
Manchester Metropolitan University
Library Transformation Project

Sustainability Statement (DRAFT)

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Contents

1. Introduction.....	1
1.1 Project Description.....	1
1.2 Sustainability and Manchester Metropolitan University.....	1
1.3 Sustainability and the Library Transformation Project.....	3
2. Environmental Sustainability Tracker.....	3
3. BREEAM	17
3.1 Minimum Requirements	18
3.2 Route to Achieving BREEAM Excellent	18
4. WELL Building Standard.....	21
4.1 Scoring and Strategy for Achieving WELL Gold	21
5. Conclusion.....	23

Appendix 1: Environmental Sustainability Tracker

Appendix 2: BREEAM Tracker

Appendix 3: WELL Building Standard Checklist

1. Introduction

This sustainability statement has been prepared on behalf of Manchester Metropolitan University in support of the development proposals and planning application for the proposed Library Transformation Project (LTP). Supporting the environmental standards statement (ESS), provided separately and by others, this report summarises the university's credentials as a sustainable developer, and sets out the sustainability measures proposed for the development.

1.1 Project Description

The project will comprise the redevelopment of the existing Manchester Metropolitan University (MMU) All Saints Library. Situated on All Saints Park, Manchester (postcode M15 6BH), the library is the university's main library building, serving the university's 40,000 students and 4,000 staff. As well as providing resources and study spaces, the library houses a number of special collections, predominately relating to fine and applied art.

The facility is to benefit from the £150m Library Transformation Project which forms part of wider modernisation plans for MMU. The substantial programme features a combination of refurbishment, demolition and new build in order to increase capacity, renew facilities, enhance the general user experience and achieve flagship status. The new build element of the scheme will be delivered as Phase 1, and the refurbishment as Phase 2.

1.2 Sustainability and Manchester Metropolitan University

As evidenced by placing top 3 in the People & Planet League table since 2013 and named in the global top 70 of the Times Higher Education's Impact Rankings, sustainability is core to the strategic and day to day operations of Manchester Metropolitan University.

To continually improve performance and to respond to the climate emergency, the university have set ambition targets for meaningful change, charting a path towards global leadership in sustainable development in both their Leadership in Sustainability (2022 – 2026) strategy and their sustainability policy. The Leadership in Sustainability strategy sets the direction and focus of their strategy for leadership in sustainability, identifying the following goals to be achieved by 2030:

- **Leadership in sustainability:** Throughout the decade, they will be thought leaders in climate change and sustainable development through ensuring sustainability underpins all they do, increasing awareness, engagement and raising expectations, and maintaining and continually improving their sustainability performance.
- **Academic innovation and impact:** Throughout the decade, they have committed to equipping their students and colleagues with the knowledge and skills to shape a more sustainable future and deliver high-quality research and innovation to contribute to the world's sustainability agenda. This will be achieved through embedding Education for Sustainable Development and climate change education, high quality responsible research, and winning significant research income.
- **Sustainable campus and practices:** They will embed sustainability into their campus, practices and processes, achieving their carbon targets, maximising social value, and futureproofing the organisation. The university are implementing their carbon management plan in order to stay on track to reduce their carbon emissions to net zero before 2038. They are also embedding sustainability and net zero into new and refurbishment building projects, supporting and enabling sustainable behaviours, and identifying their climate change business risks.
- **Engagement and partnerships:** Throughout the decade, sustainability will add value to local, national and international engagement activities, achieved through supporting the city-region on its journey to becoming net zero carbon by 2038.

The strategy also sets out key performance indicators (KPIs) for each of the aforementioned strategic goals. These are summarised in Figure 1.

Strategic goal	KPI	Definition	2026 Target
Leadership in sustainability	Sustainability recognition	Membership of United Academic Impact (UNAI)	Maintain
		People and Planet University League	Maintain top 3 position
	Accreditations	ISO 14001 certification	Maintain
		Responsible Futures accreditation	Maintain
Academic innovation and impact	Education for Sustainable Development	Students satisfied that they have opportunities to gain sustainable development skills and knowledge	90%
		Courses that include Education for Sustainable Development and climate change education	100%
	Research contribution to the Sustainable Development Goals	Membership of United Academic Impact (UNAI)	Maintain
Sustainable campus and practices	Carbon reduction	Scope 1 and 2 carbon emissions	44% reduction (6,400 tonnes CO ₂ e) and zero carbon before 2038 ¹
		Scope 3 carbon emissions	On track to net zero before 2038 ²
	Sustainable buildings	BREEAM rating level for new buildings	Excellent with aspiration of Outstanding on completion
		SKA rating level for major refurbishment projects	Silver with aspiration of Gold on completion
		Sustainability tracker targets achieved for new buildings and major refurbishment projects	80%
	Biodiversity	Area of amenity grass on campus converted into biodiverse habitat	100m ² annually
	Food	Sustainable food policy targets	80%
	Travel	Business travel policy compliance	Develop and maintain
	Waste	Reuse and recycling rate	60%
	Water	Reduction in water consumption per m ²	10%
	Procurement	Tendered projects over £30k with environmental sustainability and social value as key contract criterion	100%
		Tier 1 supply chain partners compliant with Modern Slavery Act (where applicable) and identifying risks for modern slavery in their own supply chains	100% by 2023, onwards to 2026
	Ethical investment	Ethical Investment Policy compliance	Maintain
	Climate change adaptation and resilience	Climate change business risks	Identify risks
Engagement and partnerships	Partnerships for sustainable development	Membership of United Academic Impact (UNAI)	Maintain
	Community involvement	Sustainability projects co-created with local community	10 projects

Figure 1: MMU 2030 strategic goals, KPIs and 2026 targets¹

¹ Source: Enabling Strategy: leadership in sustainability 2022 – 2026, Manchester Metropolitan University

1.3 Sustainability and the Library Transformation Project

As required by the Leadership in Sustainability Strategy, the development shall:

- Achieve BREEAM Excellent*
- Achieve at least 80% of the available targets within the Environmental Sustainability (ES Tracker)

*Although the development is part new build and part refurbishment, to reflect the depth of intervention with regards to improving the energy efficiency and sustainable performance of the refurbished spaces, for which the sustainability strategy typically requires SKA Silver to be met, the project team and University have agreed to deliver both new build and refurbished areas against the more stringent BREEAM New Construction 2018 scheme (as opposed to delivering the new build against BREEAM and refurbishment against the less stringent SKA scheme). This was deemed the most appropriate course of action due to the refurbished spaces being delivered to new build standards and performance.

In addition to this, and to reflect the university's commitment to supporting staff and students with regards to their mental and physical health and wellbeing, the development is also seeking WELL Building Standard Gold accreditation.

To support the delivery of the sustainability and wellbeing strategies for the project, the university appointed BDP at RIBA Stage 1 to fulfil the roles of BREEAM Assessor and Accredited Professional (AP), WELL AP and Environmental Sustainability Advisor (ESA) to manage the delivery of the targets and tracker document. BDP have been, and will continue, to work closely with the project team throughout all stages of the project to ensure the relevant targets are embedded within the design and delivered in the final build.

2. Environmental Sustainability Tracker

The environmental sustainability (ES) tracker sets out 81 bespoke sustainability targets under the following headings:

- Climate action:
 - Energy and emissions
 - Climate change adaptation and resilience
 - Travel
- Wider impact:
 - Community
 - Living lab showcase
 - Biodiversity
- Resources:
 - Building materials
 - Water consumption and drainage
 - Waste
- Health and wellbeing:
 - Mind
 - Nourishment
 - Movement
 - Light
 - Health
 - Acoustics
 - Thermal comfort
 - Healthy materials
 - Air
- Project management and ratings

At least 80% of the available targets must be met. The targets are summarised in Tables 1 – 5.

To ensure the targets are embedded within the design from project inception to completion, the tracker tool contains an action plan, requiring outputs and actions at each stage of the design. For further details, please refer to the ES tracker document appended to this report. It should be noted, however, that the ES tracker is being piloted on the LTP and, as such, may be subject to revisions on future projects. Furthermore, some of the original targets were deemed non-applicable to the project and have been removed, however the numbering remains the same. As such, in some instances the numbering of targets is not in succession.

Table 1: Sustainability Targets (Climate Action)

Category: Climate Action	
Energy and Emissions	
Target reference and title	Requirements
E-01 Route to Zero Carbon	Define zero carbon for the project. The definition can be no less onerous than the UKGBC definition. Compare the carbon modelling carried out with the University's requirement to achieve 44% reduction in scope 1 and 2 carbon emissions from 2018/19 baseline and zero carbon by 2038 across the campus by 2025/26 and net zero carbon for scope 3 by 2038. Provide commentary on how the development will assist the University in achieving those aims. As well as sustainability features, include narrative about any limitations prohibiting the building being zero carbon.
E-02 Route to Zero Carbon 2021 - Scope 1	Target zero carbon for Scope 1 by excluding fossil fuels and reducing operational carbon as much as possible. Calculate the residual operational energy, including end user energy for the project. This will make projects zero carbon ready. Calculate and offset fugitive emissions from refrigerants at: - A1 to A3 - Product stage - B1 - Equivalent carbon emissions from refrigerant in use (calculated at 4% system volume leakage per year x GWP) - C1 - Equivalent carbon emissions from refrigerant at end of life
E-03 Refrigerants	Minimise global warming potential of refrigerants: 1) Minimise refrigerant volume. No refrigerants running in the building, limit refrigerant use to within the heat pumps and use water for circulating; 2) Lean design of heat pumps and chillers to optimise system size. Apply diversity from advanced energy modelling and NABERS principals. 3) Use "very low" GWP <10 GWP refrigerants such as R290 (propane) and R1234ze or natural refrigerants, e.g. carbon dioxide from the outset. 4) Consider alarms or pumped drain down of refrigerant if a leak is detected. For heating: Design to incorporate very low GWP (currently defined as <10 GWP) For hot water:

	- For large volumes: CO2 heat pump or 2 stage heat pump connected to the heating system (e.g. halls of residence) - For low usage/intermittent use/remote locations: Use direct electric (e.g. handwashing for WCs)
E-04 Plan to meet Operational Carbon with Renewables	Only once operational carbon has been reduced as far as possible, maximise the provision of on-site renewables: 1) Consider renewables right from the outset in terms of architectural design and orientation. 2) Provide a whole life cost of the renewable element, from the earliest stage (as appropriate), to understand the upfront costs vs long term cost and carbon savings. 3) Estimate the residual annual operational carbon and state the size of offsite renewables which would be required to balance the energy consumption. 4) Ensure renewables are included in the cost plan.
E-05 Route to Zero Carbon 2021 - Scope 2	Target zero carbon for scope 2 emissions, heading towards a 2025 hard deadline for completed projects, by the following 3 steps: 1) Minimise electricity demand through application of energy hierarchy. 2) Maximise on- or near-site renewables directly connected, export minimised. 3) Whole life carbon calcs should take into account grid decarbonisation. 4) Energy purchase is dealt with centrally by the University and will be Certified 'high-quality' zero-carbon electricity (e.g. 15 year minimum PPA, REGO-retired zero carbon) - As a minimum Renewable Electricity to meet UKGBC description of renewable; renewably sourced with additionality and energy attribute (exclusivity of claim to renewables, with retired certificates). (Presumption: all electric systems using heat pump technologies, mentioned in a separate target).
E-06 Route to Zero Carbon 2021 - Fuel Selection	Renewable electricity is the only acceptable fuel source. All new systems both in new build and refurbishments to be electrically powered using heat pump technologies. All heating to be low temperature with larger emitters.
E-07 Route to Zero Carbon 2021 - Embodied Carbon	Measure embodied carbon and offset it at practical completion (to be paid for by project budget). Where possible, refurbish existing buildings rather than build new. Design to minimise embodied carbon. As a minimum, reduce embodied carbon to <600 kgCO₂/m² from now, with future uplift to <350kg CO₂/m² from 2028. This includes all A1-A5 embodied carbon for substructure, superstructure, façade, MEP, finishes and fit out.
E-08 Energy Reduction and Efficiency (Regulated – EPC A)	Achieve an EPC A rating.

