BREEAM 2014 (Other Buildings - Community Centre)

Rev 1 17.10.2017 (T.Pegg)

Rev 2 14.06.2018 (T.Pegg)

Rev 3 21.06.2018 (T.Pegg) Rev 4 28.06.2018 (C.Castaneda)

Rev 5 16.07.2018 (T.Pegg) Rev 6 24.09.2018 (T.Pegg) Rev 7 09.11.2018 (T.Pegg) Rev 8 17.01.2019 (L. Porthe) FULLY FITTED

Target Rating 70.00% Targeted score: 73.48%

Planning Condition 44
60% Energy credits (13.8 required) = 15 targeted
60% Water credits (5.4 required) = 6 targeted
40% Materials credits (5.6 required) = 4 targeted

Pre Assessment Review - HNCC

(indicative total score: following design team input to date)



Credits status: Targeted Not targeted Evidence received and signed off Potential credit Evidence outstanding Very onerous / unachievable

Actions (with Timescale) Stages 1 and 2 Stage 3 Tender Stage 4 Stage 5

Categories	Credit Name	Credits available	Credits breakdown	Credits status	Overall Weight	Overview of requirements	Location of information	Action	Responsible Party	Risk	Stage					
	Man 01: Sustainable Procurement		1	1		 decision making involves client, building occupier, design team and contractor from <u>Stage 2 (Stage C)</u> training scheduled for tenants 	Project directory-HNCC-MCB-ZZ-XX-PD-J-0001-P1	PM provided project directory and completed proforma.	PM	Low	from 2 onwards					
		4	1	1	2.29%	Prior to end of Stage 2 (Stage C) - relevant bodies consulted to influence the design - consultation plan shows consultation at key milestones, feedback provision to relevant bodies - feedback to be implemented by end of Stage 4 (Stage D)	Pre App Document No.3, RCKa, Sept 2018. Addendum Design and Access Statement Heritage Statement Planning Statement Involvement Statement of Community	Public consultation has been ongoing throughout the Pre Application process as explained in Pre App Document No.3, RCKa, Sept 2018. BREEAM assessor review planning consultation documents and ensure feedback addressed by end of Stage 4	Planning Consultant + BREEAM	Medium	by end of 2					
		4	1	1		At Stage 1 (Stage B) BREEAM AP appointed to assist in the setting of BREEAM targets. These must targets must also be achieved at BREEAM design stage	FW FW HNCC - BREEAM - CLIENT INSTRUCTION HNCC - BREEAM 2014 assessment - Fee Proposal (April 2018) Sustainability Statement	t Client appointed BREEAM AP	Client	Low	at 1					
			1	1		BREEAM AP attends regular meetings to monitor & report on BREEAM progress throughout design. Note: previous BREEAM AP credit must have been achieved.	Meeting minutes / emails / progress reports	Client appointed BREEAM AP	Client	Low						
Management	Man 02: Life cycle cost and service life planning	4	4	4	2.29%	At Stage 2 (Stage C) (2 credits) Elemental Life Cycle Cost (LCC) analysis in line with "Standardised method of life cycle costing for construction procurement" PD 156865:20081. By end of Stage 4 (mid Stage F) (3rd credit) Component level LCC analysis to be completed (4th credit) capital cost for the building in pounds per square metre (£k/m2) for: Construction, including prep works,materials, equipment/labour Site management Construction financing Insurance and taxes during construction	HNCC Stage 2 report LCC	LLC study has been instructed by the PM in September 2018. All 4 credits are targeted.	PM	Medium	at 2					
			PRE REQUISITE	pre requisite		Inspection and testing All timber and timber-based products used on the project is 'Legally harvested	Procurement policy / certificates o similar		Client							
			1	1	-	and traded timber' Principal contractor operates an environmental management system (EMS) (e.g. ISO 14001 or BS 8555 compliant) Onsite pollution prevention practices in line with PPG 6 - Working at construction and demolition-sites:	Tender pack requirement Contractor's ISO 14001 or BS 8555 compliant certificate / On site pollution prevention practices in line with PPG 6 - narrative	Requirement for contractor to operate an EMS (ISO 14001 or BS 8555) and onsite pollution prevention practices in line with PPG 6 to be included in tender (Carlos to prepare document)	(Contractor)	High - Dependent on contractor perfromance	Tender					
	Man 03: Responsible Construction Practices	6	1	1	3.43%	<u>During Stages 5 and 6</u> (Stages J and K): BREEAM AP attends regular meetings to monitor & report on BREEAM progress throughout construction/handover period.		Client to confirm appointment for CONSTRUCTION stage BREEAM AP	Client (Contractor)	Low	During 5 & 6					
	(MANDATORY - 1 credit under CCS Scheme for Excellent)		2 2		CCS score	Tender pack requirement	Requirement for contractor to achieve CCS score 35 or above	PM	High - Dependent on contractor perfromance							
								2	2		Monitoring of construction site impacts 1st credit: energy and water records 2nd credit: transport of materials and waste (includes ground works and landscaping)	Tender pack requirement	Requirement for contractor to score 2 credits, recording and reporting energy, water and transport of materials and waste, (including ground works and landscaping waste) througout the build programme	PM	High - Dependent on contractor perfromance	Tender
		Exemplary	Exemplary	+1		CCS score of 40 or above	Tender pack requirement	Oppportunity to achieve an extra point for CCS of 40 or above - Needs to be included as a requirement for the contractor	Client (Contractor)	High - Dependent on contractor perfromance						

