31770 Heathrow Flightpath Industrial units

BREEAM 2018 NC BREEAM Tracker - Shell and Core

08th July 2022
By - MB
Checked - AW

Notes:
70% = Excellent, 85% = Outstanding

[M] Minimum standard for Excellent
Credit not available/ not targeted

Shell and Core		
Base	Extra	Achieved
73.6%	76.5%	16.7%
Excellent	Excellent	None

Credit Ref	Credit Name	Max	Base	Extra	Achieved	Notes / Comments
Management Each Credit is worth 0.61%						
Man 01	Project Delivery Planning	1				RIBA Stage 2. Setting out roles and responsibilities for project delivery, and demonstration of how the design was influenced is required to award the credit.
	Stakeholder consultation [interested parties]	1	1			RIBA Stage 2. Consultation with relevant third-party stakeholders, Stage 4 confirmation of design updates.
	BREEAM AP - Design Stage	2	2		2	RIBA Stage 1 and 2. Appointment of a BREEAM AP to help set and achieve BREEAM targets during design stage.
Man 02	Life Cycle Costing	2				RIBA Stage 2. Elemental lifecycle costing study in accordance with PD 156865:2008.
	Elemental Level Life Cycle Costing	1				At RIBA Stage 4. Component level LCC study building on the elemental study.
	Capital Cost Reporting	1	1			Reporting the estimated capital cost of the building to the BRE.
Man 03	Environmental Management	1	1			Contractor that have an environmental management system (i.e. ISO14001)
	BREEAM AP - Construction Stage	1	1			Appointing a sustainability champion to coordinate BREEAM for the contractor through construction and handover stages.
	Responsible Construction Management **[M]**	2	2			A score of at least 35 must be achieved with a minimum of 11 points in each section under the CCS scheme.
	Energy and Water Monitoring	1	1			Monitoring of energy and water consumption during construction by the main contractor.
	Transportation of Materials & Waste	1	1			Monitoring of material and waste transport impacts during construction by the main contractor.
Man 04	Commissioning - Testing Schedule & Responsibilities **[M]**	1	1			Commissioning and testing schedule and responsibilities agreed.
	Commissioning - Design and Preparation	1	1			Commissioning building services in line with best practice will be required by a specialist.
	Building Fabric Commissioning	1	1			A Thermographic survey of the finished building envelope, and resulting remediation of air leakage or thermal bridging would be required.
	Building User Guide & Handover **[M]**	1	1			Provision of a building user guide and implementation of a training schedule for occupants at handover required.

Credit Ref	Credit Name	Max	Base	Extra	Achieved	Notes / Comments
Health & Well-being **Each Credit is worth 0.8%**						
Hea 01	Daylighting	1	1			Potential credit once the design is developed and a set of daylight calculations are undertaken.
	View Out	1	1			Office areas only.
	Internal & External Lighting	1	1			Best practice internal and external lighting levels and zoning to be provided.
Hea 02	Indoor Air Quality Plan	Pre-Req				Not targeted as Ventilation credit is likely unachievable.
	Ventilation	1				Not targeted.
Hea 04	Thermal Comfort	1	1			Requires a Thermal comfort report using dynamic simulation software.
	Future Thermal Comfort	1	1			
Hea 05	Acoustic Performance Standards	1	1			An acoustician needs to assess the scope of works against best practice criteria to determine impact on ambient noise levels.
Hea 06	Security of Site and Building	1				A qualified security specialist would have to review the design and produce a security needs assessment which may necessitate additional security measures and must be followed. **RIBA Stage 2**
Hea 07	Safe Access	1				Unachievable due to the site having one single access road.
	Outside Space	1	1			Credit requires an outside space providing building users with an external amenity area.
Energy **Each Credit is worth 0.74%**						
Ene 01	Reduction of Emissions - BRUKL **[M]**	9	5		5	An improvement over Building Regulations Part L would be required. If fewer than 4 credits are achieved, an Excellent can still be met if the 'Predicted Energy Consumption' credit is achieved.
	Predicted Energy Consumption **[M]**	4	4			RIBA Stage 4. A CIBSE TM54 predicted energy study would be required at both technical design and practical completion at additional cost. This is a new BREEAM 2018 requirement.
Ene 02	Sub-metering of End-use Categories **[M]**	1	1			Energy sub-metering with a user friendly monitoring system is proposed to assist users to manage their energy use.
	Sub-metering of High Loads and Tenancy Areas	1	1			Energy sub-metering to be specified in offices, operayional areas, ancillary areas e.g. canteen.
Ene 03	External Lighting	1	1			Average initial luminous efficacy of not less 70 lm/cW and automatic controls.
Ene 04	Passive Design Inc. Free Cooling	2	1			Passive design was undertaken during **RIBA Stage 2** to identify and implementation of passive design measures.
	LZC Technology Specification	1	1			LZC Study undertaken at **RIBA Stage 2.**
Ene 06	Energy Efficient Transportation Systems	2	2			Energy efficient lifts of the optimum quantity and size will be provided but could require a lift feasibility study.