E-09 Operational Energy Demand (DEC A)	Achieve DEC rating of A or above.
E-10 Fabric First Approach and Performance	Demonstrate how the energy hierarchy principles have been applied using a fabric first approach. Designers to implement the LETI fabric requirements for the most relevant building type, usually schools or offices, or give a reason as to why they are not valid for this project.
E-11 Energy Reduction and Efficiency (Regulated - EUI)	Reduce energy consumption to LETI or other justified benchmark appropriate to the building. Targets for other building types to be added when guidance becomes available. LETI new build targets for regulated energy are: - Schools 65kWh/m².yr - Offices 55kWh/m².yr - Small and Medium Housing 35kWh/m².yr
E-12 Energy Reduction and Efficiency (Regulated – Space Heating)	Reduce the space heating requirement to the LETI or other justified benchmark appropriate to the building. Targets for other building types to be added when guidance becomes available. LETI new build targets for space heating are 15kWh/m².yr for all building types.
E-13 Energy Reduction and Efficiency (Regulated – System Efficiency)	Achieve the system efficiency measures from LETI or other justified benchmark, appropriate to the building. Targets for other building types to be added when guidance becomes available e.g. for commercial buildings: - MVHR 90% (efficiency) - Heat pump SCOP ≥ 2.8 - Chiller SEER ≥ 5.5 - Central AHU SFP 1.5 - 1.2 W/l.s - A/C set points 20-26°C
E-14 Energy Reduction and Efficiency (Unregulated)	Apply LETI approach to end user energy and select efficient specialist equipment. These are the targets for offices: Power efficiency measures Tenant power density 8 (W/m² peak NIA) ICT loads 0.5 (W/m² peak NIA) Small power out of hours 2 (W/m² peak NIA)
E-15 Overall Performance (Regulated and Unregulated)	CIBSE TM54 assessment to be undertaken to estimate the total energy consumption and emissions. The design team shall demonstrate a detailed understanding of the unregulated energy loads and optimise opportunities to minimise these.
E-16 Building Energy Metering	Metering must be provided in line with CIBSE Guide TM39 (Building Energy Metering) and the University's energy metering specification. The metering must also align with the energy reporting from the TM54 so that future comparison can be made. Provide all heat pump installations with heat metering configured to provide real time COP measurements.

E-17 Orientation and Massing	Optimising the orientation and massing of a building in the early stages to minimise energy loads mainly associated with heating, cooling and lighting, and maximise the free energy from the sun and wind. The position and orientation of the buildings in relation to the wider site and surrounding developments to be considered. Considerations should include: the microclimate of the site and the impact of prevailing winds; topographical features and the potential interaction of existing and future buildings.
E-18 Low Energy Equipment and Controls	Continuing the application of the energy hierarchy, select efficient equipment, and equipment with controls which optimise efficiency and that are simple to operate. Demonstrate that low energy lighting, HVAC equipment and controls have been selected following an appraisal exercise (of different options). Demonstrate that the most sustainable and efficient options have been selected. Provide low energy LED lighting and appropriate zones and controls. External lighting to be ILE dark skies compliant.
E-19 On-Site Energy Generation	Demonstrate that at least 40% of SE/SW and flat roof space has been utilised for PV. This includes PV over rooftop plant, where necessary, unless it can be clearly demonstrated that this is not practically viable. Progress a coordinated design and ensure costs are included in the cost plan. Compare details with the Part L compliance model and report the percentage of all regulated energy demands met from on-site generation.
Climate Change Adaptation and Resilience	
Target reference and title	Requirements
R-01 Overheating	New build only: Impacts of future weather years must be examined (using year 2050 weather file as a minimum) and the building design must be adapted, where appropriate.
R-02 Rainfall Events	If the project is large enough to have roof or rainwater systems included within it, carry out a feasibility study to indicate the benefits to the local surroundings of a reduction in run off rates. Set a target to achieve at least 50% improvement in post development runoff rates compared to pre-development.
R-03 Flood Risk	Undertake a flood risk assessment using both current and future climate EA maps and assess whether a more detailed assessment is needed. Follow SuDS hierarchy. Highlight

	any benefits to the wider campus/community, and any potential co-benefits which could be derived from the flood resilience strategy. Where the site is at risk of flooding, mitigation measures should be recommended and installed, where appropriate, to increase resilience to flooding. The effect of a new building on water flow pathways and the flooding of other buildings should also be considered.
Travel	
Target reference and title	Requirements
T-01 Cycle Storage	• Ensure there is no net loss of cycle storage across campus. • Find opportunities to improve existing facilities, e.g. accessible basement storage, more secure indoor cycle parking. • Provide quality cycle storage spaces.
T-02 Cyclist Facilities	Provide the appropriate number of compliant cyclist facilities (in line with BREEAM NC 2018 criteria) for the building users. Suitable facilities include: - Showers - Changing facilities - Lockers - Drying spaces (ideally to include wire lockers) - Consider provision of battery charging for E-bikes
T-04 Hybrid Meetings	Ensure hybrid meeting facilities/technology provision in medium and large meeting rooms that can be booked by all building users.

Table 2: Sustainability Targets (Wider Impact)

Category: Wider Impact	
Community	
Target reference and title	Requirements
C-01 Fair Payment	In accordance with the Construction Supply Chain Payment Charter, the main contractor must pay their tier 1 supply chain within 30 calendar days from the end of the calendar month in which the work is carried out or products are supplied.
C-02 Social Value (student enrichment activities)	Student enrichment opportunities to be offered by the project team and supply chain to MMU students.
C-03 Social Value (contractor social value plan)	Contractor to define their social value plan in line with the local priorities.
C-04 Community Consultation on Access and Space	On projects that have elements of community use / public access, the local community must be consulted on appropriate building use. Bespoke targets to be set for each project depending on building type and the outcomes of the consultation process.
C-05 Modern Slavery	The main contractor should ensure that measures are in place to detect issues with modern slavery and provide toolbox talks to raise awareness around this issue.
C-06 Considerate Constructors	Achieve Considerate Constructors score of 40.
Living Lab Showcase	
Target reference and title	Requirements
Y-01 Living Lab Showcase	Ensure features that can showcase work related to academic disciplines are included within the design of the building and are linked to research opportunities. Signage to be provided to increase awareness.

Biodiversity	
Target reference and title	Requirements
B-01 Green Roofs and Walls	Carry out a feasibility study to identify potential areas for green roof, brown roof or living wall provision. Where opportunities exist, appropriate measures are to be incorporated into the design.
B-02 Wildlife Corridors	Appoint an ecologist and landscape architect to study and implement appropriate elements of wildlife corridors for the project. Include requirements for trees, shrubs, plants that attract pollinators, and grasscrete (or other permeable surfaces).
B-03 Living Hoardings	Reusable living hoardings or scaffolding to be used during the construction stage.
B-04 Site Preparation Impacts	The negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy. There is no overall loss of ecological value as a result of the development. Offsetting of negative impacts to be implemented on other parts of the campus (with any remaining in North West UK based and accredited schemes).
B-05 Bird and Bat Habitats	Carry out a feasibility study for measures to prevent birds from flying into the building and to identify potential inclusion of the following: • Wild pond • Standing water • Bird nest/box • Bat roost/box • Trees • Shrubs
B-06 Invertebrate Habitats	Provide an external space to incorporate a mixture of various types of habitats such as flowering plants, herbs, and shrubs, brown landscape (bare rock/gravels/sub-soils), deadwood/log piles, bug box, gravels, insect hotels, log piles etc. where practicable.
B-07 Naturalistic Design	Provide naturalistic design using native and naturalised species for landscaped areas that envelop the building.

Table 3: Sustainability Targets (Resources)

Category: Resources	
Building Materials	
Target reference and title	Requirements
X-02 Reused / Reclaimed Materials	Investigate opportunities to use reclaimed materials including a pre-demolition audit at the start of the project to identify any options.
X-03 Recycled Materials	Consider circular economy of materials. As a minimum, the design team must identify recycled content of key materials. 55% GGBS or 35% PFA in concrete to be achieved. Contractor to use recycled aggregate where possible.
X-04 Locally Sourced Materials	Monitor and report on the total value of the building's materials sourced from local suppliers and SME's. Report the percentage of the total value of the products sourced within Greater Manchester.
X-05 Sustainable Building Materials Selection Report	Report on opportunities to implement sustainable materials within the build. This includes, for example, reused materials, recycled materials, materials with recycled content, materials that are easily recyclable, bio-based materials, and locally sourced materials. Identify where sustainable materials are specified. Justify where sustainable materials have not been used.
X-06 Transport of Materials	In line with their own NZC strategies, all contractors / suppliers are to investigate and report on measures for reducing the emissions associated with transport of materials to site / transport of waste from site.
X-07 Paints	Where paints are specified or used, they should either be awarded the EU Eco label, be at least 90% recycled or be supplied with an Environmental Product Declaration.
Water Consumption and Drainage	
Target reference and title	Requirements
W-01 Unregulated Water Consumption	Process loads to be understood, quantified, and their efficiency optimised.
W-02 Non-Mains Water Supplies	Investigate the potential application of rainwater harvesting, greywater harvesting and/or borehole water. Rainwater to be used on all feasible roofs.

Waste	
Target reference and title	Requirements
Z-01 Offsite Construction	Explore off-site construction methods where feasible, and efficiencies can be gained. Where off-site construction can be used, the team should assess the impact on the design and incorporate the appropriate measures needed to implement it.
Z-02 Designing Out Waste	Produce a short matrix / report at the end of each stage detailing design considerations made to reduce waste.
Z-03 Operational Waste	An operational waste strategy is developed in line with the Operational Control Procedures and Waste and Recycling design guide. Specific waste containment relevant to the space utilised must be provided, including hazardous waste.
Z-04 Diversion of Waste from Landfill	Divert at least 85% of waste (by weight) from landfill as per the target in the MMU Waste and Recycling Design Guide.

Table 4: Sustainability Targets (Health and Wellbeing)

Category: Health and Wellbeing	
Mind	
Target reference and title	Requirements
M-01 Nature Based Design (Biophilia)	Provide a biophilia plan demonstrating how biophilic elements will be incorporated into occupied spaces.
M-02 Restorative Spaces	A designated indoor space shall be created and made available to all regular building occupants to support restorative practices. This may be a single space or several spaces that meet the following requirements: a) Designated exclusively for contemplation, relaxation and restoration (not to be used for work). b) A minimum of 7 m² plus 0.1 m² per regular building occupant is provided, up to a maximum of 74 m². Space may be broken up into multiple smaller rooms that total the required amount. Meet WELL STANDARD M07 Restorative Spaces criteria.

M-03 Hot Desking Spaces	To ensure suitable working spaces are available for visiting professionals, hot desking facilities must be provided in office spaces (and be accompanied with appropriate levels of storage space).
M-04 Standing Desks	For regular building users (i.e. staff), a minimum of 20% of desks should be sit-stand desks (as per space management guidelines). This applies to areas where hot-desking is in place or where desk use can be transient. Provide a suitable number of sit-stand desks in library spaces (for students).
M-05 Sense of Belonging	The building design shall contain features intended solely for human delight and the celebration of culture, spirit and place appropriate to the function of the building, developing a sense of belonging.
M-06 EDI	Meet the requirements set out in the EDI Design Guide covering requirements for wheelchair users, people with limited walking ability, partially sighted/sightless, hearing impaired. An assessment and potential incorporation of the following must also be considered: suitable breastfeeding/expressing spaces, changing places, prayer rooms, wider doorways, step free access, quiet spaces for neurodiversity. All EDI provisions are to be reviewed by the Inclusion Service to ensure that the building design is suitable.
M-07 Accessibility Consultant	Accessibility consultant to be appointed on all Capital Projects. Consultant is to make recommendations. Recommendations need to be implemented.
M-08 MMU Third Space and Smarter Working Pilots	Review and agree building design targets with MMU based on the outcomes of the Societal Space and Smarter Working Pilots.
Nourishment	
Target reference and title	Requirements
N-01 Eating Spaces	Review local arrangements for breakout eating spaces with Space Management team. (Note WELL Gold target: Breakout spaces should contain tables and chairs to accommodate at least 25% of occupants at any given time)
N-02 Food Preparation	Provide staff, including postgrads, with at least one dining space that contains the following supportive amenities that meet employee demand: - Cold storage - Countertop surface - Sink and amenities for dish and hand washing - Device for reheating food (e.g., microwave, toaster oven) - Dedicated cabinets or storage units available for employee use

	- Reusable eating utensils, including spoons, forks, knives and microwave-safe plates and cups
N-03 Drinking Water	Mains-fed drinking fountains or water bottle refilling stations should be provided throughout the building and in convenient locations.
Movement	
Target reference and title	Requirements
V-01 Interior Fitness Circulation	Use design features to encourage movement through the building and promote stairs as the default vertical transportation mode. At least 2 of the following should be provided for all staircases and hallways: artwork; light levels of at least 215lux when in use; views out or daylight via windows or skylights; natural design elements (e.g. plants or images of nature); and gamification. Implement point-of-decision signage that encourages stair use at each of the following locations: lifts; base of stairs/stairwells and re-entry points at each floor; and junctions in corridors that lead to either a stairwell open to regular building occupants or lifts.
V-02 Healthy Entrances	Main entrances are provided with entryway dirt/water gathering mechanism (such as mats) projecting 3m in the direction of travel. Doors designed to limit ingress of external air.
Light	
Target reference and title	Requirements
L-01 Healthy Sunlight Exposure and View out	Complete a daylight study. As a minimum, to ensure appropriate daylight and sunlight levels are achieved in regularly occupied spaces, 70% of all workstations should be within 7.5m of a transparent envelope glazing or atria. Visible light transmittance (VLT) of transparent glazing should be greater than 40%.
L-02 Visual Lighting Design	All indoor and outdoor spaces (including transition areas) comply with the illuminance thresholds specified in one of the following lighting reference guidelines: 1. IES Lighting Handbook 10th Edition. 2. EN 12464-1&2: 2011. 3. ISO 8995-1:2002(E) (CIE S 008/E:2001). 4. GB50034-2013. 5. CIBSE SLL Code for Lighting. The illuminance thresholds take into consideration the tasks and the age groups of the occupants.

