RBC	REO 2	Achieve criterion 2 in Ene 04 Low Carbon Design (Passive Design)						
) CA	REQ 3	Estimate the occupancy, energy use for unregulated energy loads and management practices.						
AND	REQ 4	Undertake detailed energy modelling to predict the building energy consumption.						
JSE	REQ 5	Undertake sensitivity analysis to determine the factors that can significantly impact building energy consumption.						
IERGY L	REQ 6	Based on the results of the sensitivity analysis, and in discussion with the project team, the client and the prospective occupier devise scenarios to explore how high impact factors might influence the building energy consumption.		4	4			Wallace Whittle
1 EN	REQ 7	Undertake scenario modelling and use these findings to inform improvements to design of the building and to operational, maintenance, and handover strategies						
VE O	REQ 8	Determine an energy target for the building based on the results of the scenario modelling.						
	REQ 9	At the post-construction stage, the scenario modelling should be repeated to reflect the post construction building specification and, if necessary, adjust the energy target.						
	SUB-ME	ETERING OF END USE CATEGORIES						
	REQ 1	Install energy metering systems so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories.						
ORING	REQ 2	Meter the energy consumption in buildings according to their total useful floor area: For buildings ≥1,000m ² : by end-use category with an appropriate energy monitoring and management system. For buildings <1,000m ² :		1	1			Wallace Whittle
LINOV		ii. separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system.						
RGY N	REQ 3	Building users can identify the energy consuming end uses, for example through labelling or data outputs.						

20/01/2025 NOT FEASIBLE TARGETED POTENTIAL AVAILABLE MANDATORY **BREEAM REQUIREMENTS** RESPONSIBLE STANDARDS MANAGEMENT PROJECT DELIVERY PLANNING SUB-METERING OF HIGH ENERGY LOAD AND TENANCY AREAS ENE 02 ENE Monitor a significant majority of the energy supply with an accessible energy monitoring and management system OR separate accessible energy sub-meters with pulsed or other open protocol communication outputs for future connection to REQ 4 an energy monitoring and management system for: i. tenanted areas OR; Wallace Whittle 1 ii. relevant function areas or departments in single occupancy buildings. Sub-meter per floor plate in large single occupancy or single-tenancy buildings with one homogeneous function (e.g. hotel REQ 5 bedrooms, offices) EXTERNAL LIGHTING EXTERNAL LIGHTING No external lighting (which includes lighting on the building, at entrances and signs) OR; REQ 1 ENE 03 External light fittings within the construction zone with: a. Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt 1 Wallace Whittle REQ 2 b. Automatic control to prevent operation during daylight hours c. Presence detection in areas of intermittent pedestrian traffic. PASSIVE DESIGN ANALYSIS Achieve the HEA 04 - THERMAL MODELLING credit to demonstrate that the building design delivers appropriate thermal REQ 1 comfort levels in occupied spaces. ENE 04 LOW CARBON DESIGN The project team analyses the proposed building design and development during Concept Design to identify opportunities REQ 2 for the implementation of passive design measures. Wallace Whittle 1 Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy REQ 3 consumption in line with the passive design analysis findings. REQ 4 Quantify the reduced total energy demand and carbon dioxide (CO₂) emissions resulting from the passive design measures LOW AND ZERO CARBON FEASIBILITY STUDY REQ 9 An energy specialist completes An LZC feasibility study by the end of Concept Design. Establish the most appropriate recognised local (on-site or near-site) LZC energy sources for the building or development, REQ 10 based on the feasibility study 1 Wallace Whittle Specify local LZC technologies for the building or development in line with the feasibility study recommendations. REQ 11 REQ 12 Quantify the reduced regulated carbon dioxide (CO₂) emissions resulting from the feasibility study. ENERGY CONSUMPTION 06 ENERGY EFFICIENT TRANSPORTATION SYSTEMS For specified lifts, escalators or moving walks (transportation types): a. Analyse the transportation demand and usage patterns for the building to determine the optimum number and size of lifts, escalators or moving walks b. Calculate the energy consumption in accordance with BS EN ISO 25745 Part 2 or Part 3 for one of the following: REQ 1 1 Wallace Whittle VT i. At least two types of system for each transportation type required OR II. An arrangement of systems, for example for lift systems, hydraulic, traction, machine room-less lift (MRL) OR iii A system strategy that is 'fit for purpose' c. Consider the use of regenerative drives, subject to REQ 4. d. Specify the transportation system with the lowest energy consumption. PRE-REQUISITE - ENERGY EFFICIENT FEATURES ΥY REQ 2 Achieve REQ 1. ENERGY EFFICIENT FEATURES - LIFTS Specify the following three energy efficient features for each lift: a. A standby condition for off-peak periods b. The lift car lighting and display lighting provides an average luminous efficacy across all fittings in the car of > 70 REQ 3 luminaire lumens per circuit Watt c. Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive 1 Wallace Whittle VT motor ENE Specify regenerative drives where their use produces an energy saving greater than the additional standby energy used to REQ 4 support the drives. ENERGY EFFICIENT EQUIPMENT **08 ENERGY EFFICIENT** Identify the building's unregulated energy consuming loads. Estimate their contribution to the total annual unregulated energy consumption of the building, assuming a typical or standard specification. This includes, but not limited to: swimming Wallace Whittle REQ 1 EQUIPMENT pools, commercial laundry facilities, data centres, IT-intensive operating areas, domestic scale appliances, healthcare, (energy kitchen and catering facilities. calculations) Identify the systems or processes that use a significant proportion of the total annual unregulated energy consumption of 2 2 REQ 2 Regal and Design the building. Team (selections to ensure meaningful ENE REQ 3 Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building. reduction met)