Credit Ref	Credit Name	Max	Base	Extra	Achieved	Notes / Comments
Transport **Each Credit is worth 0.96%**						
Tra 01	Transport Assessment and Travel Plan	2	2			A travel plan will be required, with enhanced content to meet the new BREEAM 2018 required topics. **RIBA Stage 2**.
Tra 02	Sustainable Transport Measures	10	5	0		
	Accessible Index (AI) of 8.0	-				Not targeted.
	Accessible Index (AI) Increased (e.g. dedicated bus route)	-				More frequent services / dedicated staff bus.
	Public transport information	-	1			Usually a tablet in the building reception. We would need one in each building.
	Car charging points: 10% of total car park spaces – 1 point	-	1			Drawings and datasheets to confirm.
	Car sharing measures: 5% of total car park spaces	-	1			Client to have policy in place, car park spaces to be marked up.
	Cycle storage spaces	-	1			Number to be compliant with BREEAM.
	2no. cyclist facilities	-				Not targeted.
	Existing amenities	-	1			Outdoor gym next to portugese restaurant, plus community centre and existing green outdoor space.
	New amenities	-				Not targeted.
	Work with Local Authority, new cycle/pedestrian route	-				Not targeted.
Water **Each Credit is worth 0.78%**						
Wat 01	Water Consumption **[M]**	5	3			Low flow rates of water fittings shall be specified.
Wat 02	Water Monitoring **[M]**	1	1			Water meters need to be pulsed output.
Wat 03	Water Leak Detection & Prevention	2	2			An adjustable water leak detection system will be provided based on differential meter flow rates, and solenoid shut-off valves controlled with PIR sensors to each toilet area.
Wat 04	Water Efficient Equipment	1	1			Planting shall rely solely on precipitation with no mains fed irrigation.
Materials **Each Credit is worth 1.25%**						
Mat 01	Life Cycle Impacts	7	5		3	A comprehensive lifecycle analysis of the proposed materials at concept stage, and then again in more detail at Technical Design. 3 + 1 Exemplar credits were achieved at Concept Design.
Mat 02	Construction Products EPDs	1				EPDs are Environmental Performance Declarations products and not many construction products have them.
Mat 03	Sustainable Procurement Plan **[M]**	1	1		1	A sustainable procurement plan is to be put in place at **RIBA Stage 1.**
	Responsible Sourcing of Materials	3	1			One credit is typically achievable although it will require close control of the materials supply chain.
Mat 05	Designing for Durability and Resilience	1	1			The architect must undertake an appraisal of the durability measures required to protect the building, and the resilience of products to environmental factors such as solar radiation and moisture.
Mat 06	Material Efficiency	1	1			The design team must collaborate at each **RIBA Stage 1, 2, 3, 4, 5** to collate opportunities to reduce waste at each key stage of the project. There must also be a waste reduction requirement in the project brief.