Categories	Credit Name	Credits available	Credits breakdown	Credits status	Overall Weight	Overview of requirements	Location of information	Action	Responsible Party	Risk	Stage
			1	1		scheduled commissiong of services / inspection of fabric conducted prior to handover commissioning monitor so comssioning in line with BSRIA/CIBSE	Tender pack requirement	This requirement need to be included within Contractor's specifications	PM	High - Dependent on contractor perfromance	Tender
			1	1		(by end of Stage 4) specialist commissioning manager for complex systems appointed prior to Stage 5 (Construction) to undertake design reviews and inform commissioning schedule (1st credit under Man 04 must have been awarded)	Specialist commissioning manager appointment	A Specialist Contractor rather than a general sub- contractor, needs to be appointed prior to the start of Construction	Client	Medium - costs implications	End of 4
Management	Man 04: Commissioning and handover (MANDATORY - 1 credit for User Guide for Excellent)	4	1	1	2.29%	Integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths is qualify assured through: Air tightness testing undertaken by professionals of ATTMA (Air Tightness Testing and Measurement Association) and UKAS accredited OR thermographic surveys (Level 2 qualified) Any defects to be rectified before handover	Tender pack requirement	Professional Air tightness testing or thermographic surveys to be included as part of the instruction and defects rectified before handover	PM	PM High - Dependent on contractor perfromance Client Medium - costs implications PM High - Dependent on contractor perfromance High - Dependent on contractor perfromance Client (Contractor) High - Dependent on contractor perfromance Client (Contractor) Perfromance Client Client Contractor perfromance Client Architect Architect	
			1	1		Building user guide to provided to tenants, including the following: a. The building's design intent b. The available aftercare provision and aftercare team main contact(s), including any scheduled seasonal commissioning and post occupancy evaluation c. Introduction to, and demonstration of, installed systems and key features, particularly building management systems, controls and their interfaces d. Introduction to the Building User Guide and other relevant building documentation, e.g. design data, technical guides, maintenance strategy, operations and maintenance (O&M) manual, commissioning records, log book etc. e. Maintenance requirements, including any maintenance contracts and regimes in place.	Tender Pack requirement	Production of a compliant Building User Guide to be included within contractor's specifications	PM		
	Man 05: Aftercare (MANDATORY - 1 credit for Seasonal		1	1	1.71%	Aftercare support in place including: a) meeting between aftercare team and tenant b) onsite Facilities Manager training c) onsite aftercare support during first 6 months d) helpline after care support 6-12 months after occupation e) collection of energy + water data during first 12 months of occupation	Tender pack requirement	After care support plan to be included within contractor's specifications		contractor	
	commissioning for Excellent)	3	1	1	1	seasonal commissioning activities will be completed over a minimum 12-month period after handover	Tender pack requirement	Compliant Seasonal Commissoning activities to be included within contractor's specifications		contractor	Tender
			1	1		POE committed to after 12 month occupation by 3rd party		Client to confirm whether this credit is to be targeted - Needs to be carried out by an independent third party	Client		
Total	Management Credits			21	12.01%						
			1			Glare control - ext. shading / blinds (transmittance < 10%) to shade against summer+winter glare. (Curtains not acceptable as can't provide graduated shading) - If only ext. shading used, modelling is required to show no glare during occupied hours.		to confirm whether this credit is to be targeted / CONFIRM THIS CREDIT IS NOT BEING TARGETED NOW	Architect		
Health & Wellbeing	Hea 01: Visual Comfort	4 (Offices) or 5 (Retail)	1 (2 credits for Retail)	+1		Daylight OTHER BUILDING - COMMUNITY CENTRE 1 credit available, requiring the following: 80% of area has average daylight factor = 2% AND a) or b) a) uniformity ratio, b) view of sky & room depth criterion met		ARCHITECT AND DAYLIGHT CONSULTANT TO CONFIRM WHETHER IT CAN BE ACHIEVED 2% Average Daylight Factor (ADF) required in all occupied rooms. 3% ADF required in atrium. This credit is relevant for 'occupied areas' which are typically defined as 'being occupied for 30mins or more'	Architect + Daylight Consultant		
		Out (view of I window ajdac	View Out a) 95% of occupied floor area is within 7m of window that has a View Out (view of landscape or buildings at eye level, with 10m between window ajdacent building). b) Window area must be <20% of wall area		NOT TARGETED: unachieavable as no windows on east façade at GF as confirmed by architects at BREEAM meeting on 22.06.2018 For Reference: 95% of floor area is within 7m of a vertical window which is at least 20% of the wall area Sports halls are excluded from this credit.						
			1	1	0.88%	int & ext lighting in line with guidelines regarding lux (illuminance) levels - INTERNAL: SLL Code for Lighting 2012 and CIBSE Guide 7 (computers screens) EXTERNAL:BS 5489 (roads/amenity) and BS12464 (workplaces) 'zoning required for int. lighting (no more than 4 workstations, central/ window desks, display & counter areas,	Is it applicable to the community centre? Are there computers? Sport facilities an excluded? What is the layout for the community centre?		M+E	Low- M+E team to define specifications and areas	