		SECTION SUB TOTAL		23	17	0	6		
FRANSPORT									
	TRANS	PORT ASSESSMENT AND TRAVEL PLAN							
TRAVE	REQ 1	During the feasibility and design stages, develop a travel plan based on a site-specific travel assessment or statement.							
PORT ASSESSMENT AND PLAN	REQ 2	The site-specific travel assessment or statement covers as a minimum: a. Existing travel patterns and opinions of existing building or site users towards cycling and walking, identifying constraints and opportunities, if relevant. b. Travel patterns and transport impact of future building users. c. Current local environment for walkers and cyclists. d. Reporting of the number and type of existing accessible amenities, within 500m of the site. e. Disabled access (accounting for varying levels of disability and visual impairment). f. Calculation of the existing public transport Accessibility Index (AI). g. Current facilities for cyclists.		2	2			lceni Regal	
RANSI	REQ 3	The travel plan includes proposals to increase or improve sustainable modes of transport and movement of people and goods during the building's operation and use.							
01 1	REQ 4	If the occupier is known, involve them in the development of the travel plan.							

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	BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIA	NOT FEASIB	RESPONSIBLE
	MANAGEMENT						
	PROJECT DELIVERY PLANNING						
TRA	REQ 5 Demonstrate that the travel plan will be implemented post construction and be supported by the building's management operation.	in					

MANAGEI PROJECT TRANSPO REQ 1 Ac REQ 2 Ide REQ 3 Aw im	MENT DELIVERY PLANNING DRT OPTIONS IMPLEMENTATION chieve the TRA 01 - TRAVEL PLAN credit.					
PROJECT TRANSPO REQ 1 Ac REQ 2 Ide REQ 3 Aw im	DELIVERY PLANNING DRT OPTIONS IMPLEMENTATION chieve the TRA 01 - TRAVEL PLAN credit.					
REQ 1 Ac REQ 2 Ide REQ 3 Aw Im Im	ORT OPTIONS IMPLEMENTATION chieve the TRA 01 - TRAVEL PLAN credit.					
REQ 2 Ide REQ 3 Aw im	chieve the TRA UI - TRAVEL PLAN credit.					
REQ 3 Aw	lentify the sustainable transport measures					
1 T	ward credits according to the Accessible Index (AI) of the project, and the total number of points achieved for the options nplemented, see Table 7.3 below	10	6	1	3	
OPT 1 ≥ 8	The existing AI calculated in Tra 01 achieves the following: 4 for prison or MOD sites, rural location sensitive buildings, and other building group 3 8 for all other building types	Y	Y			
OPT 2 2. I col a r	Demonstrate an increase over the existing Accessibility Index through: Negotiation with local bus, train or tram orpanies to increase the frequency of the local service provision for the development; or provision of a diverted bus route, new or enhanced bus stop, or other similar solutions; or a dedicated service, such as a bus route or service.	Y				
OPT 3 inf	Provide a public transport information system in a publicly accessible area, to allow building users access to up-to-date formation on the available public transport and transport infrastructure. This may include signposting to public transport, ycling, walking infrastructure or local amenities.	Y		Y		
OPT 4 de	Provide electric recharging stations of a minimum of 7kW for at least 10% of the total car parking capacity for the evelopment.	Y		Y		Iceni
OPT 5 tot	Set up a car sharing group or facility to facilitate and encourage building users to car share. Raise awareness of the naring scheme with marketing and communication materials. Provide priority spaces for car sharers for at least 5% of the otal car parking capacity for the development. Locate priority parking spaces nearest the development entrance used by ne sharing scheme participants.	Y				Morris & C Wallace Wt
6. I ne OPT 6 to de rou	During preparation of the brief, the design team consults with the local authority (LA) on the state of the local cycling etwork and public accessible pedestrian routes, to focus on whichever the LA deems most relevant to the project, and how o improve it. Agree and implement one proposition chosen with the local authority. The proposition supported by the evelopment is additional to existing local plans and has a significant impact on the local cycling network or on pedestrian putes open to the public.	Y				
OPT 7	Install compliant cycle storage spaces to meet the minimum levels set out in BREEAM Table 7.5.	Y	Y			
OPT 8 8. I	Provide at least two compliant cyclists' facilities for the building users: howers / Changing facilities / Lockers / Drying spaces.	Y	Y			
OPT 9 9. /	At least three existing accessible amenities are present, see BREEAM Table 7.6, where relevant for a Building Group.	Y	Y			
OPT 10 pro	D. Ensure a minimum of one new accessible amenity, in accordance with Table 7.6, for the relevant Building Group, is rovided; or Ensure more than one new accessible amenity, in accordance with Table 7.6 for the relevant Building Group, is rovided.	Y			Y	
OPT 11 11.	. Implement one site-specific improvement measure, not covered by the options already listed in this issue, in line with the ecommendations of the travel plan. Submit this for review by BRE.	Y			Y	
SE	ECTION SUB-TOTAL	12	8	1	3	
1/1 TED 0						
REQ 1 - 7 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	se the BREEAM Wat 01 calculator to assess the efficiency of the domestic water-consuming components. The following omponents are assessed: WCs Urinals Taps (wash-hand basins and, where specified, kitchen taps and waste disposal unit) Showers Baths Dishwashers (domestic and commercial sized) Washing machines (domestic and commercial or industrial sized).					
REQ 2 Co	ompare the water consumption (litres/person/day) for the assessed building against a baseline performance and credits re awarded based on improvements over the baseline.	5	3		2	Morris & (
REQ 3 If a	a greywater or rainwater system is specified, use its yield in L/person/day to offset potable water demand from omponents.					
REQ 4 lf a b. of	a greywater or rainwater system is specified and installed: . Greywater systems in compliance with BS 8525-1:2010 Greywater systems - Part 1 Code of Practice . Rainwater systems in compliance with BS 8515:2009+A1:2013 Rainwater harvesting systems - Code f practice.					
REQ 5 Fo	or Healthcare buildings: The flushing control for each WC or urinal must be suitable for operation by patients with frail or firm hands or activated by electronic sensors.					
REQ 6	or ensorr buildings: sanitary components specified within a prison cell have a volume controller specified on the individual ttings or water supply to each cell.					