Credit Ref	Credit Name	Max	Base	Extra	Achieved	Notes / Comments
Waste **Each Credit is worth 0.7%**						
Wst 01	Pre-demolition Audit	1				Not targeted.
	Construction Resource Efficiency	3	2			Credit based on levels of waste generated by the project. Outline estimate currently made based on the performance of similar buildings.
	Diversion of Resources from Landfill	1	1			Larger contractors typically will always meet the diversion from landfill requirements.
Wst 02	Recycled Aggregates	1				
Wst 03	Operational Waste **[M]**	1	1			The waste storage area shall be appropriately sized for the envisaged types and volumes of waste generation.
Wst 05	Adaptation to Climate Change	1	1			A building specific adaptation to climate change study would be required, setting out the expected climate change risks and how they will be avoided. **RIBA Stage 2**
Wst 06	Disassembly and Adaptability	2	2			Design team to review opportunities for maximising adaptability of the building's design for future different uses at **RIBA Stage 2**. A future guide to building managers about designing for future adaptation must be produced and handed over to the building operator.
Land Use & Ecology **Each Credit is worth 1.15%**						
LE 01	Previously Developed Land	1	1		1	At least 75% of the proposed development footprint is on an area of land which has previously been occupied.
	Contaminated Land	1		1		Credit can be awarded if contamination that is a risk to health is found and remediated.
LE 02	Understanding Risks and Opportunities	2	2		2	A suitably qualified ecologist must be appointed to provide BREEAM advice at **RIBA Stage 1.** The ecologist needs to do some extra work to report BREEAM 2018.
LE 03	Managing Negative Impacts	3	2		2	
LE 04	Change and Enhancement of Ecology	4	2			
LE 05	Long Term Impact on Biodiversity	2	2			
Pollution **Each Credit is worth 0.75%**						
Pol 01	Impact of Refrigerants	3	1	1		One credit might be possible if each system if small systems are specified and have a DELC of ≤1000kgCO_2-eq/kW cooling and heating capacity.
Pol 02	Local Air Quality	2	2			If the building will have electrical based heating, the credit can be targeted comfortably. If it is gas heating the credit is unlikely to be achieved as the gas boilers cannot produce less than 24 mg/kWh NOx which is extremely low.
Pol 03	Flood Risk	2	2			Low flood risk. Potential to have flood barriers or other protection measure as per BS 8533.
	Surface Water Run-Off	2	1			Peak rate of run-off with a 30% improvement Post-development run-off volume no greater than prior site development.
	Minimising Water Course Pollution	1				Difficult to achieve.
Pol 04	Reduction of Night-time Light Pollution	1	1			The M&E design to ensure minimal external light spillage from the proposed lighting.
Pol 05	Noise Attenuation	1	1			BREEAM scheme requires noise to be 5dB lower than the background. Acoustician to carry out a noise survey and guidance report.

Credit Ref	Credit Name	Max	Base	Extra	Achieved	Notes / Comments
Exemplary Credits Each Credit is worth 1%						
Man 03	Responsible Construction Practices	1	1			A score of at least 39 must be achieved with a minimum of 13 points in each section under the CCS scheme.
Hea 01	Visual Comfort	2		1		Lighting in each zone needs to be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations.
Hea 02	Indoor Air Quality	1				Credit not targeted.
Hea06	Security	1				
Ene 01	Reduction of CO_2 Emissions	3				Very difficult. Firstly 9/9 ENE01 credits, then 2 credits = offset 50% of unregulated enegy use using on site renewables. Widespread PV is expected, but the 0.9 EPRnc may be the limiting factor.
Ene 01	Post Occupancy	2				Credit not targeted.
Wat 01	Water Consumption	1				Credit not targeted.
Mat 01	Life Cycle Impacts	3	2		1	Additional lifecycle impacts assessment relating to building services, lifecycle costing integration, and third party verification at additional cost.
Mat 03	Responsible Sourcing of Materials	1				Credit not targeted.
Wst 01	Construction Site Waste Management	2				Credits not targeted.
Wst 02	Recycled Aggregates	1				Credit not targeted.
Wst 05	Adaption to Climate Change	1				Credit not targeted.
LE 02	Ecological Risks and Opportunities	1				Credit not targeted.