Categories	Credit Name	Credits available	Credits breakdown	Credits status	Overall Weight	Overview of requirements	Location of information	Action	Responsible Party	Risk	Stage	
				1	1		air quality plan to include: a. Removal of contaminant sources b. Dilution and control of contaminant sources c. Procedures for pre-occupancy flush out d. Third party testing and analysis e. Maintaining indoor air quality in-use	Tender Pack requirement	Air Quality Plan requirement to be included within contractor's specifications	РМ	High - Dependent on contractor perfromance. Required 3rd party testing and analysis	
			1	+1		Ventilation: a) or b) a) intakes are 10m from extracts, and 20m from roads/car parks (if natural vent strategy, windows >10m from roads/car parks) b) ventilation designed in line with BS 13779 Annex 2 and 3 (filtration) Buildings will unpredictable occupancy levels must have CO2 linked/demand led ventilation.		M+E to confirm at Detailed Design.	M+E			
Health & Wellbeing	Hea 02: Indoor Air Quality	5	1	1	3.53%	VOC (products) All decorative paints and varnishes meet relevant standards required by BREEAM (Table 18 of BREEAM 2014 guidance) 5 of the following also comply with relevant standards: - wood panels - timber structures e.g. glulam - wood flooring - Resilient textile and laminated floor coverings (e.g. vinyl, rubber) - suspended ceiling tiles - flooring adhesives - wall coverings	Products specification proforma	Architect to provide specification	Architect	rchitect Low - architect to provide specification	Tender	
	Tiea oz. indoor Air Quanty	(2 for Shell + Core)	1 1		VOC (post construction testing) Formaldehyde and Total VOC concentrations are measured post construction, pre occupancy -remedial works committed to in order to achieve formaldehyde (100μg/m3) and Total VOC (300μg/m3) Testing to be inline with: a. BS ISO 16000-4: 2011 Diffusive sampling of formaldehyde in air3 b. BS ISO 16000-4: 2011 VOCs in air by active sampling4 c. BS EN ISO 16017-2: 2003 VOCs - Indoor, ambient and workplace air by diffusive sampling5 d. BS ISO 16000-3: 20116 Formaldehyde and other carbonyls in air by active sampling.		Architect to provide specification / Contractor to carry out the testing pre occupancy?	Architect / Contractor?	High - Contractor to carry out testing. May require remedial work			
			1	1		Potential for natural ventilation 'occupied areas capable of using nat vent, proven by either: - openable windows = 5% floor area, OR, - vent rates and thermal comfort achieved by CIBSE AM10 compliant modelling - 2 levels of user, ventilation control - purge (odour/overheating) - background vent for good indoor air quality given the occupancy & internal pollution levels of the space		M+E to confirm that Natural ventilation strategy can allow for 2 levels of user control e.g. openable windows with trickle vents TBC confirmed w/c 21/01/2019	M+E	or? carry out testing. May		
	laboratories NOT ASSESSED UNDER OFFICES OR RETAIL											
			1	1		by end of Stage 3 (Stage C) CIBSE AM11 modelling to prove thermal comfort in winter & summer in line with CIBSE Guide A (mechanically ventilated buildings) and CIBSE TM52 (natural ventilated buildings) - Time out of Range (TOR) values are approved by MEP engineer	TM 52 model and energy statement	M+E to confirm. Compliance with these critieria may impact internal daylight levels. TBC confirmed w/c 21/01/2019	M+E			
	Hea 04: Thermal Comfort	Thermal Comfort 3 1.76% Mechanically Ventilated / Mixed Mode Buildings Time period: 2030s Emissions scenario: Medium (A1B) 1.76% Ontrols + zoning - 1st credit achieved, and modelling informed temp controls strategy Strategy to include: - zoning for heating/cooling (e.g. perimeter/central areas) - user control of heating/cooling developed with building users/	1	+1		- achieve 1st credit above - pass overheating modelling using DSY (Design Summer Year) weather files, as follows: Natural ventilation: Time period: 2050s Emissions scenario: Medium (A1B) Mechanically Ventilated / Mixed Mode Buildings Time period: 2030s		Client to confirm. Compliance with critieria may have significant adverse effects on internal daylight levels. TBC confirmed w/c 21/01/2019	Client (M+E)		by end of 3	
			M+E to confirm that this credit can be achieved for the Office areas M+E to confirm that Hea 4 (1st credit) regarding CIBSE Guide A and TM52 analyses is achieved. TBC confirmed w/c 21/01/2019	M+E								