WAT 01 WATER CONSUMPTION

WAT 02 WATER MONITORING

WATER

REQ 7	Achieve REQ 1-6.	1		V	\A/allaga \A/bittla
REQ 8	The assessed building's water consumption achieves a 65% improvement over the baseline building.			T	vvaliace vvnittie
WATER	MONITORING				
REQ 1	Specify a water meter on the mains water supply to each building.				
	For water-consuming plant/ building areas consuming 10% or more of the total water demand, fit easily accessible sub-				
RLQ Z	meters OR install water monitoring equipment integral to the plant or area.				
	For each meter (main and sub):				
REQ 3	a. Install a pulsed or other open protocol communication output AND				
	b. Connect it to an appropriate utility monitoring and management system e.g. a BMS.	1	1		Wallace Whittle
	In buildings with swimming pools, or large water tanks and aquariums, fit separate sub-meters on the water supply and any				Wandee Winttle
NLQ 4	associated changing facilities (toilets, showers etc.).				
DEO 5	For buildings containing laboratories: fit a separate meter on the water supply to any process or cooling loop for 'plumbed-				
ILC2 J	in' laboratory process equipment.				
DEO 6	For Post Occupancy Certification: The water monitoring strategy used enables the identification of all water consumption				
NLQ 0	for sanitary uses as assessed under Wat 01 (litres/person/day).				

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS		AVAILABL	TARGETEL	POTENTIA	NOT FEASIB	RESPONSIBLE
	MANAG	GEMENT							
	PROJE	CT DELIVERY PLANNING							
Z	REQ 1	Install a leak detection system capable of detecting a major water leak: a. On the utilities water supply within the buildings, to detect any major leaks within the buildings AND b. Between the buildings and the utilities water supply, to detect any major leaks between the utilities supply and the buildings under assessment.							
WAT 03 WATER LEAK DETECTIC	REQ 2	The leak detection system is: a. A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks b. Activated when the flow of water passing through the water meter or data logger is at a flow rate above a pre-set maximum for a pre-set period of time. This usually involves installing a system which detects higher than normal flow rates at meters or sub-meters. It does not necessarily require a system that directly detects water leakage along part or the whole length of the water supply system c. Able to identify different flow and therefore leakage rates, e.g. continuous, high or low level, over set time periods. Although high and low level leakage rates are not specified, the leak detection equipment installed must have the flexibility to distinguish between different flow rates to enable it to be programmed to suit the building type and owner's or occupier's usage patterns. d. Programmable to suit the owner's or occupier's water consumption criteria. e. Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers.			1	1			Wallace Whittle
	FLOW	CONTROL DEVICES							
	REQ 3	Install flow control devices that regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework.			1	1			Wallace Whittle
T TER	WATER	EFFICIENT EQUIPMENT							
04 WAT FICIENT JIPMEN	REQ 1	Identify all water demands from uses other than those listed under WAT 01 - WATER CONSUMPTION that could be realistically mitigated or reduced.			1	1			Landscape
WAT (EFF EQL	REQ 2	Identify systems or processes to reduce the relevant water demand, and establish a demonstrable reduction in the total water demand of the building.			1				Architect
		SECTION SUB-TOTAL		-	9	7	0	2	
MATERIALS	SUPERS	STRUCTURE - OPTION APPRAISAL (CONCEPT & TECHNICAL DESIGN)							
		SUPERSTRUCTURE - COMPARISON WITH BREEAM BENCHMARK (CONCEPT DESIGN)							
	REQ 1	For Office, Industrial and Retail buildings only: a. During Concept Design, carry out a building LCA on of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool. b. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is applied for (that includes external material or product specifications)							
	REQ 2	SUPERSTRUCTURE - COMPARISON WITH BREEAM BENCHMARK (TECHNICAL DESIGN) For Office, Industrial and Retail buildings only: a. During Technical Design, carry out a building LCA on of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool		-					
		b. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design.	gn.						
	REQ 1	COMPARISON WITH THE BREEAM LCA BENCHMARK (CONCEPT DESIGN)							
S - LCA		 1.a Carry out a building LCA on of the superstructure design using either the BREEAMSimplified Building LCA tool or an IMPACT Compliant LCA tool according to the methodology (see Methodology on page 226). 1.b Submit the Mat 01/02 Results Submission Tool to BREat the end of Concept Design, and before planning permission is applied for (that includes external material or product specifications). 							
JCT	REQ 2	COMPARISON WITH THE BREEAM LCA BENCHMARK (TECHNICAL DESIGN)							
PRODL		During Technical Design, demonstrate the environmental performance of the building as follows: 2.a As criterion 1.a							
NOI		2.0 Submit the Mat 01/02 Results Submission Tool to BREat the end of Technical Design. SUPERSTRUCTURE - OPTION APPRAISAL (CONCEPT DESIGN)			6	6			Wallace Whittle
JCT	REQ 3	For Office, Industrial and Retail buildings, achieve REQ 1.							
STRU		During Concept Design, identify opportunities for reducing environmental impacts as follows:							
NO		b. Use a building LCA tool that is recognised by BREEAM.							
Ŏ		c. For each design option, fulfil the same functional requirements specified by the client and all statutory requirements (to							
RON		d. Integrate the LCA options appraisal activity within the wider design decision-making process. Record this in an options							
TS F	REQ 4	appraisal summary document. e. Record the following in the Mat 01/02 Results Submission Tool:							
AC		- The differences between the design options							
IM		 The design option selected by the client to be progressed beyond Concept Design The reasons for selecting it and the reasons for not selecting the other design options. 							
TAL		f. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is							
AEN	<u> </u>	SUPERSTRUCTURE - OPTION APPRAISAL (TECHNICAL DESIGN)							
NNC		During Technical Design identify opportunities for reducing environmental impacts as follows:							
VIR(a. Can your building LCA options appraisal of 2 to 3 significantly different superstructure design options (based on the selected Concept Design option and as applicable to the Technical Design).							
Z	KLQ 5	b. Use a building LCA tool that is recognised by BREEAM.							
T 01		C. AS REQ 4.C to 4.e. vvnere an options appraisal summary document was produced during Concept Design, update it to include the Technical Design options.							
MA		d. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design.							