L-03 Enhanced Lighting Colour Rendering Quality	All spaces: All luminaires (except decorative fixtures, emergency lights and other special-purpose lighting) meet at least one of the following colour rendering requirements. If tuneable white lighting is used, the requirements are met at 1,000K intervals from the lower end (with a minimum of 2,700K) to the higher end (with a maximum of 4,000k): a. CRI ≥ 90 b. CRI ≥ 80 with R9 ≥ 50 c. IES Rf ≥ 78, IES Rg ≥ 100, $-1\% \leq \text{IES Rcs}, h1 \leq 15\%$
L-04 Surface Design	The following light reflectance values are met: - Ceilings: 0.8 - Walls: 0.7 - Furniture: 0.5
Health	
Target reference and title	Requirements
H-01 Mould Control	UV lamps (254nm) are employed on the cooling coils and drain pans of mechanical systems within the new build element of the project.
Acoustics	
Target reference and title	Requirements
S-01 Acoustic Design	Meet Ska issue D29 "Acoustic Design" as mandatory. An acoustician who is a corporate member (or higher) of the Institute of Acoustics or whose company holds membership of the Association of Noise Consultants is part of the design team and the criteria from the current BB93, or FIS Guide to Office Acoustics 2015, are used as design targets.
Thermal Comfort	
Target reference and title	Requirements
T-01 Thermal Comfort	Thermal comfort should be modelled and reported on using the CIBSE TM52 methodology. Where appropriate, building systems should be zoned to allow different user groups to have control over their internal environment. Overheating and daylighting studies should be carried out in tandem to ensure an optimum balance between the size of glazing, natural light, natural ventilation and active cooling needs.

Healthy Materials	
Target reference and title	Requirements
X-01 Healthy Materials	Meet the requirements of WELL v2 X10, limiting the use of Volatile and Semi Volatile Organic Compounds in at least 20% of the products by cost, covering halogenated flame retardants, urea-formaldehyde and phthalates.
Air	
Target reference and title	Requirements
A-01 Indoor Air Quality Monitoring	Occupants must be able to make informed decisions about manual window opening. As such, any indoor air quality monitoring should provide feedback to the occupants about the mechanical vent speed /automatic natural vent openings / informative traffic light system. Ensure that this is linked to research activities and/or living labs.
A-02 Ventilation Effectiveness	Design for adequate ventilation rates. Where the ventilation rate is determined by the number of occupants, 12 l/s per person should be provided. Ventilate according to the CIBSE Guide B, CIBSE AM10 and Part F of the Building Regulations, any natural ventilation cooling requirements and all ventilation guidance relevant to the building type. Provide access to adequate natural ventilation and mixed mode ventilation where possible.
A-03 Mitigate Construction Pollution	If permanently installed ventilation system are operating during construction, filters must meet the following: - Media filters with a PM10 removal rating of at least 70% (e.g., MERV 8) are used to filter return air. - All filters are replaced prior to occupancy. The project implements the following moisture and dust management procedures: - Carpets, acoustical ceiling panels, fabric wall coverings, insulation, upholstery and furnishings and other absorptive materials are stored separately in a designated area protected from moisture damage. - All active areas of work are isolated from other spaces by sealed doorways or windows or through the use of temporary barriers. - Walk-off mats are used at entryways to reduce the transfer of dirt and pollutants. - Saws and similar tools use dust guards or collectors to capture generated dust.

A-04 Air Filtration and Purification	HVAC systems must incorporate suitable filtration to minimise external air pollution.
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Table 5: Sustainability Targets (Project Management and Ratings)

Category: Project Management and Ratings	
Target reference and title	Requirements
P-01 Revenue Costing	Whole life costing assessments considering capital, operational and revenue costs must inform all major design decisions and value engineering exercises. Whole life costing will be completed by the project team on key elements that are likely to have significant impact on energy use. Whole life costing is to be considered in all VE exercises using RICS Lifecycle Costing.
P-02 BREEAM Rating (New Build)	Achieve a BREEAM NC 2018 rating of 'Excellent' as a minimum for the new build element.
P-04 Soft Landings	Project team to develop and work in accordance with a Soft Landing plan specific to the project to ensure that the building users have the required knowledge and understanding so they can operate the building systems efficiently. Project programme must include Soft Landing actions and a Soft Landings Champion must be appointed on both client and project delivery team.
P-06 WELL	All Capital Projects to undertake an assessment of the Wellbeing standard to consider implementation within the design etc. Seek direction from Dir of EFCD, PEx and ESG etc.
P-08 Post Occupancy Evaluation (POE)	Outline the POE plan, including energy monitoring against the TM54. This should be planned during WS3 and programmed in within 18 months of completion.

3. BREEAM

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's foremost environmental assessment and rating system for buildings. BREEAM works to raise awareness amongst owners, occupiers, designers and operators of the benefits of taking a sustainability-led approach. It helps them to successfully and cost effectively adopt sustainable solutions and provides market recognition of their achievements. BREEAM aims to reduce the negative effects of construction and development on the environment.

In recognition of the design interventions to be applied to Phase 2 / the refurbished element of the scheme, it was agreed between the Client, design team and BDP BREEAM Assessor to register and assess both Phases 1 and 2 under the BREEAM New Construction 2018 (version 6) scheme, as one assessment, as opposed to having two separate assessments (Phase 1 being assessed as above, and Phase 2 under the less stringent SKA scheme).

Following completion of a pre-assessment exercise during the early stages of Concept Design (RIBA Stage 2), the design stage assessment has commenced. A number of workshops have been undertaken with the design and client team to review and agree the Stage 2 and 3 BREEAM strategy for achieving Excellent certification. The agreed strategy for achieving BREEAM Excellent is discussed further within this section of the report.

3.1 Minimum Requirements

A minimum score of at least 70% is required to achieve BREEAM Excellent. In addition to this, a number of mandatory / minimum requirements must be met (see Table 6). Where these requirements are not met, the targeted rating cannot be achieved.

Table 6: Minimum requirements for BREEAM Excellent

BREEAM issue	Minimum requirements for BREEAM Excellent (New Construction, BREEAM 2018)
Final score	70%
Man 03: Responsible construction practices	One credit (responsible construction management)
Man 04: Commissioning and handover	One credit (commissioning test schedule and responsibilities)
	Criterion 11 (provision of a building user guide)
Man 05: Aftercare	One credit (commissioning implementation)
Ene 01: Reduction of energy use and carbon emissions	Four credits
Ene 02: Energy monitoring	One credit (first energy sub-metering credit)
Wat 01: Water consumption	1 credit (a 12.5% improvement in potable water consumption)
Wat 02: Water monitoring	Criterion 1 only (provision of a BREEAM compliant water meter on the mains supply to the building)
Mat 03: Responsible sourcing of materials	Criterion 1 only (legal sourcing of timber and timber-based products)
Wst 03: Operational waste	One credit (provision of a compliant recyclable waste storage area)

At the time of writing, the development is on target to achieve all minimum requirements.

For specific criteria relating to the minimum standards, please refer to the BREEAM tracker appended to this report.

3.2 Route to Achieving BREEAM Excellent

A high level summary of the current agreed approach for achieving BREEAM Excellent is illustrated in Table 7 and Figure 2 (for full details please refer to the BREEAM tracker appended to this report). Based on the current strategy, a final score of 81.95% is anticipated, providing an 11.81% buffer beyond the minimum 70% required for BREEAM Excellent, thereby helping to secure the final rating should future changes to the design or new evidence come to light preventing any of the current targeted credits being awarded. It must be noted, however, that the target score will fluctuate throughout the design and construction stages as the design develops and further investigation into compliance with the various BREEAM issues is undertaken. This is standard practice on all BREEAM projects.

A further 26.27% worth of additional BREEAM points have been highlighted as “potentially achievable”. “Potentially achievable” points are those which require further investigation, may deliver limited value to the scheme, or have significant cost impacts. These points will be continually reviewed over the following stages.

Table 7: High level strategy for achieving BREEAM Excellent

Category	Weighting	Issue	Credits		
			Available	Targeted for Excellent	Additional / Potential Points
Management	0.52%	Man 01: Project brief and design	4	2	-
		Man 02: Life cycle cost and service life planning	4	4	-
		Man 03: Responsible construction practices	6	6	-
		Man 04: Commissioning and handover	4	4	-
		Man 05 Aftercare	3	3	-
Health and Wellbeing	0.78%	Hea 01: Visual comfort	5	2	3
		Hea 02: Indoor air quality	4	3	1
		Hea 04: Thermal comfort	3	3	-
		Hea 05: Acoustic performance	3	3	-
		Hea 06: Security	1	1	-
		Hea 07: Safe and Healthy Surroundings	2	1	1
Energy	0.69%	Ene 01: Reduction of energy use and carbon emissions	13	8	5
		Ene 02: Energy monitoring	2	2	-
		Ene 03: External lighting	1	1	-
		Ene 04: Low carbon design	3	2	1
		Ene 06: Energy efficient transportation systems	2	2	-
		Ene 08: Energy efficient equipment	2	-	2
Transport	0.83%	Tra 01: Transport Assessment and Travel Plan	2	-	2
		Tra 02: Sustainable Transport Measures	10	9	1
Water	0.78%	Wat 01: Water consumption	5	4	1
		Wat 02: Water monitoring	1	1	-
		Wat 03: Water leak detection	2	2	-
		Wat 04: Water efficient equipment	1	1	-
Materials	1.07%	Mat 01: Life Cycle Impacts	7	7	-
		Mat 02: Environmental impacts from construction products – environmental product declarations	1	1	-
		Mat 03: Responsible sourcing of materials	4	4	-
		Mat 05: Designing for durability and resilience	1	1	-
		Mat 06: Material efficiency	1	-	-
Waste	0.60%	Wst 01: Construction Waste Management	5	4	1
		Wst 02: Recycled aggregates	1	-	1
		Wst 03: Operational waste	1	1	-
		Wst 05: Adaptation to climate change	1	1	-
		Wst 06: Design for disassembly and adaptability	2	2	-

Category	Weighting	Issue	Credits		
			Available	Targeted for Excellent	Additional / Potential Points
Land Use & Ecology	1.00%	LE 01: Site Selection	2	1	1
		LE 02: Ecological risks and opportunities	2	2	-
		LE 03: Managing impacts on ecology	3	3	-
		LE 04: Ecological change and enhancement	4	4	-
		LE 05: Long term ecological management and maintenance	2	2	-
Pollution	0.67%	Pol 01: Impact of refrigerants	3	-	3
		Pol 02: Local air quality	2	2	-
		Pol 03: Flood and surface water management	5	2	3
		Pol 04: Reduction of night-time pollution	1	1	-
		Pol 05: Reduction of noise pollution	1	1	-
Innovation & exemplary level credits	1.00%	Innovation and exemplary level credits (a maximum of 10 may be awarded)	10	3	7
Route to 'Excellent':					81.95%
Additional 'potential' credits (weighted rating):					26.27%

For further details regarding individual credits, please refer to the BREEAM tracker appended to this report.