Categories	Credit Name	Credits available	Credits breakdown	Credits status	Overall Weight	Overview of requirements	Location of information	Action	Responsible Party	Risk	Stage
		3	1	1		sound insulation between acoustically sensitive rooms and other occupied areas complies with the performance criteria given in Section 7 of BS 8233:2014 (section 7.5 if unfurnished, section 7.7.6 if furnished)	Stage 2 report		Acoustician		
	Hea 05: Acoustic Performance	(Only 1 for Retail	1	+1	1.76%	Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014.	Stage 2 report	Acoustician to confirm compliance with criteria by email or report		te by e	
		Shell+core)	1	1		Achieve sound absorption & reverberation times, where applicable, set out in Section 7 of BS 8233:2014. where no 'speech/performance' areas, credit awarded by default	Stage 2 report / specification for MVHR systems to 3db below BS 8233 noise limits		Acoustician		Tender
Health & Wellbeing			1	1		- compliant external areas e.g. pedestrian/cycle paths dimensions/connections to local highways, BS 5489 compliant lighting etc compliant dedicated delivery access and drop-off areas		Architect to confirm a) pedestrian & cycle paths are compliant b) delivery areas/drop-off areas are compliant M+E to confirm external lighting will be BS5489 compliant	Architect & M+E		
Weibenig	Hea 06: Safety and Security	2	1	1	1.76%	At Stage 2 (Stage C) 'secure by design consultation and implementation	Secure by Design Meeting notes and recommendations 16-07-2018	Meeting should discuss the following: 1. A visual audit of the site and surroundings, identifying environmental cues and features pertinent to the security of the proposed development. 2. Identify any other stakeholders regarding the SbD Officer that should be consulted regarding the development's security. 3. Identify risks specific to the proposed, likely or potential use of the building(s). 4. Identify risks specific to the proposed, likely or potential user groups of the building(s). 5. Identify any detrimental effects the development may have on the existing community. Architect and planning consultant met with Secure by Design officer on 16.07.2018. Jim Cope (Police Constable - Design Out Crime Officer forwarded meeting minutes to Nick Grant at Iceni (planning consultant) on 19th July 2018. Architect to confirm drawings and security measures have been implemented following advice given during the meeting	Architect + Planning Consultant		by end of 2
Total Hea	alth & Wellbeing Credits			11	9.69%						
	Ene 01: Reduction of CO ₂ Emissions (Mandatory - 5 credits Excellent)	12	12	6	3.91%	SBEM calculations to be undertaken.	SBEM calculations Revised Energy Statement	M+E to undertake updated SBEM modelling. VZDV modelling results (Rev 3 - 28.10.16) indicates credit score of 6. TBC confirmed w/c 21/01/2019	M+E	E	
	Ene 02: Energy Monitoring (MANDATORY - 1st cred Very Good or Excellent)	2	1	1	1.30%	- Submetering of space Heating Domestic Hot Water, - Humidification, - Cooling Fans (major), - Lighting- Small Power to allow 90% of each fuel use (e.g. elec, gas) to be monitored - BMS to be installed (where floor area >1,000m2), or all meters with pulsed output to allow future connection to a BMS	M+E Specifications	M+E to confirm inclusion within M & E specifications	M+E		Tender
	very dood of Excellent,		1	1		- sub metetering by tenant area OR floorplate in single tenancy	M+E Specifications	M+E to confirm inclusion within M & E specifications	M+E		
	Ene 03: External Lighting	1		1	0.65%	- average initial luminous efficacy at least 60 lm/W - daylight and PIR control The above requirements include decorative & floodlighting	M+E Specifications	M+E to confirm inclusion within M & E specifications - George to confirm daylight and PIR control W/C 21.01.2019	M+E		
Energy			1	1	i	Passive design - 1st credit under Hea 4 is achieved - at Stage 2 (Stage C) a review of passive measures is undertaken, covering the following: 1. Site location 2. Site weather 3. Microclimate 4. Building layout 5. Building orientation 6. Building form 7. Building capanic 8. Thermal mass or other fabric thermal storage 9. Building occupancy type 10. Daylighting strategy 11. Ventilation strategy 12. Adaptation to climate change.	Reviewed Energy Statement	M+E to ensure relevant criteria are considered within the energy strategy to be issued for planning. All items have been considered within thermal modeling which has been undertaken during July and August 2018. TBC confirmed w/c 21/01/2019	: M+E		by end of 2
	Ene 04: Low carbon design	3	1	1	1.96%	Free cooling - Passive design credit above is achieved - free cooling was included within Passive Measures review - one of the following strategies is adopted: nightime cooling, displacement vent w/o active cooling, natural ventilation w/o mechanical cooling, ground source cooling	Reviewed Energy Statement	M+E to incorporate night-time cooling within natural ventilation strategy.	M+E		Tender
			1	1		- at Stage 2 (Stage C) a low/zero carbon feasibility study is undertaken with its recommendations incorporated into the design $-5\%\ CO_2$ reduction achieved	SBEM calculations Revised Energy Statement	M+E to confirm once updated SBEM model is completed for the planning submission. The draft SBEM calculations achieve a 10% CO2 reduction for the community centre as per calculations undertaken by McBains in August 2018. TBC confirmed w/c 21/01/2019	M+E		'by end of 2
	Ene 05: Energy efficient cold storage	3	1			design, installed and commissioned in line with BREEAM criteria ?			M+E		
	NOT ASSESSED UNDER OFFICES OR RETAIL	3	1			achieves saving in indirect greenhouse gas emissions?			M+E		
			1	1		transport demand analysis according to BS 25745 and lowest energy solution specified use of regenerative drives to be considered	Transport demand analysis ??	M+E to confirm whether a transport demand analysis has been undertaken, or if not, to undertake this study.	M+E		
	Ene 06: Energy Efficient Transportation Systems	3	2	2	1.96%	The following energy efficient features included: standby mode lighting average efficacy at least 55 Im/W variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.	Traffic analysis ??	M+E to confirm that the energy efficient features will be specified for all relevant lifts.	M+E		Tender