	applied for.					
	SUPERSTRUCTURE - OPTION APPRAISAL (TECHNICAL DESIGN)					
	During Technical Design identify opportunities for reducing environmental impacts as follows:					
	a. Carry out building LCA options appraisal of 2 to 3 significantly different superstructure design options (based on the					
REO 5	selected Concept Design option and as applicable to the Technical Design).					
	b. Use a building LCA tool that is recognised by BREEAM.					
	c. As REQ 4.c to 4.e. Where an options appraisal summary document was produced during Concept Design, update it to					
	include the Technical Design options.					
	d. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design.	1.1				
SUBSTR	RUCTURE AND HARD LANDSCAPING - OPTION APPRAISAL (CONCEPT DESIGN)					
REQ 6	Achieve REQ 3 and 4.					
	During Concept Design identify opportunities for reducing environmental impacts as follows:					
	a. Carry out building LCA options appraisal of a combined total of at least six significantly different substructure or hard		1	1		
REQ 7	landscaping design options (at least two shall be substructure and at least two shall be hard landscaping).		1	1		vvaliace vvnittle
	b. Using a building LCA tool that is recognised by BREEAM.					
	c. As REQ 4.c to 4.f above.					
EXEMP	ARY LEVEL CREDIT - CORE BUILDING SERVICES - OPTION APPRAISAL (CONCEPT DESIGN)	11				
REQ 8	Achieve REQ 3 and 4.					

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	BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAI	NOT FEASIBI	RESPONSIBLE
MANA	GEMENT						
PROJE	CT DELIVERY PLANNING						
REQ 9	During Concept Design identify opportunities for reducing environmental impacts as follows: a. Carry out building LCA options appraisal of at least 3 significantly different core building services design options. b. Use a building LCA tool that is recognised by BREEAM. c. As REQ 4.c to 4.f above.		1	Y			Wallace Whittle

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAL	NOT FEASIBL	RESPONSIBLE
	MANAG	GEMENT						
Ļ	SPECIFI	CT DELIVERY PLANNING CATION OF PRODUCTS WITH RECOGNISED ENVIRONMENTAL PRODUCT DECLARATIONS						
N T A	REQ 1	Specify construction products with EPDs that achieve a total EPD points score of at least 20.						
NIME RON TIO - EP								
MAT 02 ENVIRO IMPACTS F CONSTRUC PRODUCTS	REQ 2	Enter the details of each EPD into the Mat 01/02 Results Submission Tool, including the material category classification.		1			1	Morris & Co Regal Interiors
L	PRE-RE	QUISITE						
DUC	REQ 1	All timber and timber-based products used on the project are legally harvested and traded timber as per the UK Government's Timber Procurement Policy (TPP).		Y	Y			All
PRO		MANDATORY FOR ALL RATINGS.						
URCING OF CONSTRUCTION	REQ 2	A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must: 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. 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. e. If the plan is applied to several sites, or adopted at an organisational level, it must identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO 20400:2017.		1	1			Regal
SO	MEASU	RING RESPONSIBLE SOURCING						
MAT 03 RESPONSIBLE	REQ 3	Use the Mat 03 calculator tool to determine the number of credits achieved for the construction products specified or procured. ONE CREDIT: Where 10% of the available points are achieved when assessing the superstructure. TWO CREDITS: Where 20% of the available points are achieved when assessing the superstructure, internal finishes, substructure and hard landscaping. THREE CREDITS: Where 30% of the available points are achieved when assessing the superstructure, internal finishes, substructure and hard landscaping. ONE EXEMPLARY LEVEL CREDIT: Where 50% of the available points are achieved when assessing the superstructure, internal finishes, internal finishes, substructure, and hard landscaping.		3	2		1	Morris & Co, Wallace Whittle, Regal Interiors.
	DESIGN	IING FOR DURABILITY AND RESILIENCE						
R DURABILITY AND	REQ 1	Protection measures are incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring. These measures must provide protection against: a. Negative impacts of high user numbers in relevant areas of the building. b. Damage from any vehicle or trolley movements in storage, delivery, corridor and kitchen areas. c. External building fabric damage by a vehicle. d. Potential malicious damage to building materials and finishes, in public and common areas.						Morris & Co to
ILIEN		PROTECTING EXPOSED PARTS OF THE BUILDING FROM MATERIAL DEGRADATION		1	1			collate.
15 DESIGNING RESI	REQ 2	Key exposed building elements have been designed and specified to limit long and short term degradation due to environmental factors, through EITHER: a. The element or product achieving an appropriate quality or durability standard or design guide. If none are available, use BS 7543: 2015 as the default appropriate standard OR; b. A detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors.						Input from others where required.
IAT C	REQ 3	Include convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's						
2	REO 4	Design the roof and facade to prevent water damage, ingress and detrimental ponding.						
AL EFFICIENCY	REQ 1	At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials at each of the following stages: a. Preparation and Brief b. Concept Design c. Developed Design d. Technical Design e. Construction						Morris & Co to collate.
F 06 MATERI	REQ 2	Develop and record the implementation of material efficiency during: a. Developed Design b. Technical Design c. Construction						Input from others where required.
TAM	REQ 3	Report the targets and actual material efficiencies achieved.						
		SECTION SUB-TOTAL		14	12	0	2	
WASTE								
ANAGEMENT	REQ 1	Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of materials. The audit must: a. Be undertaken at Concept Design by a competent person prior to strip-out or demolition works. b. Guide the design, consider materials for reuse and set targets for waste management. c. Engage all contractors in the process of maximising high grade reuse and recycling opportunities. d. Compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets. Make reference to the audit in the resource management plan.		1	1			Regal Construction