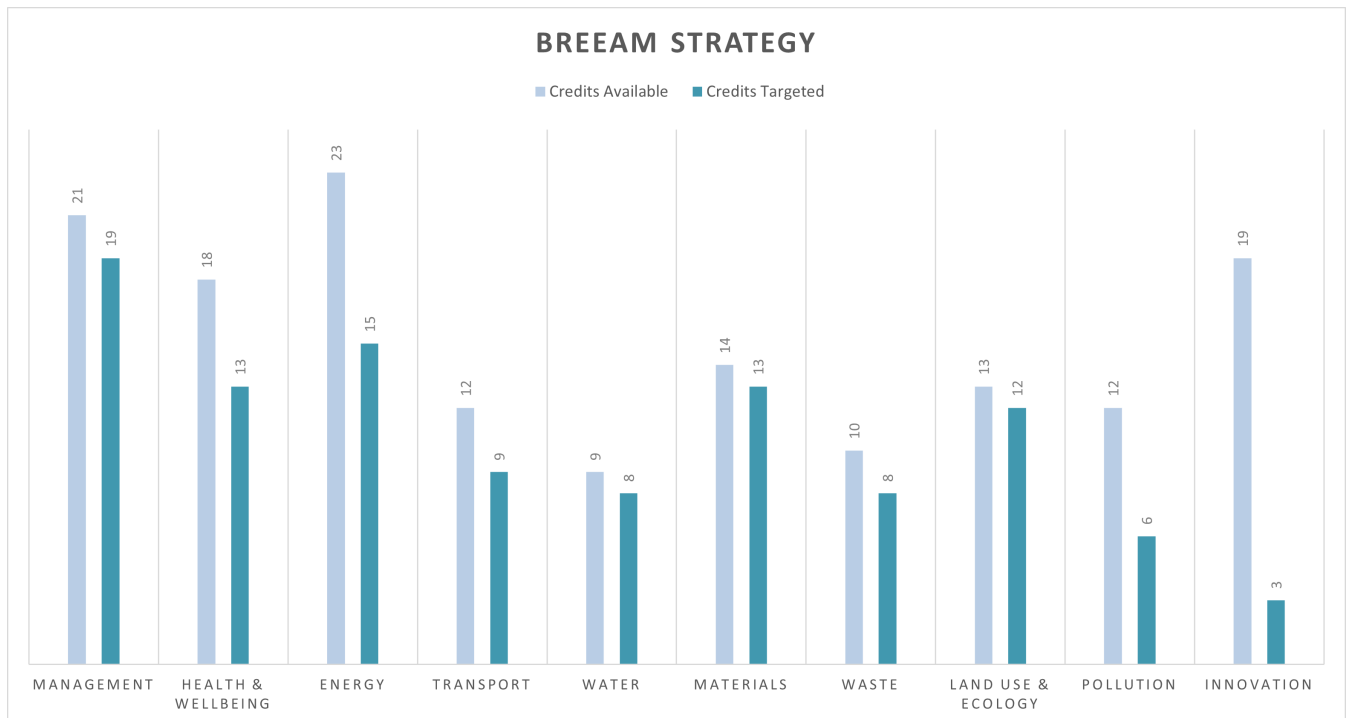


Figure 2: High level strategy for achieving BREEAM Excellent

4. WELL Building Standard

Whilst for many years the emphasis has been on designing buildings that are environmentally sustainable, a recent shift in focus now considers, in addition to sustainability, the impact of the built environment on human health and wellbeing. This has led to the development of schemes such as Fitwel and the WELL Building Standard which, in addition to certification, provide a framework for designers, contractors and operators to develop and operate buildings that promote human health and wellbeing.

Whilst a number of schemes exist, it is the WELL Building Standard that has emerged as the premier benchmark for measuring the impact of the built environment solely on human health and wellbeing. It marries best practice in design, construction, and building operation, and is supported by evidence-based medical and scientific research, with implementation of the scheme and healthy buildings shown to be positively correlated with productivity, stress release, and employee and student retention.

Manchester Metropolitan University are seeking WELL accreditation for the new build and refurbishment elements on the project, to complement its targeted BREEAM Excellent rating.

4.1 Scoring and Strategy for Achieving WELL Gold

The WELL Building Standard (version 2), under which the project, both new build and refurbished spaces, will be registered, aims to deliver healthy buildings through implementing the criteria of the ten concepts and categories of “wellness”:

- Air
- Water
- Nourishment
- Light
- Movement
- Thermal comfort
- Sound
- Materials
- Mind
- Community

The various credits (or WELL “issues”) within each category are split into preconditions and optimisations. Preconditions are mandatory requirements of which all must be met to achieve any level of WELL (i.e. Silver, Gold or Platinum). Optimisations are ‘voluntary’ credits, with the number of points achieved dictating the level of WELL achieved:



- WELL Silver: All pre-conditions and at least 50 points.
- WELL Gold: All pre-conditions and at least 60 points.
- WELL Platinum: All pre-conditions and at least 80 points.

Following a policy review and workshops with the design team, the development is on target for WELL Gold, targeting a score of 64. It is thought that the targeted score will most likely increase following further liaison with the University regarding wider policy issues around, for example, mental health support and staff benefits systems. It must be noted, however, that similar to the BREEAM assessment, the targeted score is likely to fluctuate throughout the design and construction stages as new information, opportunities or barriers come to light.

A high level summary of the scoring strategy is provided in Table 8 and Figure 3. It should be noted that, for each category of WELL, at least 2 points must be achieved, and no more than 12 can be awarded:

Table 8: High level strategy for achieving WELL Gold

Category	Number of points available	Maximum points that can be achieved	Number of points targeted
Air	18	12	6
Water	14	12	9
Nourishment	16	12	7
Light	18	12	7
Movement	21	12	7
Thermal Comfort	16	12	2
Sound	18	12	5
Materials	18	12	8
Mind	17	12	4
Community	41	12	3
Innovation	28	10	6
TOTAL:			64

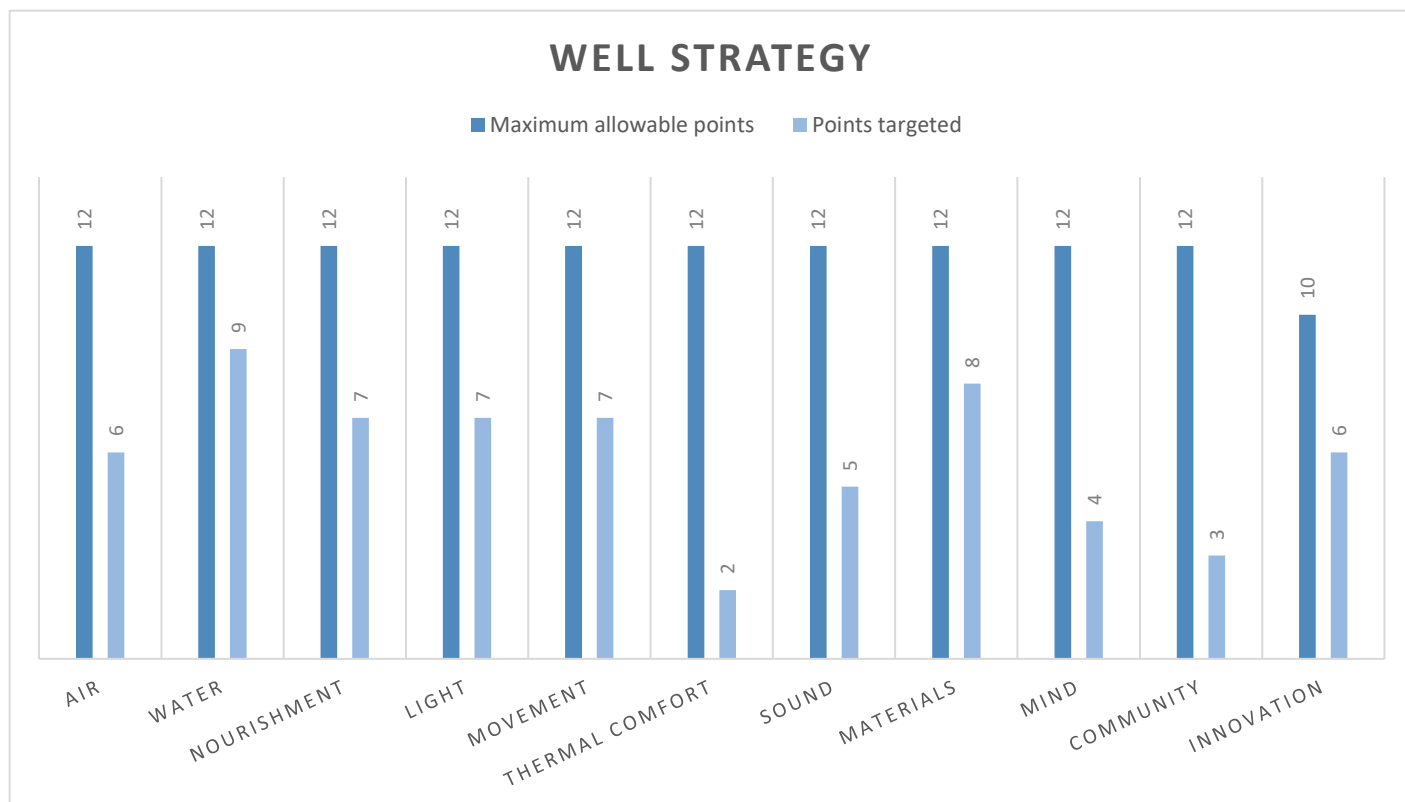


Figure 3: High level strategy for achieving WELL Gold

Whilst it may appear that the project may struggle in certain areas, for instance under the Community section for which there are 41 points available (capped at 12), it must be noted that many of the WELL criteria are very stringent and often relate to policy issues which are out of the control of the project team, for example, number of annual leave days. These issues will, however, be reviewed further as the project develops.

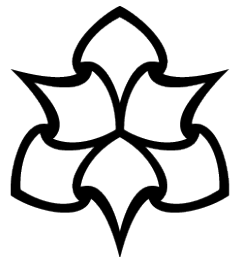
For further details of the targeted issues (including criteria) and potentially achievable issues (that are not currently targeted), please refer to Appendix 3 of this report and the WELL Building Standard website, www.wellcertified.com, for full compliance requirements and criteria.

5. Conclusion

This sustainability statement has been prepared on behalf of Manchester Metropolitan University in support of the development proposals and planning application for the proposed Library Transformation Project (LTP). Supporting the environmental standards statement (ESS), provided separately and by others, this report summarises the university's credentials as a sustainable developer, and sets out the sustainability measures proposed for the development.

In support of the university's Leadership in Sustainability (2022 – 2026) strategy, and their 2030 vision and continued leadership within the field of sustainable development, the LTP will achieve BREEAM Excellent, WELL Building Standard Gold, and at least 80% of the targets listed within the University's environmental sustainability (ES) tracker.

Appendix 1: Environmental Sustainability Tracker



**Manchester
Metropolitan
University**

Environmental Sustainability Tracker

PROJECT NAME:	Library Transformation
ESA:	Kat Ringland (BDP)
RIBA STAGE:	3
DATE OF ISSUE:	27/07/2023

Manchester Metropolitan University has made a strategic commitment towards environmental sustainability. To ensure the principals of environmental sustainability are embedded across all business and project operations, this tracker will be used for each new capital development project from inception to completion. It shall be operated by the client's project manager, and the duties set within it shall be contract requirements.

Alongside this tracker BREEAM assessments will be carried out for newbuild and SKA assessments will be carried out for refurbishments. The compulsory BREEAM credits will be tracked by the BREEAM assessor.

Name	Organisation	Role
Mike Howarth	Manchester Metropolitan University	Project Manager (Client)
Paul Hughes	AA Projects	Project Manager
Matt Boome	AA Projects	Project Manager
Patrick Drewello	Hawkins\Brown	Architect
Mei Ren	Buro Happold	M&E Lead
Andrew Tabern	Buro Happold	C&S Lead
Olly Creedy	Buro Happold	Acoustics Lead
Georgina Baines	Planit IE	Landscape Lead

Summary
On target to achieve 87.6% of applicable issues
Number of targets: 81
Targets achieved in current design: 45 (55.6%)
Targets yet to be confirmed*: 26 (32.1%)
Number of targets at risk: 8 (9.9%)
Number of targets not achieved currently: 2 (2.5%)

*It is either currently too early on in the design process to consider implementing the requirements of these targets, or further information is required from the design team. These issues are not at risk of not being achieved, however.