Categories	Credit Name	Credits available	Credits breakdown	Credits status	Overall Weight	Overview of requirements	Location of information	Action	Responsible Party	Risk	Stage
Energy	Ene 08: Energy Efficient Equipment	2	2	2	1.30%	Demonstrate unregulated energy reductions from relevant systems	M+E specifications for client to adopt	Potential credit: considered unlikely Community Centre will install energy efficient appliances "M+E to demonstrate unregulated energy reductions from relevant systems: a) small power & plug-in equipment b) swimming pool c) Communal laundry facilities with commercial sized appliances d) data centres e) computer rooms f) Domestic scale appliances (individual and communal facilities) g) healthcare equipment h) kitchen & catering facilities	M+E / Client M+E / Client		
То	otal Energy Credits			17	11.08%						
	Tra 01: Public Transport Accessibility	4 (4 for Other Type 2) (5 for Retail)	4 (4 for Other Type 2) (5 for Retail)	4	3.27%	PTAL rating, which covers - The distance (m) from the main building entrance to each compliant public transport node - The public transport type(s) serving the compliant node e.g. bus or rail - The average number of services stopping per hour at each compliant node during the standard operating hours of the building for a typical day	PTAL rating document	PTAL rating is 3 (where 6b is the maximum possible score). Accessibility Index = 12.32. Postcode: N19 5DQ WebCAT Access Date: 28/06/2018 BREEAM Credit equivalent = 4 credits The Community Centre is classed as 'Other Building - type 2' which is defined by BREEAM as "a building occupied by a number of core staff/employees with a larger number of consistently frequent visitors/users (either resident or non-resident)"	BREEAM	Low	
	Tra 02: Proximity to Amenities	1	1	1	0.82%	Offices & Retail are classed as Building Type 1 and thus must be within 500m of the following: - food outlet - cash machine - access to sports/leisure facility (e.g. tennis courts, gym)	Cash machine, Dartmouth Park and Food outlet within 500 m maps	For the purposes of Tra 2, the Community Centre is classed as 'Other Building - type 6'. requiring the following amenities to be within 500m walking distance of the proposed development: Food outlet - Pub within 85m Park - Dartmouth Park is within 500m Minimum 2 ammenities within 500m required for 1 credit, hence 1 credit achieved. The postcode of the Community Centre is N19 5DQ	BREEAM	Low	Tender
Transport	Tra 03: Cyclist Facilities	2	1	1	1.64%	- 1 cycle space per 10 members of staff (halved in city centre locations) small RETAIL: 10 spaces in total (halved in city centre locations) 2 of the following are provided:		The Building Type is as per Tra 1 (which requires 1 space per 10 staff; 1 space per 10 visitors) Architect to confirm number of cycle spaces for community centre. Architect to confirm anticipated number of buildings users (staff and visitors separately) From the planning Transport Statement (JMP, 8th Sept 2016) the following are assumed: :23 spaces are providing across the Basement and ground floor levels i.e. sufficient for 230 staff and visitors The Building Type is as per Tra 1	Architect		