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS			IAKGEIEU	POTENTIAI	NOT FEASIB	RESPONSIBLE
	MANAC	GEMENT							
\geq	PROJEC	CT DELIVERY PLANNING RUCTION RESOURCE EFFICIENCY							
TION WASTE	REQ 3	Prepare a compliant Resource Management Plan covering: a. Non-hazardous waste materials (from on-site construction and dedicated off-site manufacture or fabrication), including demolition and excavation waste b. Accurate data records on waste arisings and waste management routes.			,	1		2	Regal Construction
1 CONSTRUC	REQ 4	 Meet or improve upon the following benchmarks for generating non-hazardous construction waste (this excludes demolition and excavation waste): ONE CREDIT: ≤13.3m³ OR ≤11.1 tonnes of waste per 100m² of GIFA. TWO CREDITS: ≤7.5m³ OR ≤6.5 tonnes of waste per 100m² of GIFA. THREE CREDITS: ≤3.4m³ OR ≤3.2 tonnes of waste per 100m² of GIFA. 				I		2	Regai Construction
ST 0	DIVERS	ION OF RESOURCES FROM LANDFILL							
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	REQ 5	Achieve the following diversion of resources from landfill targets for non-hazardous construction waste and demolition waste generated: - NON-DEMOLITION WASTE: ≥70% by volume OR ≥80% by tonnage. - DEMOLITION WASTE: ≥80% by volume OR ≥90% by tonnage.				1			Regal Construction
	REQ 6	Sort waste materials into key waste groups, either on-site or via a licensed contractor for recovery.							
	OPERA	TIONAL WASTE							
	REQ 1	Provide a dedicated space for segregating and storing operational recyclable waste. The space is: a. Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams. b. Accessible to building users for depositing and to waste management contractors for collection. c. Of a capacity appropriate to the building type, size and predicted volumes of waste.							
L WASTE	REQ 2	For consistent and large amounts of operational waste generated, provide: a. Static waste compactors/ balers; situated in a service area/dedicated waste management space. b. Vessels for composting suitable organic waste OR adequate spaces for storing segregated food waste and compostable organic material for collection. c. A water outlet for hygiene purposes, where organic waste is stored or composted on site.							
OPERATIONA	REQ 4	Additionally for multi-residential buildings with self-contained dwellings or bedsits only: Provide three internal storage containers for each dwelling or bedsit with: a. A minimum total capacity of 30 litres b. No individual container smaller than 7 litres c. All containers in a dedicated non-obstructive position d. Storage containers for recycling in addition to non-recyclable waste storage.				1			Morris & Co and Iceni
T 03	REO 5	Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space							
MS		for each self-contained dwelling or bedsit.							
	REQ 6	Additionally for multi-residential buildings with individual bedrooms and communal facilities only:							
	REQ 7 REQ 8	Meet REQ 4.a and 4.b for every six bedrooms. Locate recyclable storage in a dedicated, unobstructed position in a communal space (e.g. kitchen). Provide home composting facilities and information leaflet in the kitchen area or communal space.							
	REQ 9	Provide a minimum of 10 litres of internal storage for compostable waste.							
NTE CHANGE	RESILIE REQ 1	NCE OF STRUCTURE, FABRIC, BUILDING SERVICES AND RENEWABLES INSTALLATION Conduct a systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes: i. Hazard identification ii. Hazard assessment iii. Risk estimation iv. Risk evaluation				1			Design Team, collated by Wallace
AMI		v. Risk management.							Whittle.
N TO CL	REQ 2	Concept Design, that aim to mitigate the identified impact During Technical Design demonstrate how the recommendations proposed at Concept Design have been implemented							
UTIO	REQ 3	where practical and cost effective.							
APT/	EXEMPL	LARY LEVEL CREDIT - RESPONDING TO CLIMATE CHANGE							
WST 05 AD/	REQ 4	Achieve REQ I to 3. Achieve the following credits: - HEA 04 - DESIGN FOR FUTURE THERMAL COMFORT. - ENE 01 - REDUCTION OF ENERGY USE AND CARBON EMISSIONS (≥ 6 credits). - ENE 04 - PASSIVE DESIGN ANALYSIS. - WAT 01 - WATER CONSUMPTION (≥ 3 credits). - MAT 05 - DESIGNING FOR DURABILITY AND RESILIENCE. - POL 03 - FLOOD RESILIENCE (≥ 1 credit) & SURFACE WATER RUN-OFF (2 credits).						1	
~	DESIGN	FOR DISASSEMBLY AND ADAPTABILITY - RECOMMENDATIONS							
SEMBL	REQ 1	Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design.				1			Design Team led by
ISAS LITY	REQ 2	Develop recommendations or solutions based on the study (REQ 1) during Concept Design, that aim to enable and facilitate disassembly and functional adaptation.							Morris&Co.
JR D TABI	DESIGN	FOR DISASSEMBLY AND ADAPTABILITY - IMPLEMENTATION							
U FC DAP	REQ 3	Achieve REQ 1 and 2.						_	
5 DESIGN AND AI	REQ 4	Provide an update, during Technical Design, on: a. How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective. b. Changes to the recommendations and solutions during the development of the Technical Design				1			Architect - Stage 4
0 T 0		Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability							
$\sim$	REQ 5	and disassembly to prospective tenants.							
				1	C	7	0	3	
LAND USE AND									
LE 01 SITE SELECTION	REQ 1	At least 75% of the proposed development's footprint is on an area of land which has previously been occupied.				1			Morris & Co