Issue ID	
Climate Action	
Energy and Emissions	
E-01	Route to Zero Carbon
E-02	Route to Zero Carbon 2021 - Scope 1
E-03	Refrigerants
E-04	Plan to meet Operational Carbon with Renewables
E-05	Route to Zero Carbon 2021 - Scope 2
E-06	Route to Zero Carbon 2021 - Fuel Selection
E-07	Route to Zero Carbon 2021 - Embodied Carbon
E-08	Energy Reduction and Efficiency (Regulated)
E-09	Operational Energy Demand
E-10	Fabric First Approach and Performance
E-11	Energy Reduction and Efficiency (Regulated)
E-12	Energy Reduction and Efficiency (Regulated)
E-13	Energy Reduction and Efficiency (Regulated)
E-14	Energy Reduction and Efficiency (Unregulated)
E-15	Overall Performance (Regulated and Unregulated)
E-16	Building Energy Metering
E-17	Orientation and Massing
E-18	Low Energy Equipment and Controls
E-19	On-Site Energy Generation
Climate Change Adaption & Resilience	
R-01	Overheating
R-02	Rainfall Events
R-03	Flood Risk
Travel	
T-01	Cycle Storage
T-02	Cyclist Facilities
T-04	Hybrid Meetings
Wider Impact	
Community	
C-01	Fair Payment
C-02	Social Value
C-03	Social Value
C-04	Community Consultation on Access and Space
C-05	Modern Slavery
C-06	Considerate Constructors
Living Lab Showcase	
Y-01	Living Lab Showcase
Biodiversity	
B-01	Green Roofs and Walls
B-02	Wildlife Corridors
B-03	Living Hoardings
B-04	Site Preparation Impacts
B-05	Bird and Bat Habitats
B-06	Invertebrate Habitats
B-07	Naturalistic Design
Resources	
Building Materials	
X-02	Reused / Reclaimed Materials
X-03	Recycled Materials
X-04	Locally Sourced Materials
X-05	Sustainable Building Materials Selection Report
X-06	Transport of Materials
X-07	Paints
Water Consumption & Drainage	
W-01	Unregulated Water Consumption
W-02	Non-Mains Water Supplies
Waste	
Z-01	Offsite Construction
Z-02	Designing Out Waste
Z-03	Operational Waste
Z-04	Diversion of Waste from Landfill

Issue ID	
Health and Wellbeing	
Mind	
M-01	Nature Based Design (Biophilia)
M-02	Restorative Spaces
M-03	Hot Desking Spaces
M-04	Standing Desks
M-05	Sense of Belonging
M-06	EDI
M-07	Accessibility Consultant
M-08	MMU Third Space and Smarter Working Pilots
Nourishment	
N-01	Eating Spaces
N-02	Food Preparation
N-03	Drinking Water
Movement	
V-01	Interior Fitness Circulation
V-02	Healthy Entrances
Light	
L-01	Healthy Sunlight Exposure and View out
L-02	Visual Lighting Design
L-03	Enhanced Lighting Colour Rendering Quality
L-04	Surface Design
Health	
H-01	Mould Control
Acoustics	
S-01	Acoustic Design
Thermal Comfort	
T-01	Thermal Comfort
Healthy Materials	
X-01	Healthy Materials
Air	
A-01	Indoor Air Quality Monitoring
A-02	Ventilation Effectiveness
A-03	Mitigate Construction Pollution
A-04	Air Filtration and Purification
Project Management and Ratings	
P-01	Revenue Costing
P-02	BREEAM Rating (New Build)
P-04	Soft Landings
P-06	WELL
P-08	Post Occupancy Evaluation (POE)

Topic	ID	Target	RIBA Stage 3 actions / outputs	RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
Climate Action								
Energy and Emissions								
Route to Zero Carbon	E-01	Define zero carbon for the project. The definition can be no less onerous than the UKGBC definition. Compare the carbon modelling carried out with the University's requirement to achieve 44% reduction in scope 1 and 2 carbon emissions from 2018/19 baseline and zero carbon by 2038 across the campus by 2025/26 and net zero carbon for scope 3 by 2038. Provide commentary on how the development will assist the University in achieving those aims. As well as sustainability features, include narrative about any limitations prohibiting the building being zero carbon.	Assessment and report (if updated from Stage 2)	Assessment and report			Hawkins/Brown University Buro Happold (MEP) BDP	The university's sustainability team have stated that the definition of NZC is to remain consistent with the UKGBC definition. However, it is noted that work in this area continues and the university's position may need to be amended subject to new information released by, for example, the Department for Energy Security.
Route to Zero Carbon 2021 - Scope 1	E-02	Target zero carbon for Scope 1 by excluding fossil fuels and reducing operational carbon as much as possible. Calculate the residual operational energy, including end user energy for the project. This will make projects zero carbon ready. Calculate and offset fugitive emissions from refrigerants at: - A1 to A3 - Product stage - B1 - Equivalent carbon emissions from refrigerant in use (calculated at 4% system volume leakage per year x GWP) - C1 - Equivalent carbon emissions from refrigerant at end of life	CIBSE TM54 report Assessment and report Calculate the residual operational energy figure including end user energy.	Update calculation, and feed into renewable energy balance calculation			Buro Happold (MEP)	
Refrigerants	E-03	Minimise global warming potential of refrigerants: 1) Minimise refrigerant volume. No refrigerants running in the building, limit refrigerant use to within the heat pumps and use water for circulating. 2) Lean design of heat pumps and chillers to optimise system size. Apply diversity from advanced energy modelling and NABERS principals. 3) Use "very low" GWP <10 GWP refrigerants such as R290 (propane) and R1234ze or natural refrigerants, e.g. carbon dioxide from the outset. 4) Consider alarms or pumped drain down of refrigerant if a leak is detected. For heating: Design to incorporate very low GWP (currently defined as <10 GWP) For hot water: - For large volumes: CO2 heat pump or 2 stage heat pump connected to the heating system (e.g. halls of residence) - For low usage/intermittent use/remote locations: Use direct electric (e.g. handwashing for WCs)	Design team to select plant and equipment with the lowest feasible GWP. Selection to be summarised in a report.			Report on final GWP insulants and refrigerants.	Buro Happold (MEP)	
Plan to meet Operational Carbon with Renewables	E-04	Only once operational carbon has been reduced as far as possible, maximise the provision of on-site renewables: 1) Consider renewables right from the outset in terms of architectural design and orientation. 2) Provide a whole life cost of the renewable element, from the earliest stage (as appropriate), to understand the upfront costs vs long term cost and carbon savings. 3) Estimate the residual annual operational carbon and state the size of offfite renewables which would be required to balance the energy consumption. 4) Ensure renewables are included in the cost plan.	CIBSE TM54 report Calculate the residual operational carbon figure including end user energy Estimate residual annual operational carbon and state the size of offfite renewables which would be required to balance the energy consumption	Describe how the energy requirements can be met by zero carbon means	Any Offsite renewables are dealt with centrally by the University		Buro Happold (MEP) University Cost Consultant	
Route to Zero Carbon 2021 - Scope 2	E-05	Target zero carbon for scope 2 emissions, heading towards a 2025 hard deadline for completed projects, by the following 3 steps: 1) Minimise electricity demand through application of energy hierarchy 2) Maximise on- or near-site renewables directly connected, export minimised 3) Whole life carbon calcs should take into account grid decarbonisation 4) Energy purchase is dealt with centrally by the University and will be Certified 'high-quality' zero-carbon electricity (e.g. 15 year minimum PPA, REGO-retired zero carbon) - As a minimum Renewable Electricity to meet UKGBC description of renewable; renewably sourced with additionality and energy attribute (exclusivity of claim to renewables, with retired certificates) (Presumption: all electric systems using heat pump technologies, mentioned in a separate target)			Energy purchase is dealt with centrally by the University		University Buro Happold (MEP)	
Route to Zero Carbon 2021 - Fuel Selection	E-06	Renewable electricity is the only acceptable fuel source. All new systems both in new build and refurbishments to be electrically powered using heat pump technologies. All heating to be low temperature with larger emitters.	No new natural gas in any refurbishments where any element of the heating equipment is being replaced. Select all-electric solution using heat pumps, low temperature with larger emitters (this should be demonstrated within the specification and schematics).				Buro Happold (MEP)	ASHP and PVs are specified.
Route to Zero Carbon 2021 - Embodied Carbon	E-07	Measure embodied carbon and offset it at practical completion (to be paid for by project budget). Where possible, refurbish existing buildings rather than build new. Design to minimise embodied carbon. As a minimum, reduce embodied carbon to <600 kgCO2/m2 from now, with future uplift to <350kgCO2e/m2 from 2028. This includes all A1-A5 embodied carbon for substructure, superstructure, façade, MEP, finishes and fill out.	Update calculations. Identify an appropriate residual embodied carbon offsetting scheme (if different from the previous stage) and include reasonable financial allowances in the cost plan.	Update calculation	Update calculation	Offset embodied carbon within the project budget Various routes available to discuss with the University	Hawkins/Brown Buro Happold (Structures) Buro Happold (MEP) University	
Energy Reduction and Efficiency (Regulated)	E-08	Achieve an EPC A rating	Modelling and confirmation of EPC rating	Modelling and confirmation of EPC rating	Modelling and confirmation of EPC rating		Buro Happold (MEP) Design team	
Operational Energy Demand	E-09	Achieve DEC rating of A or above	Modelling and confirmation of DEC rating using CIBSE TM54. Confirm why DEC A is not achievable (see comments).	Modelling and confirmation of DEC rating using TM54 or NABERS calculation	Modelling and confirmation of DEC rating using TM54 or NABERS calculation		Buro Happold (MEP) Design Team University Contractor	
Fabric First Approach and Performance	E-10	Demonstrate how the energy hierarchy principles have been applied using a fabric first approach. Designers to implement the LETI fabric requirements for the most relevant building type, usually schools or offices, or give a reason as to why they are not valid for this project.	Demonstrate how the energy hierarchy has been applied.		Air tightness testing - intermittent and final	Follow the energy hierarchy when designing new and refurbished buildings. Air tightness testing - intermittent and final	Design team Contractor University	
Energy Reduction and Efficiency (Regulated)	E-11	Reduce energy consumption to LETI or other justified benchmark appropriate to the building. Targets for other building types to be added when guidance becomes available. LETI newbuild targets for regulated energy are: - Schools 65kWh/m2.yr - Offices 55kWh/m2.yr - Small and Medium Housing 35kWh/m2.yr	Confirm that the target is achieved through (CIBSE TM54 modelling is required). Design team to confirm why the target may not be achievable (see comments).	Achieve target based on TM54 or NABERS calculation	Achieve target based on TM54 or NABERS calculation		Buro Happold (MEP) Design team Contractor University	