	Tra 04: Max. car parking capacity	2	2	2	1.64%	- lockers - showers - drying rooms 1 credits: 1 space per 3 - 5 building users depending on Acessibility Index 2 credits: 1 space per 4 - 6 building users depending on Acessibility Index		Architect to confirm a) which 2 of the 4 possible facilities are provided b) no. of showers, benches, clothes hooks, drying rooms, changing rooms provided Architect to confirm that there will be no car parking provision for the development, either for residential nor non-residential	Architect Architect		
	Tra 05: Travel Plan	1	1	1		Prior to construction travel plan responds to the needs of a site specific transport assessment - what measures will be implemented? And to minimise private car use?	Where is the BREEAM addendum?	Transport consultant to provide BREEAM addendum to the Transport assessment and travel plan provided as part of the planning submission.	Transport Consultant		by end of 3
Tota	al Transport Credits			10	8.19%						
	Wat 01: Water Consumption (MANDATORY - 1 credit Very Good or Excellent Wat 02: Water Monitoring	2	2	2	1.56%	 2 credits = 25% reduction in water consumption will be achieved through water efficient fittings. <u>Sanitaryware only. Process water in industrial buildings not assessed.</u> - further credits require RWH or greywater 		Architect: to confirm which low flow sanitary fittings (WCs, urinals, taps, showers, baths, dishwashers, washing machines) will be specified in order to achieve 2 credits	Architect		
Water	(MANDATORY - mains supply meter for Very Good or Excellent)	1	1	1	0.78%	 - water meter with pulsed output on mains supply, connected to BMS - 10% water demand areas/plant must be sub metered 	M+E Specifications	M+E to confirm inclusion within M & E specifications	M+E		
water	Wat 03: Water Leak Detection and Prevention	2	1	1	1.56%	water leak detection system on mains supply: - within building - between building and site boundary - water supply shut off in WC areas, using any of following: - A programmed time controller i.e. switch water on and/or off at predetermined	M+E Specifications	M+E to confirm inclusion within M & E specifications	M+E		
	Wat 04: Water Efficient		1	1		times A presence detector and controller - A central computer for overall control identify unregulated water use than could be reduced such as	M+E Specifications	M+E to confirm inclusion within M & E specifications	M+E		Tender
	Equipment	1	1	1	0.78%	Water efficient irrigation e.g. drip fed, low water plants, use RWH water	M+E Specifications	M+E to confirm inclusion within M & E specifications i.e. drip fed irrigation, RWH for irrigation, or rely solely on precipitation	M+E		
T	otal Water Credits			6	4.68%						
	Mat 01: Life Cycle Impacts	5	5	1	0.96%	Green Guide ratings for: - External Walls,- Windows,- Roof,- Upper Floor Slabs,- Internal Walls,- Floor Finishes /Coverings.	Mat 1 calculator	Architect to provide details for Mat 1 calculator (build-ups, areas, Green Guide ratings + numbers)	Architect		
Materials	Mat 02: Hard Landscaping and Boundary Protection	1	1	1	0.96%	80% to have A or A+ ratings (by area)	Landscaping materials details	Architect to provide details of hard landscaping materials' Green Guide ratings	Architect		