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	BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIA	NOT FEASIB	RESPONSIBL
MANA	GEMENT						
PROJE	CT DELIVERY PLANNING						
REQ 1	The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.		Y	Y			Greengage
SURVE'	Y AND EVALUATION						
REQ 2	ROUTE 1: Completion of the Ecological Risk Evaluation Checklist indicates that assessment ROUTE 1 can be used.						
REQ 3	ROUTE 2: A Suitably Qualified Ecologist carries out a survey and evaluation for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically Preparation and brief stage)						
REQ 4	The SQE's survey and evaluation determines the site's ecological baseline, 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 from the project. c. Capacity and feasibility for enhancement of the ecological value of the site and, where relevant, areas within the zone of influence.		1	1			Greengage
REQ 5	Recommendations and data collected from the survey and evaluation are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works, which can support ecological features.						
DETERI	MINING THE ECOLOGICAL OUTCOMES - ROUTE 1 AND 2						
REQ 6	Survey and evaluation criteria (REQ 2–5) relevant to the chosen route have been achieved.						
REQ 7	The project team liaise and collaborate with representative stakeholders (see Methodology) 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 (criterion 7.a), in line with the mitigation hierarchy of action, according to the route being used (see Definitions):		1	1			Greengage
PRE-RE	QUISITE - ECOLOGICAL RISKS AND OPPORTUNITIES						
REQ 1	LE 02's 'Survey and evaluation and Determining ecological outcomes' criteria have been achieved		Y	Y			Greengage
PLANN	ING AND MEASURES ON SITE						
REQ 2	Further planning to avoid and manage negative ecological impacts on-site is carried out (see Methodology) early enough to influence the concept design and design brief as well as site preparation planning (typically Concept Design stage).						
REQ 3	On-site measures for managing negative ecological impacts during site preparation and construction are implemented in- practice (e.g. mitigation measures to protect existing ecological features) (see Methodology).		1	1			Greengage
REQ 4	Criteria 2-3 are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 Ecological risks and opportunities (see Methodology).						
MANAG	GING NEGATIVE IMPACTS OF THE PROJECT						
REQ 5	ROUTE 1: Criteria 2 and 3 have been achieved.						
REQ 6	ROUTE 1: Negative impacts from site preparation and construction works are managed according to the mitigation hierarchy and no net impact has resulted.						
REQ 7	ROUTE 2: Criteria 2-4 have been achieved.		2	1		1	Greengage
REQ 8	ROUTE 2: Negative impacts from site preparation and construction works have been managed according to the hierarchy and either: TWO CREDITS - No overall loss of ecological value has occurred. ONE CREDIT - The loss of ecological value has been limited as far as possible.						
PRE-RE	QUISITE - MANAGING NEGATIVE IMPACTS ON ECOLOGY						
REQ 1	Criterion 6 (for Foundation route) or 8 (for Comprehensive route) in LE 03 has been achieved.						Regal and
REQ 2	The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.		Y	Y			Greengage
ECOLC	DGICAL ENHANCEMENT						
REQ 3	ROUTE 1: Locally relevant ecological measures have been implemented that enhance the site's ecological value. The measures adopted are based on (see Methodology). a: Recommendations from recognised 'local' ecological expertise and specialist input and guidance. b: Input from the project team in collaboration with representative stakeholders and data collated as part of 'Determining ecological outcomes' in LE 02.						

LE 04 ECOLOGICAL CHANGE AND ENHANCEMENT

<ul> <li>ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order:</li> <li>a: On site, and where this is not feasible,</li> <li>b: Off site within the Zone of Influence.</li> </ul>		1	1			Greengage
5 ROUTE 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.						
NGE AND ENHANCEMENT OF ECOLOGY						
ROUTE 2 ONLY: Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.		3	2		1	Greengage
IPLARY LEVEL CREDIT - DETERMINING THE ECOLOGICAL OUTCOMES OF THE SITE (1 CREDIT)						
7 The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.		1			1	Greengage
2 2 2 2 2	<ul> <li>ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order:         <ul> <li>a: On site, and where this is not feasible,</li> <li>b: Off site within the Zone of Influence.</li> </ul> </li> <li>ROUTE 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.</li> <li>NGE AND ENHANCEMENT OF ECOLOGY</li> <li>ROUTE 2 ONLY: Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.</li> <li>The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.</li> </ul>	ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). 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 5       ROUTE 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.         NGE AND ENHANCEMENT OF ECOLOGY       ROUTE 2 ONLY: Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology calculation Methodology – Route 2. Credits or eawarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.         MUEXPUENCE       CREDIT - DETERMINING THE ECOLOGICAL OUTCOMES OF THE SITE (1 CREDIT)         P 7       The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.	ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order:       1         a: On site, and where this is not feasible,       b: Off site within the Zone of Influence.       1         a: D site, and where this is not feasible,       b: Off site within the Zone of Influence.       1         a: D site, and where this is not feasible,       b: Off site within the Zone of Influence.       1         b: D ST 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres       1         nearest to, or relevant for, the site.       1         NGE AND ENHANCEMENT OF ECOLOGY       3         calculation Methodology – Route 2. Credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology calculation Methodology – Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.       3         MU-LARY LEVEL CREDIT - DETERMINING THE ECOLOGICAL OUTCOMES OF THE SITE (1 CREDIT)       1         2.7       The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.       1	ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order:       1       1       1         a: On site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1         a: S       ROUTE 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.       1       1       1       1         NGE AND ENHANCEMENT OF ECOLOGY       7       ROUTE 2: ONLY: Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology - Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.       3       2         APT       The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.       1	ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order:       1       1       1       1         a: On site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1       1         a: Do site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1       1         a: Do site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1       1         a: Do site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1       1         a: Do site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1       1         a: Do site, and where this is not feasible,       b: Off site within the Zone of Influence.       1       1       1       1         a: Do relevant for, the site.       ROUTE 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres       3       2         a: do at a collation Methodology - Route 2. Credits are awarded based on the change in ecological value occurring as a result of the project.	ROUTE 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order: a: On site, and where this is not feasible, b: Off site within the Zone of Influence.11111P5ROUTE 2: Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.5SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS <td< td=""></td<>