Topic	ID	Target	RIBA Stage 3 actions / outputs	RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
Energy Reduction and Efficiency (Regulated)	E-12	Reduce the space heating requirement to the LETI or other justified benchmark appropriate to the building. Targets for other building types to be added when guidance becomes available. LETI newbuild targets for space heating are 15kWh/m2.yr for all building types	Confirm that the target is achieved through (CIBSE TM54 modelling is required).	Achieve target based on TM54 or NABERS calculation	Achieve target based on TM54 or NABERS calculation		Buro Happold (MEP) Design team Contractor University	
Energy Reduction and Efficiency (Regulated)	E-13	Achieve the system efficiency measures from LETI or other justified benchmark, appropriate to the building. Targets for other building types to be added when guidance becomes available e.g. for commercial buildings: - MVHR 90% (efficiency) - Heat pump SCoP ≥ 2.8 - Chiller SEER ≥ 5.5 - Central AHU SFP 1.5 - 1.2 W/l.s - A/C set points 20-26oC		Demonstrate targets are met	Be vigilant about efficiencies during VE exercises or when alternatives are offered		Buro Happold (MEP) University	
Energy Reduction and Efficiency (Unregulated)	E-14	Apply LETI approach to end user energy, and select efficient specialist equipment. These are the targets for offices: Power efficiency measures Tenant power density 8 (W/m2 peak NIA) ICT loads 0.5 (W/m2 peak NIA) Small power out of hours 2 (W/m2 peak NIA)	Client to define equipment lists. Client to identify end user equipment and select most efficient practical in terms of energy and water consumption.		Client to purchase efficient equipment		University	
Overall Performance (Regulated and Unregulated)	E-15	CIBSE TM54 assessment to be undertaken to estimate the total energy consumption and emissions. The design team shall demonstrate a detailed understanding of the unregulated energy loads and optimise opportunities to minimise these.	Update the CIBSE TM54 model and provide updated results.	Update the CIBSE TM54 model and provide updated results.	Update TM54		Buro Happold (MEP)	
Building Energy Metering	E-16	Metering must be provided in line with CIBSE Guide TM39 (Building Energy Metering) and the University's energy metering specification. The metering must also align with the energy reporting from the TM54 so that future comparison can be made. Provide all heat pump installations with heat metering configured to provide real time COP measurements.		BMS Desops to include description of connection to University energy dashboard (refer to M&E design guide)	BMS Desops to include description of connection to University energy dashboard (refer to M&E design guide)		Buro Happold (MEP)	
Orientation and Massing	E-17	Optimising the orientation and massing of a building in the early stages to minimise energy loads mainly associated with heating, cooling and lighting, and maximise the free energy from the sun and wind. The position and orientation of the buildings in relation to the wider site and surrounding developments to be considered. Considerations should include: the microclimate of the site and the impact of prevailing winds; topographical features and the potential interaction of existing and future buildings.					Hawkins/Brown Façade Engineer Buro Happold (MEP)	
Low Energy Equipment and Controls	E-18	Continuing the application of the energy hierarchy, select efficient equipment, and equipment with controls which optimise efficiency and that are simple to operate. Demonstrate that low energy lighting, HVAC equipment and controls have been selected following an appraisal exercise (of different options). Demonstrate that the most sustainable and efficient options have been selected. Provide low energy LED lighting and appropriate zones and controls. External lighting to be iLE dark skies compliant.	Design to reflect these requirements.	Demonstrate targets are met.	Be vigilant about efficiencies during VE exercises or when alternatives are offered		Buro Happold (MEP)	
On-Site Energy Generation	E-19	Demonstrate that at least 40% of SE/SW and flat roof space has been utilised for PV. This includes PV over rooftop plant, where necessary, unless it can be clearly demonstrated that this is not practically viable. Progress a coordinated design and ensure costs are included in the cost plan. Compare details with the Part L compliance model and report the percentage of all regulated energy demands met from on-site generation.	Demonstrate that at least 40% of SE/SW and flat roof space has been utilised for PV. Consider / investigate any further feasible technologies.	Confirm any changes to Stage 3 solution and narrative.			Buro Happold (MEP) Hawkins/Brown QS	
Climate Change Adaptation and Resilience								
Overheating	R-01	New build only: Impacts of future weather years must be examined (using year 2050 weather file as a minimum) and the building design must be adapted, where appropriate.	Provide a climate resilience report at each stage which must also include: 1. All critical services and plant. 2. Predicted hours of future summertime overheating (at least 2050s climatic projections).	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Confirm any changes to Stage 4 strategy / thermal comfort report and strategy.		Buro Happold (MEP)	Overlaps with BREEAM Hea 04.
Rainfall Events	R-02	If the project is large enough to have roof or rainwater systems included within it, carry out a feasibility study to indicate the benefits to the local surroundings of a reduction in run off rates. Set a target to achieve at least 50% improvement in post development runoff rates compared to pre-development.	Design team to provide end of stage narrative / evidence to confirm how the Stage 1/2 report's recommendations will be incorporated into the project. Further investigate whether the 50% target can be achieved. Provide robust justification where it cannot be achieved.		Report on final run-off rate achieved.		Buro Happold (C&S)	
Flood Risk	R-03	Undertake a flood risk assessment using both current and future climate EA maps and assess whether a more detailed assessment is needed. Follow SuDS hierarchy. Highlight any benefits to the wider campus/community, and any potential co-benefits which could be derived from the flood resilience strategy. Where the site is at risk of flooding, mitigation measures should be recommended and installed, where appropriate, to increase resilience to flooding. The effect of a new building on water flow pathways and the flooding of other buildings should also be considered.	Design team to provide end of stage narrative / evidence to confirm how the Stage 1/2 report's recommendations will be incorporated into the project.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Confirm any changes to Stage 4 flood resilience strategy.		Buro Happold (C&S)	
Travel								
Cycle Storage	T-01	• Ensure there is no net loss of cycle storage across campus. • Find opportunities to improve existing facilities, e.g. accessible basement storage, more secure indoor cycle parking. • Provide quality cycle storage spaces.	Provide end of stage narrative / evidence to confirm how the targeted number of cycle storage spaces will be incorporated into the project.				Plant IE Hawkins/Brown	
Cyclist Facilities	T-02	Provide the appropriate number of compliant cyclist facilities (in line with BREEAM NC 2018 criteria) for the building users. Suitable facilities include: - Showers - Changing facilities - Lockers - Drying spaces (ideally to include wire lockers) - Consider provision of battery charging for E-bikes	Provide end of stage narrative / evidence to confirm how the Stage 1/2 report's conclusions will be incorporated into the project.				Hawkins/Brown Buro Happold (MEP)	
Hybrid Meetings	T-04	Ensure hybrid meeting facilities/technology provision in medium and large meeting rooms that can be booked by all building users.	Provide end of stage narrative / evidence to confirm how the Stage 1/2 report's conclusions on number of hybrid meeting spaces and technology will be incorporated into the project.				Buro Happold (MEP)	

Topic	ID	Target	RIBA Stage 3 actions / outputs	RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
Wider Impact								
Community								
Fair Payment	C-01	In accordance with the Construction Supply Chain Payment Charter, the main contractor must pay their tier 1 supply chain within 30 calendar days from the end of the calendar month in which the work is carried out or products are supplied.	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Targets to be included in contractor requirements.	Contractor to confirm whether this is achieved.		AA Projects Contractor	
Social Value	C-02	Student enrichment opportunities to be offered by the project team and supply chain to MMU students.	Design team to provide quarterly updates on the opportunities that have been offered to MMU students and the uptake of these opportunities.	Contractor and supply chain to identify student enrichment opportunities and confirm suitability with MMU, and contractor to make their offer of opportunities at tender	Project team to provide quarterly updates on the opportunities that have been offered to MMU students and the uptake of these opportunities.	Project team to confirm in a report that student enrichment has occurred throughout the duration of the project.	University Project Team Supply Chain	
Social Value	C-03	Contractor to define their social value plan in line with the local priorities.	Contractor to submit social value plan tailored to local priorities with tender information.	Contractor to review social value plan with MMU and define targets.	Contractor to report quarterly on progress towards social value targets.	Contractor to confirm in a report that social value targets have been achieved and conclude with any outcomes.	AA Projects Contractor	
Community Consultation on Access and Space	C-04	On projects that have elements of community use / public access, the local community must be consulted on appropriate building use. Bespoke targets to be set for each project depending on building type and the outcomes of the consultation process.	Provide end-of-stage meeting minutes and narrative / evidence to confirm how community access will be incorporated into the project. Provide a summary of key opportunities discussed and agreed as a result of the consultation exercise.		Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Report on the final agreed solutions. Provide commentary on any deviation from the Stage 4 (and / or Stage 5) decisions.	Planning Consultants HawkinsBrown University	
Modern Slavery	C-05	The main contractor should ensure that measures are in place to detect issues with modern slavery and provide toolbox talks to raise awareness around this issue.	MMU to develop the Modern Slavery contractor's requirements covering, as a minimum: • Main contractor has defined minimum standards relating to modern slavery and core processes • Terms and conditions include adherence to minimum standards and a duty to report any suspected cases of modern slavery to the University Estates Department/ Procurement • Main contractor has risk-assessed their supply chain for modern slavery and has monitoring mechanisms in place (higher risk = greater scrutiny) as well as the stage 5 required actions	MMU Modern Slavery contractor's requirements to be included in contractor requirements.	Contractor to report any suspected cases of modern slavery to the University Estates Department/ Procurement Contractor to confirm provide evidence of: oSupply chain risk-assessment of their supply chain for modern slavery and has monitoring mechanisms in place (higher risk = greater scrutiny) oRecruitment checks for duplicate bank account, address, next of kin/ emergency contact oRobust selection processes and periodic spot checks or auditing of records for any labour agencies used oRobust selection and monitoring of modern slavery processes for materials suppliers, including spot checks / audit in line with risk assessment oTraining for their own personnel including basic awareness and role-specific. oWhistleblowing channels widely accessible and publicised.		University Contractor	Evidence to include: •Main contractor has defined minimum standards relating to modern slavery and core processes •Terms and conditions include adherence to minimum standards and a duty to report any suspected cases of modern slavery to the University Estates Department/ Procurement •Main contractor has risk-assessed their supply chain for modern slavery and has monitoring mechanisms in place (higher risk = greater scrutiny) •Minimum standards include: oRecruitment checks for duplicate bank account, address, next of kin/ emergency contact oRobust selection processes and periodic spot checks or auditing of records for any labour agencies used oRobust selection and monitoring of modern slavery processes for materials suppliers, including spot checks / audit in line with risk assessment oTraining for their own personnel including basic awareness and role-specific. oWhistleblowing channels widely accessible and publicised.
Considerate Constructors	C-06	Achieve Considerate Constructors score of 40	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Targets to be included in contractor requirements.	Contractor to confirm whether this is achieved.		AA Projects Contractor	
Living Lab Showcase								
Living Lab Showcase	Y-01	Ensure features that can showcase work related to academic disciplines are included within the design of the building and are linked to research opportunities. Signage to be provided to increase awareness.	Stage 3 meeting minutes of stakeholder engagement sessions to be provided. Provide a summary of key opportunities.	Design team to discuss and consult with the University on Living Labs opportunities. Provide a summary of key opportunities. Provide Stage 4 meeting minutes and narrative / evidence to confirm how the living labs requirements will be incorporated into the project.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Report on the final agreed solutions, including signage. Provide commentary on any deviation from the Stage 4 (and / or Stage 5) decisions.	University HawkinsBrown	
Biodiversity								
Green Roofs and Walls	B-01	Carry out a feasibility study to identify potential areas for green roof, brown roof or living wall provision. Where opportunities exist, appropriate measures are to be incorporated into the design.	Provide end of stage narrative / evidence to confirm how any opportunities identified in the Stage 1 / 2 will be incorporated into the project. At least one of the identified opportunities must be incorporated.				HawkinsBrown Plant IE	
Wildlife Corridors	B-02	Appoint an ecologist and landscape architect to study and implement appropriate elements of wildlife corridors for the project. Include requirements for trees, shrubs, plants that attract pollinators, and grasscrete (or other permeable surfaces).	Provide end of stage narrative / evidence to confirm how any opportunities identified in the Stage 1 / 2 will be incorporated into the project. At least one of the identified opportunities must be incorporated.				Ecologist Plant IE	
Living Hoardings	B-03	Reusable living hoardings or scaffolding to be used during the construction stage.	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Targets to be included in contractor requirements. A significant proportion of hoardings in areas of high pedestrian traffic to be provided by re-usable living hoarding or scaffolding at construction stage.	Contractor to confirm whether this is achieved.		AA Projects	
Site Preparation Impacts	B-04	The negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy. There is no overall loss of ecological value as a result of the development. Offsetting of negative impacts to be implemented on other parts of the campus (with any remaining in North West UK based and accredited schemes).	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Targets to be included in contractor requirements. 100% of negative impacts mitigated.	Contractor to confirm whether this is achieved.		Ecologist Contractor	