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	Mat 03: Responsible Sourcing of Materials (MANDATORY - all timber in line with UK Govt procurement policy i.e. legal & sustainable Very Good + Excellent)	4	4	1	0.96%	80% of materials in following elements are responsibly sourced • Structural Frame; • Ground floor; • Upper floors (including separating floors); • Roof; • External walls; • Internal walls; • Internal walls; • Foundation/substructure; • Fittings: includes stair case, windows (frame and glazing units), doors (internal and external), floor finishes and any other significant fitting or finish present; and • Hard landscaping.		Requirement to source materials for the project in accordance with a documented <u>sustainable procurement plan</u> , inline with BS 8902, local sourcing review, & monitoring procedures of purchasing process to be placed within contractor's specification Contractor to review and feedback (for applicable materials and process) to BREEAM Assessor. Information included in the following tables of BREEAM guidance document: Table 44 (list of applicable building elements (walls, floors etc.) and materials (bricks, metal, concrete etc.)	Client (Contractor)		Tender
Materials	Mat 04: Insulation	1	PRE REQUISITE	PRE REQUISITE		Any new insulation specified for use within the following building elements must be assessed: - External walls,- Ground floor,- Roof,- Building services		New build development so all insulation will be assessed	Architect + M+E		
iviateriais			1	1	0.96%	Thickness and conductivity of insulation (Green Guide & responsible sourcing assessed as part of Mat 1 and Mat 2 respectively)		Architect to confirm all insulation will be A or A+ rated according to the BRE's Green Guide.	Architect + M+E		
	Mat 05: Designing for Durability & Resistance	1	1	1	0.96%	-areas of high vehicular/pedestrian traffic are protected, including: entrance, corridors, stairwells, lifts, delivery/storage areas, car parking areas - show consideration of durability of materials of various items, including; balconies, external walls,		Architect to provide annotated drawings, summarising consideration of Environmental and Material degradation factors as per Table 50 in the BREEAM guidance document.	Architect	from	
	Mat 06: Material efficiency	1	1	1	0.96%	From Stage 1 (Stage B) to construction 'identify appropriate measures to optimise the use of materials in building design, procurement, construction, maintenance and end of life, stages e.g. show reports and calculations to show materials reduction through design changes		Architects have commenced with materials optimisation study INFO ON REQUIREMENTS Architect to implement recommendations by end of Stage 5	Architect		from 1 to end of 5
Tot	al Materials Credits			6	5.76%						
	Wst 01: Construction Waste Management	3	3	2	3.19%	reduced waste volumes generated		Requirement for contractor to provide BREEAM compliant Site Waste Management Plan, committing to max waste generated <7.5 m3 or 6.5 tonnes per 100 m2 (gross internal floor area) and diverting volumes of construction waste (from demolition (80%) and construction(70%)) away from landfill to a recycling facility.	Client (Contractor)		
		1	1	1		diversion of demolition AND construction waste from landfill		Requirement for contractor to confirm % that will be diverted from landfill to be included whithin specificactions	Client (Contractor)		
	Wst 02: Recycled Aggregates	1	1	+1		>25% by weight or volume) of recycled or secondary aggregates in 'high-grade' building aggregate uses.		Structural Engineer to confirm whether this would be feasible	Struct. Eng		Tender
Waste	Wst 03: Operational Waste (Mandatory - 1 credit for Excellent)	1	1	1	1.06%	dedicated space for recyclables : 2m2 per 1000m2 GEA (+ 2m2 where catering facilities exist) - compactors to be used where appropriate		Architect to confirm area (m2) dedicated to recyclable materials.	Architect		
	Wst 04: Speculative floor and ceiling finishes	1	1			prior to full fit-out works, carpets, other floor finishes and ceiling finishes have been installed in a show area only .		Confirm that floor finishes will not be installed, or only in a show area, if tenants are not known and can thus inform the finishes' specifications.	Architect		Tender
	Wst 05: Adaptation to climate change	1	1	1	1.06%	At Stage 2 (Stage C) Undertake climate change adaptation strategy appraisal for structural and fabric resilience i.e. risk assessment of climate change impact on structure and fabric from 'extreme' weather	Climate Adaptation Strategy appraisal	Architects have commenced with climate adaptation strategy appraisal. SEE REQUIREMENTS Architect to implement recommendations by end of Stage 4.	Architect		by end of 2
	Wst 06: Functional adaptability	1	1	1	1.06%	At Stage 2 (Stage C) Undertake functional adaptation strategy which includes recommendations for measures to be incorporated to facilitate future adaptation. These measures must then be implemented e.g. façade replacement, plant replacement, accessibility to local power/data infrastructure	Future Adaptation Strategy appraisal	Architects have commenced with future adaptation strategy appraisal. SEE REQUIREMENTS Architect to implement recommendations by end of Stage 4.	Architect		implemented by end of 4
Т	otal Waste Credits			6	6.37%						
	LE 04. Site Salastian	1	1	1	1%	Use previously developed		100% of proposed development is on previously developed land	Ecologist		
	LE 01: Site Selection	1	1	+1		If contaminated land, remedial work conducted	IS THIS A TARGET?	Confirm from site investigations	Ecologist		Tender
Land Use and Ecology	LE 02: Ecological Value of Site and Protraction of	1	1	1	2%	Use land of LOW ecological value and protect existing features throughout construction ened ecologist OR fulfil checklist which is quite complicated, esp. if trees / hedgreow onsite e.g. appoint ecologist to help with other LE credits	New Report from October 2018	Ecologist confirmed in writing that the site is land of inherently low ecological value and therefore no protection of ecological	Ecologist		
	Ecological Features	1	1	1		Prior to construction All existing features of ecological value within the assessment zone are adequately protected from damage during clearance, site preparation and construction activities in line with BS 42020: 2013	New Report from October 2018	eatures is required. (Ecological report, Syntegra, March 2016)	Ecologist		by end of 4