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABL	TARGETEI	POTENTIA	NOT FEASIB	RESPONSIBLE
	MANA	GEMENT						
		CT DELIVERY PLANNING						
	REQ 1	The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site.						
NTENANCE	REQ 2	The following must be achieved, according to the route being assessed: a: Foundation route (Route 1) - Criterion 6 in LE 03 has been achieved. b: Comprehensive route (Route 2) - Criterion 8 in LE 03 has been achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been awarded.		Y	Y			Regal Construction and Greengage
JAIN	MANAG	GEMENT AND MAINTENANCE THROUGHOUT THE PROJECT (ROUTE 1 AND ROUTE 2)						
EMENT AND N	REQ 3	Measures have been implemented to manage and maintain ecology throughout the project. These measures are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). 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.		1	1			Regal Construction
JGY MANAG	REQ 4	A section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site (see Methodology). This should include detailed management and maintenance plans as required by landscape and asset managers as well as relevant parts of the handover information for occupiers written in a format that encourages understanding and supportive behaviours.		I	I			and Greengage
OLO	LANDS	CAPE ECOLOGY MANAGEMENT PLAN						
LE 05 LONG TERM EC	REQ 5	A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.11 covering at least the first five years after project completion as a minimum 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 develop and change over time c: Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework 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		1	1			Greengage
	REQ 6	The landscape and management plan or similar will be updated to support maintenance of the ecological value of the site (see sections relating to Maintenance and Monitoring in CIEEM, CIRIA, IEMA, for helpful guidance)						
		SECTION SUB-TOTAL		13	10	0	2	
POLLUTION								
	IMPAC ⁻	T OF REFRIGERANTS						
	REQ 1	NO REFRIGERANT USE THREE CREDITS: No refrigerants are used within the installed plant or systems. OR						
		PRE-REQUISITE						
SERANTS	REQ 2	All systems with electric compressors comply with the requirements of BS EN 378:2016 (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice.		2	1		1	Wallace Whittle
FRIC	REQ 3	IMPACT OF REFRIGERANTS						
KE	DEO 4	ONE CREDIT: Achieve a direct effect life cycle $CO_2$ equivalent emissions (DELC) of $\leq$ 1000 $CO_2$ -eq/kW. OR						
ACT OF	REQ 5	TWO CREDITS: Achieve a direct effect life cycle $CO_2$ equivalent emissions (DELC) of $\leq$ 100 $CO_2$ -eq/Kw, OR; All refrigerants used have a global warming potential (GWP) $\leq$ 10.						
IMP	LEAK D							
- 01								
POL	REQ 6	All systems are nermetically sealed or only use environmentally benign reingerants. OR						
Ľ	REQ 7	<ul> <li>a.I. Systems have a permanent automated refrigerant leak detection system, that is robust and tested, and capable of continuously monitoring for leaks OR;</li> <li>a.ii. An inbuilt automated diagnostic procedure for detecting leakage is enabled.</li> <li>b. In the event of a leak, the system must be capable of automatically responding and managing the remaining refrigerant charge to limit loss of refrigerant.</li> </ul>		1 1	1			Wallace Whittle
		All beating and bot water is supplied by pop-combustion systems. For example, only powered by electricity OP-						
ar quality	NLQ 1	Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the NO _x , Particulate matter and VOC levels for the corresponding appliance type, fuel and location. Some examples are shown below: GAS ONE CREDIT: GAS BOILER (NO _x ONLY) = 27 mg/kWh; GAS CHP (NO _x ONLY) = 34 mg/kWh. TWO CREDITS: GAS BOILER (NO _x ONLY) = 24 mg/kWh; GAS CHP (NO _x ONLY) = 30 mg/kWh.		0	2			
02 LOC/	REQ 2	BIOMASS BOILER ONE CREDIT: NO _x = 130 mg/kWh (low pollution location)/ 56 mg/kWh (high pollution location); PARTICULATE MATTER = 14 mg/m ³ (low pollution location)/ 6 mg/m ³ (high pollution location);		2	2			vvaliace Whittle

POL 02	PARTICULATE MATTER = 14 mg/m ³ (low pollution location)/ 6 mg/m ³ (high pollution location); VOC = 7 mg/m ³ . TWO CREDITS: NO _x = 70 mg/kWh (low pollution location)/ 50 mg/kWh (high pollution location); PARTICULATE MATTER = 11 mg/m ³ (low pollution location)/ 4 mg/m ³ (high pollution location); VOC = 5 mg/m ³ .			
PRE	REQUISITE			
RE	2.1 An appropriate consultant is appointed to demonstrate the development's compliance with all criteria.	Υ	Y	HDR
FLC	OD RESILIENCE			
RE	TWO CREDITS: A site-specific flood risk assessment (FRA) confirms the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration.			
RE	<ul> <li>ONE CREDIT: A site-specific FRA confirms the development is in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain. The FRA must take all current and future sources of flooding into consideration AND;</li> <li>One of the following must be achieved:         <ul> <li>a. The ground level of the building and access to both the building and the site, are designed (or zoned) so they are at least 600 mm above the design flood level of the site's flood zone.</li> <li>b. The final design of the building and the wider site reflects the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2017.</li> </ul> </li> </ul>	2	2	HDR