Topic	ID	Target	RIBA Stage 3 actions / outputs	RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
Bird and Bat Habitats	B-05	Carry out a feasibility study for measures to prevent birds from flying into the building and to identify potential inclusion of the following: • Wild pond • Standing water • Bird nest/box • Bat roost/box • Trees • Shrubs	Provide end of stage narrative / evidence to confirm how the Stage 2 report's suggested measures on bird habitat protection will be incorporated into the project. At least one of the identified opportunities must be incorporated. Ecologist to carry out study that identifies measures to protect bird and bat habitats.				Ecologist Plantit IE	
Invertebrate Habitats	B-06	Provide an external space to incorporate a mixture of various types of habitats such as flowering plants, herbs, and shrubs, brown landscape (bare rock/gravels/sub-soils), deadwood/log piles, bug box, gravels, insect hotels, log piles etc. where practicable.	Provide end of stage narrative / evidence to confirm how the Stage 2 report's suggested measures on invertebrate habitat protection will be incorporated into the project. At least one of the identified opportunities must be incorporated.				Ecologist Plantit IE	
Naturalistic Design	B-07	Provide naturalistic design using native and naturalised species for landscaped areas that envelop the building.	Provide end of stage narrative / evidence to confirm how the naturalistic design outlined at Stage 2 will be incorporated into the project.				Plantit IE	
Resources								
Building Materials								
Reused / Reclaimed Materials	X-02	Investigate opportunities to use reclaimed materials including a pre-demolition audit at the start of the project to identify any options.	Carry out pre-demolition audit. Provide end of stage narrative / evidence to confirm how the Stage 1/2 report's conclusions will be incorporated into the project.			Report on final reclaimed material usage on the project.	Hawkins Brown Buro Happold (Structures) Contractor	
Recycled Materials	X-03	Consider circular economy of materials. As a minimum, the design team must identify recycled content of key materials. 55% GGBS or 35% PFA in concrete to be achieved. Contractor to use recycled aggregate where possible.			Contractor to outline the composition of the concrete used on site. NOTE: high demand of GGBS means that there are limitations in the industry.		Contractor	
Locally Sourced Materials	X-04	Monitor and report on the total value of the building's materials sourced from local suppliers and SME's. Report the percentage of the total value of the products sourced within Greater Manchester			Contractor to outline material acquisition plan and report on levels sourced from SMEs and local suppliers.	Contractor to report on final levels of materials sourced from SMEs and local suppliers. Report the percentage of the total value of the products sourced within Greater Manchester	Contractor	"Local" is defined as within Greater Manchester.
Sustainable Building Materials Selection Report	X-05	Report on opportunities to implement sustainable materials within the build. This includes, for example, reused materials, recycled materials, materials with recycled content, materials that are easily recyclable, bio-based materials, and locally sourced materials. Identify where sustainable materials are specified. Justify where sustainable materials have not been used.	Material selection reported at the end of each stage to ensure compliance.			Report on final material selection.	Hawkins Brown Façade Specialist Buro Happold (Structures)	
Transport of Materials	X-06	In line with their own NZC strategies, all contractors / suppliers are to investigate and report on measures for reducing the emissions associated with transport of materials to site / transport of waste from site.	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Targets to be included in contractor requirements.	Contractor to confirm whether this is achieved.		AA Projects	
Paints	X-07	Where paints are specified or used, they should either be awarded the EU Eco label, be at least 90% recycled or be supplied with an Environmental Product Declaration.	Paint selection reported at the end of each stage to ensure compliance.			Report on final paint selection.	Hawkins Brown	
Water Consumption and Drainage								
Unregulated Water Consumption	W-01	Process loads to be understood, quantified, and their efficiency optimised.	Design team to identify water intensive equipment through stakeholder engagement and explore alternative servicing requirements e.g. process chilled water.	Design team to report on servicing design for the equipment to minimise freshwater usage.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Confirm any changes to Stage 4 lab equipment servicing strategy.	Buro Happold (MEP) Plantit IE	
Non-Mains Water Supplies	W-02	Investigate the potential application of rainwater harvesting, greywater harvesting and/or borehole water. Rainwater to be used on all feasible roofs.	No further actions.		No further actions.	No further actions.	n/a	RWH and GWH are not appropriate for the development due to space limitations. Borehole water unlikely due to S&E requirements. Application was investigated, however and, as such, the target has been met.
Waste								
Offsite Construction	Z-01	Explore off-site construction methods where feasible, and efficiencies can be gained. Where off-site construction can be used, the team should assess the impact on the design and incorporate the appropriate measures needed to implement it.	Design team to provide a report identifying the potential for offsite construction possibilities. Confirm which options will be taken forward.	Design team to provide a report identifying the potential for any additional offsite construction possibilities identified at Stage 4 and on any progress from the Stage 3 options.	Contractor to construct according to off-site options identified at Stage 3/4.	Provide summary report of all offsite construction opportunities considered and subsequently specified within the development. Report to include manufacturer and distance travelled to site.	Buro Happold (MEP) Buro Happold (Structures) Hawkins Brown Contractor	
Designing Out Waste	Z-02	Produce a short matrix / report at the end of each stage detailing design considerations made to reduce waste.	Produce a short matrix / report detailing how waste has been designed out during RIBA Stage 3 in line with circular economy principles. Provide meeting minutes from 'designing out waste workshop'. Quantify savings in embodied carbon as a result of these actions, compared to Stage 2 design. Calculations to be undertaken using agreed software and methodology, as agreed with the University.	Produce a short matrix / report detailing how waste has been designed out during RIBA Stage 4 in line with circular economy principles. Provide meeting minutes from 'designing out waste workshop'. Quantify savings in embodied carbon as a result of these actions, compared to Stage 3 design. Calculations to be undertaken using agreed software and methodology, as agreed with the University.	Produce a short matrix / report detailing how waste has been designed out during RIBA Stage 5 in line with circular economy principles. Provide meeting minutes from 'designing out waste workshop'. Quantify savings in embodied carbon as a result of these actions, compared to Stage 4 design. Calculations to be undertaken using agreed software and methodology, as agreed with the University.	Provide final summary report of actions taken to design out waste. Quantify savings in embodied carbon as a result of these actions compared to the Stage 1/2 and Stage 5 design. Calculations to be undertaken using agreed software and methodology, as agreed with the University.	Hawkins Brown Buro Happold (MEP) Buro Happold (Structures)	The University have asked that the team use OneClick to provide a level of consistency across all projects.
Operational Waste	Z-03	An operational waste strategy is developed in line with the Operational Control Procedures and Waste and Recycling design guide. Specific waste containment relevant to the space utilised must be provided, including hazardous waste.	Design team to review the University's Operational Control Procedures, and Waste and Recycling design guide 'OCP waste recycling at MMU' and 'Waste and Recycling Design Guide' and identify in a report the key requirements to be implemented on the project. Design team to provide end of stage narrative / evidence to confirm how the Stage 1/2 report's recommendations will be incorporated into the project.			Report on the compliance of the constructed building with the University's Operational Control Procedures, and Waste and Recycling design guide.	Hawkins Brown	
Diversion of Waste from Landfill	Z-04	Divert at least 85% of waste (by weight) from landfill as per the target in the MMU Waste and Recycling Design Guide.	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Targets to be included in contractor requirements.	Contractor to confirm whether this is achieved.		AA Projects Contractor	

Topic	ID	Target	RIBA Stage 3 actions / outputs		RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
Health and Wellbeing									
Mind									
Nature Based Design (Biophilia)	M-01	Provide a biophilia plan demonstrating how biophilic elements will be incorporated into occupied spaces.	Design team to provide a biophilia plan / commentary highlighting opportunities for inclusion of natural features (e.g. materials, patterns, and internal planting).	Investigate and report on additional biophilic elements for inclusion in the project. Provide update on plans / narrative provided at Stage 3. Where applicable, requirements to form part of Stage 4 drawings and specification.	Investigate and report on additional biophilic elements for inclusion in the project. Provide update on plans / narrative provided at Stage 4.	Report summarising biophilic design elements incorporated into the project.	Hawkins Brown	Aligns with the WELL pre-condition M02.1 (Provide Connection to Nature).	
Restorative Spaces	M-02	A designated indoor space shall be created and made available to all regular building occupants to support restorative practices. This may be a single space or several spaces that meet the following requirements: a) Designated exclusively for contemplation, relaxation and restoration (not to be used for work). b) A minimum of 7 m² plus 0.1 m² per regular building occupant is provided, up to a maximum of 74 m². Space may be broken up into multiple smaller rooms that total the required amount. Meet WELL STANDARD M07 Restorative Spaces.	Design team to provide comment / narrative on opportunities to provide wellbeing spaces. Design team to liaise with university regarding requirements.				Hawkins Brown	NOT ACHIEVED AT STAGE 2	
Hot Desking Spaces	M-03	To ensure suitable working spaces are available for visiting professionals, hot desking facilities must be provided in office spaces (and be accompanied with appropriate levels of storage space).	Provide hot desking space and appropriate facilities.				Hawkins Brown University		
Standing Desks	M-04	For regular building users (i.e. staff), a minimum of 20% of desks should be sit-stand desks (as per space management guidelines). This applies to areas where hot-desking is in place or where desk use can be transient. Provide a suitable number of sit-stand desks in library spaces (for students).	FF&E costs of standing desks to be allowed for in tendering costs.		Minimum 20% desks to provide for standing working in areas where hot-desking is in place or where desk use can be transient		University Fit Out Contractor		
Sense of Belonging	M-05	The building design shall contain features intended solely for human delight and the celebration of culture, spirit and place appropriate to the function of the building, developing a sense of belonging.	Provide end of stage meeting minutes and narrative / evidence to confirm how the sense of belonging requirements will be incorporated into the project.		Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Report on the final agreed solutions. Provide commentary on any deviation from the Stage 4 (and / or Stage 5) decisions.	Hawkins Brown	Required for WELL certification.	
EDI	M-06	Meet the requirements set out in the EDI Design Guide covering requirements for wheelchair users, people with limited walking ability, partially sighted/sightless, hearing impaired. An assessment and potential incorporation of the following must also be considered: suitable breastfeeding/expressing spaces, changing places, prayer rooms, wider doorways, step free access, quiet spaces for neurodiversity. All EDI provisions are to be reviewed by the Inclusion Service to ensure that the building design is suitable.	Provide end of stage narrative / evidence to confirm that the EDI requirements from WS 1/2 report will be incorporated into the project. The Inclusion Service must sign-off on the report.			Report on the compliance of the constructed building with the EDI Design Guide and agreements with the Inclusion Service.	Hawkins Brown		
Accessibility Consultant	M-07	Accessibility consultant to be appointed on all Capital Projects. Consultant is to make recommendations. Recommendations need to be implemented.	Accessibility consultant to assess measures to improve accessibility of the building and provide summary of key recommendations. Provide end of stage narrative / evidence to confirm how the accessibility consultant's recommendations will be incorporated into the project.			Report on the compliance of the constructed building with the accessibility consultant's recommendations.	University Accessibility Consultant Hawkins Brown		
MMU Third Space and Smarter Working Pilots	M-08	Review and agree building design targets with MMU based on the outcomes of the Societal Space and Smarter Working Pilots.	Design team to review and discuss the scheme with the relevant stakeholders as part of the consultation process. Provide documentation identifying key requirements to be implemented on the project. MMU must sign-off on the report / documentation. Provide end of stage narrative / evidence to confirm that the pilot requirements from WS1/2 report will be incorporated into the project.			Report on the compliance of the constructed building with the outcomes of the pilot study.	Hawkins Brown		
Nourishment									
Eating Spaces	N-01	Review local arrangements for breakout eating spaces with Space Management team. (Note WELL Gold target: Breakout spaces should contain tables and chairs to accommodate at least 25% of occupants at any given time)	Design team to review building and surrounding buildings to identify if / where relevant spaces are required. Design team to confirm number of spaces required. Design team to confirm that there are no potential conflicts with providing the required number of spaces and the University's space management policy. Stage 3 drawings demonstrating compliance.	Stage 4 drawings demonstrating compliance.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Provide photographic evidence and final As Built drawings demonstrating compliance.	Hawkins Brown	Aligns with WELL issue N08 Mindful Eating - Dedicated Eating Space	
Food Preparation	N-02	Provide staff, including postgrads, with at least one dining space that contains the following supportive amenities that meet employee demand: - Cold storage - Countertop surface - Sink and amenities for dish and hand washing - Device for reheating food (e.g., microwave, toaster oven) - Dedicated cabinets or storage units available for employee use - Reusable eating utensils, including spoons, forks, knives and microwave-safe plates and cups	Confirmed and location shown on Architectural drawings				Hawkins Brown University	Aligns with WELL issue N10 Food Preparation	
Drinking Water	N-03	Mains-fed drinking fountains or water bottle refilling stations should be provided throughout the building and in convenient locations.	Numbers and locations of water dispensers to be confirmed on drawings and requirement reflected in specifications.	Numbers and locations of water dispensers to be confirmed on drawings and requirement reflected in specifications.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Provide photographic evidence and final drawings and / or specification demonstrating compliance.	Hawkins Brown	Aligns with WELL issue W06 Drinking Water Promotion. At least 1 dispenser per 30m walk distance of regularly occupied spaces is required.	
Movement									
Interior Fitness Circulation	V-01	Use design features to encourage movement through the building and promote stairs as the default vertical transportation mode. At least 2 of the following should be provided for all staircases and hallways: artwork; light levels of at least 215lux when in use; views out or daylight via windows or skylights; natural design elements (e.g. plants or images of nature); and gamification. Implement point-of-decision signage that encourages stair use at each of the following locations: lifts: base of stairs/stairwells and re-entry points at each floor; and junctions in corridors that lead to either a stairwell open to regular building occupants or lifts.	Provide drawings and / or specification demonstrating compliance.		Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Provide photographic evidence and final drawings and / or specification demonstrating compliance.	Hawkins Brown		
Healthy Entrances	V-02	Main entrances are provided with entryway dirt/water gathering mechanism (such as mats) projecting 3m in the direction of travel. Doors designed to limit ingress of external air.	Stage 3 drawings to include revolving doors / building entry vestibule with two typically closed doorways for main entrances. Confirmation that entryway dirt / water gathering mechanisms will be incorporated into the design.	Stage 4 drawings and specifications to reflect the inclusion of compliant main entrances (either revolving doors / building entry vestibule with two typically closed doorways) and entryway dirt/water gathering mechanisms.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Provide photographic evidence and As Built drawings confirming compliance.	Hawkins Brown	Aligns with WELL issue A09 Pollution Infiltration Management - Design Healthy Entryways	