Categories	Credit Name	Credits available	Credits breakdown	Credits status	Overall Weight	Overview of requirements	Location of information	Action	Responsible Party	Risk	Stage
	LE 03: Mitigation Ecological Impact (MANDATORY - 1 credit for Very Good +Excellent)	2	2	2	2%	Minimise the impact of development on existing site ecology e.g. species change -9 to zero (1st credit) zero or positive (2nd credit)		Ecologist confirmed in writing that The site has a change in ecological value of 0.11, a positive change in species. The proposed post layout has set aside 75.90m2 of native and wildlife planting that will consist of further hedgerows, shrubs, bulbs and flowers. (Ecological report, Syntegra, March 2016). Architect to confirm the area of green wall and /or green wall within the current 2018 design.	Ecologist + Architect		Tender
	LE 04: Enhancing Site Ecology	2	At Stade 1 (Stade B), Ecologist appointed (site survey, advice, report (stage 2) a) 1st credit is required to score 2nd credit Prior to site clearance (with local BAP by Stage 1) At Stade 1 (Stade B), Ecologist appointed (site survey, advice, report (stage 2) a) 1st credit is required to score 2nd credit Ecologist to confirm the number of species change and recommendations	Client has appointed ecologist to review the updated 2018 design	Ecologist		by end of 1				
Land Use and Ecology	LE 05: Long Term Impact on Biodiversity	2	2	2	2%	Mandatory: prior to works on site: - UK/EU legislation - Syr landscape+mgt plan for building occupants (in lin with BS 42020, covering: - Protected features - Existing/new habitats - Reference to local biodiversity action plan (BAP)	PENDING - Credit 2 - additional measures; to be included in the Tender Pack requirements	Ecologist confirmed that 2 credits are possible assuming architect and contractor implement his recommendations and comply with the relevant mandatory / additional requirements.	Architect + Ecologist +PM		by end of 1
Total L	and & Ecology Credits			8	8%						
	EN 376.2000 (paris 2 airu 3)	All systems (with electric compressors) must comply with the requirements of BS EN 378:2008 (parts 2 and 3)	M+E Specifications	M+E to include within M & E specifications	M+E		Tender				
	Pol 01: Impact of Refrigerants	3	3	1	0.77%	11-3 credits) - air-con/refrigeration systems GWP ≤10 achieves 2 credits. OR - (possible 2 CREDITS) Credit also considers the "Direct Effect Life Cycle (DELC) carbon dioxide equivalent": a measure of the effect on global warming arising from emissions of refrigerant (in the case of this BREEAM assessment issue) from the equipment to the atmosphere over its lifetime (units: kgCO2eq.). The calculation involves estimating the total refrigerant release over the period of operation and subsequent conversion to an equivalent mass of CO2. (Alternative way to score 1 or 2 credits, depending on DELC CO2 equivalent found from using the Pol 1 BREEAM calculation tool). 4th credit - Leak detection system and automatic shutdown would achieve 1 credit		M+E to review at Detailed Design, notably for air conditioning likely required within the gym and recording studio.	M+E		
	Pol 02: NO _x Emissions	3	3	3	2.31%	NOx for space heating + hot water	M+E specifications	M+E to include within M & E specifications the requirement for heating and hot water to have combined NOx < 40mg/kWh	M+E		
			2	2		(2 credits) FRA = low	Flood report	Flood risk consultant to confirm no increase in impermeable area (compared to existing site) and that risk of flooding from all sources is LOW.	Flood risk Eng.		
Pollution	Pol 03: Surface Water Run-off	5	1	1	3.08%	- drainage consultant appointed (1) runoff RATE < pre devept site + climate change for 1 and 100 year return events (2) relevant agreements are in place for any SUDS (ownership, long term use, and maintenance)	Drainage report	Drainage Eng. planning stage FRA (Conisbee, 31st Oct 2016) states that runoff RATE (including for climate change) is less than the existing site for 1 and 100 year events. (Please refer to the Design Notes on Drawing C100, Rev P2 on page 63. These list the proposed greenfield rates compared to the existing rate of 39.2/s on page 17) Drainage Eng. to outline all SUDS measures and maintenance required. Client to confirm in writing the required maintenance will be undertaken.	Drainage Eng. + Client	M+E M+E Flood risk Eng.	
			1	1		c. (1) a) Attenuation runoff VOLUME < pre devpt site b) no flood risk to building if local drainage failure	Drainage report	Drainage Eng. Planning stage FRA (Conisbee, 31st Oct 2016) confirmed runoff VOLUME (including for climate change) is less than the existing site for 1 and 100 year events. Drainage Eng. to confirm in writing that no risk to building in the case of drainage failure	Drainage Eng.		
			1	+1		d. (1) a) no discharge for 5mm of rain b) SUDS treatment of water e.g. permeable paving + oil filters	TARGET drainage report	Drainage Eng. to confirm that the first 5mm of <u>all</u> rain fall within the site boundary will be prevented from leaving the site e.g. permeable paving, rainwater harvesting etc. AND pollution control measures that will be installed.	Drainage Eng.		
	Pol 04: Reduction of Night-time Light Pollution	1	1	1	0.77%	- designed inline with ILE guidance (uplighting angles) - off 2300-0700 except safety/security lighting		M+E to include with M & E specifications	M+E		
	Pol 05: Noise Attenuation	1	1	1	0.77%	- noise emitted to sensitive areas within 800m - noise impact assessment in compliance with BS 7445 - no greater than +5dB during the day (07:00 to 23:00) and +3dB at night (23:00 to 07:00) compared to the background noise level.	Acoustician report	Acoustician to confirm compliance by email or report, notably for the sports hall.	Acoustician		
	Total Pollution Credits			10	7.70%						