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAL	NOT FEASIBI	RESPONSIBLE
	MANA	GEMENT						
		CT DELIVERY PLANNING						
	REQ 5	Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site.		Y	Y			HDR
	SURFA	CE WATER RUN-OFF - RATE						
	REQ 6	Drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) shows a 30% improvement for the developed site compared with the pre-developed site. This should comply at the 1-year and 100-year return period events.						
1ENT	REQ 7	Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place.		1	1			HDR
GEN	REQ 8	Calculations include an allowance for climate change, In accordance with best practice planning guidance.						
ANA	SURFAG	CE WATER RUN-OFF - VOLUME						
ER MI	REQ 9	Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND						
surface wati	REQ 10 REQ 11	EITHER - Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for the 100-year 6-hour event, including an allowance for climate change Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques.						
POL 03 FLOOD AND S	REQ 12 REQ 13	<ul> <li>OR</li> <li>Justification from the appropriate consultant indicating why REQ 10 and 11 cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options.</li> <li>Drainage design measures are specified so that the post-development peak rate of run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options: <ul> <li>a. The pre-development one-year peak flow rate</li> <li>b. The mean annual flow rate (Qbar)</li> <li>c. 2L/s/ha.</li> </ul> </li> <li>For the one-year peak flow rate, the one-year return period event criterion applies.</li> </ul>		1	1			HDR
	REQ 14	Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place.						
	REQ 15	Calculations include an allowance for climate change, In accordance with best practice planning guidance.						
	MINIMI	SING WATERCOURSE POLLUTION						
	REQ 16	There is no discharge from the developed site for rainfall up to 5 mm (confirmed by the appropriate consultant).						
	REQ 17	Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques.						
	REQ 18	Areas with a high risk of contamination or spillage of substances, such as petrol and oil, have separators are installed in surface water drainage systems.						
	REQ 19	Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system.		1	1			HDR
	REQ 20	recommendations of documents such as the SuDS manual and other relevant industry best practice.						
	REQ 21	A comprehensive and up to date drainage plan of the site will be made available for the building occupiers.						
	REQ 22	Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.						
	REQ 23	All external storage and delivery areas are designed and detailed in accordance with the current best practice planning guidance.						
	REDUC	TION OF NIGHT TIME LIGHT POLLUTION						
HT HT	REQ 1	External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users. OR						
UCTIO ME LIG JTION	REQ 2	The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 2011.						
RED IT TIN OLLU	REQ 3	External lighting (except safety and security lighting) is automatically switched off between 23:00 and 07:00.		1	1			Wallace Whittle
OL 04 RE NIGHT ' POL	REQ 4	If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes.						
۵_	REQ 5	Illuminated advertisements are designed in compliance with ILP PLG05.						
S	REDUC	TION OF NOISE POLLUTION						
ION	REQ 1	There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site. OR						
ON OF ON	REQ 2	a. Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed assessed site, inclusive of existing plant on a building.						

POL 05 REDUCTION OF NOISE POLLUTION	REDUC	TION OF NOISE POLLUTION						
	REQ 1	There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site. OR					Γ	
	REQ 2	A noise impact assessment compliant with BS 4142:2014 is commissioned. Noise levels must be measured for: a. Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed assessed site, inclusive of existing plant on a building. b. Noise rating level from the assessed building.						
	REQ 3	The noise impact assessment must be carried out by a suitably qualified acoustic consultant.	1	1				Acoustician
	REQ 4	The noise level from the assessed building, as measured in the locality of the nearest or most exposed noise sensitive development, must be at least 5dB lower than the background noise throughout the day and night.						
	REQ 5	If the noise sources from the assessed building are greater than the levels described in criterion 4, measures have been installed to attenuate the noise at its source to a level where it will comply with the criterion.						
		SECTION SUB TOTAL	12	11	0	1		

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		BREEAM REQUIREMENTS	MANDATORY STANDARDS	AVAILABLE	TARGETED	POTENTIAL	NOT FEASIBI	RESPONSIBLE
	MANA	GEMENT						
	PROJE	CT DELIVERY PLANNING						
INNOVATION								
	EXEMP	LARY CRITERIA						
		Where the building demonstrates exemplary performance by meeting defined exemplary level performance criteria in one or more of following BREEAM assessment issues:						
INNOVATION	REQ 1	<ul> <li>1.a: Man 01 Project brief and design (Simple buildings only)</li> <li>1.b: Man 03 Responsible construction practices</li> <li>1.c: Hea 01 Visual comfort</li> <li>1.d: Hea 02 Indoor air quality</li> <li>1.e: Hea 06 Security</li> <li>1.f: Ene 01 Reduction of energy use and carbon emissions</li> <li>1.g: Wat 01 Water consumption</li> <li>1.h: Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)</li> <li>1.i: Mat 03 Responsible sourcing of construction products</li> <li>1.j: Wst 01 Construction waste management</li> <li>1.k: Wst 02 Use of recycled and sustainably sourced aggregates</li> <li>1.i: Wst 05 Adaptation to climate change</li> <li>1.m: LE 02 Ecological risks and opportunities</li> <li>1.n: LE 04 Ecological change and enhancement</li> <li>1.o: Pol 03 Flood and surface water management (Simple buildings only).</li> </ul>		10			10	
	REQ 2	One innovation credit can be awarded for each innovation application approved by BRE Global, where the building complies with the criteria defined within an approved innovation application form.						
		SECTION SUB TOTAL		10	0	0	10	