Topic	ID	Target	RIBA Stage 3 actions / outputs	RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
Light								
Healthy Sunlight Exposure and View out	L-01	Complete a daylight study. As a minimum, to ensure appropriate daylight and sunlight levels are achieved in regularly occupied spaces, 70% of all workstations should be within 7.5m of a transparent envelope glazing or atria. Visible light transmittance (VLT) of transparent glazing should be greater than 40%.	Design team to report on opportunities to improve daylight access. Solutions to be implemented where appropriate.	Confirm any changes to Stage 3 solution and narrative.	Confirm any changes to Stage 4 solution and narrative.		Buro Happold HawkinsBrown	
Visual Lighting Design	L-02	All indoor and outdoor spaces (including transition areas) comply with the illuminance thresholds specified in one of the following lighting reference guidelines: 1. IES Lighting Handbook 10th Edition. 2. EN 12464-1&2: 2011. 3. ISO 8995-1:2002(E) (CIE S 008/E:2001). 4. GB50034-2013. 5. CIBSE SLL Code for Lighting. The illuminance thresholds take into consideration the tasks and the age groups of the occupants.	Requirement to form part of the Stage 3 specification. Provide narrative confirming how the illuminance thresholds take into consideration the tasks and the age groups of the occupants.	Confirm any changes to Stage 3 solution and narrative.	Confirm any changes to Stage 4 solution and narrative.	Confirm any changes to Stage 4 solution and narrative. Provide As Built specification.	Buro Happold (MEP)	
Enhanced Lighting Colour Rendering Quality	L-03	All spaces: All luminaires (except decorative fixtures, emergency lights and other special-purpose lighting) meet at least one of the following colour rendering requirements. If tuneable white lighting is used, the requirements are met at 1,000K intervals from the lower end (with a minimum of 2,700K) to the higher end (with a maximum of 4,000k): a. CRI ≥90. b. CRI ≥ 80 with R9 ≥ 50. c. IES Rf ≥ 78, IES Rg ≥ 100, -1% ≤ IES Rcs,h1 ≤ 15%.	Requirement to form part of the Stage 3 specification.	Requirement to form part of the Stage 4 specification. Where available, provide manufacturer's literature confirming compliance.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Provide As Built specification and confirm any changes to Stage 4 agreed solution. If applicable, provide any additional manufacturer's literature confirming compliance.	Buro Happold (MEP)	
Surface Design	L-04	The following light reflectance values are met: - Ceilings: 0.8 - Walls: 0.7 - Furniture: 0.5	Requirement to form part of the specification.	Requirement to form part of the specification. Where available, provide manufacturer's literature confirming compliance.	Provide quarterly updates advising on any deviations to the Stage 4 agreed strategy.	Provide As Built specification and confirm any changes to Stage 4 agreed solution. If applicable, provide any additional manufacturer's literature confirming compliance.	HawkinsBrown	
Health								
Mould Control	H-01	UV lamps (254nm) are employed on the cooling coils and drain pans of mechanical systems within the new build element of the project.	Incorporate features.				Buro Happold (MEP)	Aligns with WELL issue A14 Microbe and Mould Control.
Acoustics								
Acoustic Design	S-01	Meet Ska issue D29 "Acoustic Design" as mandatory. An acoustician who is a corporate member (or higher) of the Institute of Acoustics or whose company holds membership of the Association of Noise Consultants is part of the design team and the criteria from the current BB93, or FIS Guide to Office Acoustics 2015, are used as design targets.	Provide a noise impact assessment / acoustic report confirming the proposed mechanical equipment sound levels / criteria comply with the recommended standard.	Criteria to be re-assessed at Stage 4 and design advice provided (if required)	Provide evidence confirming the Stage 4 advice from the acoustician has been adhered to by all disciplines. Any deviation to be fully justified.	In line with the proposed acoustic requirements, provide post-completion (internal) acoustic testing report and details of any mitigation measures required and implemented.	Acoustician Buro Happold (MEP) HawkinsBrown	
Thermal Comfort								
Thermal Comfort	T-01	Thermal comfort should be modelled and reported on using the CIBSE TM52 methodology. Where appropriate, building systems should be zoned to allow different user groups to have control over their internal environment. Overheating and daylighting studies should be carried out in tandem to ensure an optimum balance between the size of glazing, natural light, natural ventilation and active cooling needs.	If the programme allows, carry out the CIBSE TM52 report on thermal comfort, showing the risk of overheating using both the current and predicted future weather data in all areas including mechanically cooled areas. Carry out the daylighting study in tandem, and workshop the recommendations from this with the architect. Design ventilation strategy including zoning to reduce overheating. Provide mechanical treatment strategy including zoning. Architect / facade engineer to design openings in the facade to accommodate the required natural ventilation. Reject VE proposals which would increase the risk of overheating	Reject VE proposals which would increase the risk of overheating.			University Buro Happold (MEP) Lighting Engineer HawkinsBrown Façade Engineer AA Projects	
Healthy Materials								
Healthy Materials	X-01	Meet the requirements of WELL v2 X10, limiting the use of Volatile and Semi Volatile Organic Compounds in at least 20% of the products by cost, covering halogenated flame retardants, urea-formaldehyde and phthalates.	Architect and engineers to specify low VOC products in line with this target.	Value engineering options to meet this target	Low VOC products purchased		HawkinsBrown Buro Happold (MEP) Contractor	
Air								
Indoor Air Quality Monitoring	A-01	Occupants must be able to make informed decisions about manual window opening. As such, any indoor air quality monitoring should provide feedback to the occupants about the mechanical vent speed /automatic natural vent openings / informative traffic light system. Ensure that this is linked to research activities and/or living labs.	Agree control and feedback philosophy and how this will link to living labs. Incorporate features in ventilation control strategy.	Link to soft landings on controls and commissioning	MMU to implement living lab		Buro Happold (MEP) AA Projects University	Aligns with WELL issue 08 Air Quality Monitoring and Awareness. Stage 2 was too early to consider living labs. To be addressed at Stage 3.
Ventilation Effectiveness	A-02	Design for adequate ventilation rates. Where the ventilation rate is determined by the number of occupants, 12 l/s per person should be provided. Ventilate according to the CIBSE Guide B, CIBSE AM10 and Part F of the Building Regulations, any natural ventilation cooling requirements and all ventilation guidance relevant to the building type. Provide access to adequate natural ventilation and mixed mode ventilation where possible.	Provide ventilation strategy reflecting requirements.				Buro Happold (MEP)	Aligns with WELL issue A08 Air Quality Monitoring and Awareness.
Mitigate Construction Pollution	A-03	If permanently installed ventilation system are operating during construction, filters must meet the following: - Media filters with a PM10 removal rating of at least 70% (e.g., MERV 8) are used to filter return air. - All filters are replaced prior to occupancy. The project implements the following moisture and dust management procedures: - Carpets, acoustical ceiling panels, fabric wall coverings, insulation, upholstery and furnishings and other absorptive materials are stored separately in a designated area protected from moisture damage. - All active areas of work are isolated from other spaces by sealed doorways or windows or through the use of temporary barriers. - Walk-off mats are used at entryways to reduce the transfer of dirt and pollutants. - Saws and similar tools use dust guards or collectors to capture generated dust.	Provide a statement or other form of robust evidence to confirm that these requirements will form part of the contractor's requirements.	Requirements to form part of contractors requirements.	Contractor to confirm via specification or operational procedures document that this will be achieved.	Contractor to provide evidence this has been achieved.	AA Projects Contractor	
Air Filtration and Purification	A-04	HVAC systems must incorporate suitable filtration to minimise external air pollution.	MMU to brief the mechanical engineer as to any special particulate matter requirements in specialist spaces. Provide ventilation strategy reflecting requirements.				Buro Happold (MEP)	Aligns with WELL issue A12 Air Filtration.
Project Management and Ratings								
Revenue Costing	P-01	Whole life costing assessments considering capital, operational and revenue costs must inform all major design decisions and value engineering exercises. Whole life costing will be completed by the project team on key elements that are likely to have significant impact on energy use. Whole life costing is to be considered in all VE exercises using RICS Lifecycle Costing.	Carry out an LCC exercise using Net Present Value (£). This must include construction, operation and maintenance. Demonstrate the use of LCC to ensure the design solution for building envelope and services installation bring in better value (i.e. lower running cost, lower maintenance cost, etc.). Ensure the design decision takes into account the 60-years life cycle cost (LCC) of the project.	Design team to provide commentary and evidence demonstrating how the LCC exercise has informed the design. Life cycle cost assessment to take place to inform any further major design decisions and value engineering exercises.	Life cycle cost assessment to take place to inform any further major design decisions and value engineering exercises.	No further actions.	QS HawkinsBrown Client Design Team	

Topic	ID	Target	RIBA Stage 3 actions / outputs	RIBA Stage 4 actions / outputs	RIBA Stage 5 actions / outputs	RIBA Stage 6 actions / outputs	Responsibility (Stage 3)	Notes
BREEAM Rating (New Build)	P-02	Achieve a BREEAM NC 2018 rating of 'Excellent' as a minimum for the new build element.					All	
Soft Landings	P-04	Project team to develop and work in accordance with a Soft Landing plan specific to the project to ensure that the building users have the required knowledge and understanding so they can operate the building systems efficiently. Project programme must include Soft Landing actions and a Soft Landings Champion must be appointed on both client and project delivery team.	Define targets within the soft landings framework. Allocate time to engage with the briefing process in detail. Outline Training and Handover Plan, and make it a contractual obligation with client and contractor time allocations and champions.	Allocate time to engage with soft landings	Regular maintenance related workshops throughout the design. Maintenance section of O&M guide to be prepared.	Maintenance section of O&M guide to be prepared.	University Design Team Contractor	
WELL	P-06	All Capital Projects to undertake an assessment of the Wellbeing standard to consider implementation within the design etc. Seek direction from Dir of EFCD, PEx and ESG etc.	Assessment and report	Assessment and report	Assessment and report	Certify	BDP	
Post Occupancy Evaluation (POE)	P-08	Outline the POE plan, including energy monitoring against the TM54. This should be planned during WS3 and programmed in within 18 months of completion.	Provide an outline POE Plan. Make this a contractual obligation with client and contractor (time allocations and champions). Make sure that the metering and sub-metering breaks down the consumption in a way which can be easily compared with TM54			Conduct POE after 12 months PC Report on energy and water consumption against calculated values	University AA Projects Design Team Contractor	

Appendix 2: BREEAM Tracker

Manchester Metropolitan University Library Transformation

BREEAM New Construction (2018) Education v6: Design Stage Assessment

11-Aug-23

Target: Excellent (stretch target of Outstanding)

BREEAM Assessor: Kat Ringland (BDP)

BREEAM AP: Kat Ringland (BDP)

BDP.

Targeted

Not targeted

Achieved / compliant evidence received

Title	Credit Ref	Credits available	Route to Excellent (70% required)81.95%	Potential credits26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
MANAGEMENT (1 credit = 0.52%)								
Man 01: Project brief and design								
Project Delivery Planning	Man 01-01	1	0		1. Prior to completion of the Concept Design, the project delivery stakeholders (see comments) meet to identify and define for each key phase of project delivery: a. Roles b. Responsibilities c. Contributions 2. Consider each one of the following items when defining roles, responsibilities and contributions for each key phase of the project: a. End user requirements b. Aims of the design and design strategy c. Particular installation and construction requirements/limitations d. Occupiers budget and technical expertise in maintaining any proposed systems e. Maintainability and adaptability of the proposals f. Operational energy (see Ene 01 for further details) g. Requirements for the production of project and end user documentation h. Requirements for commissioning, training and aftercare support. 3. The project team demonstrate how the project delivery stakeholder's contributions and the consultation process outcomes influence the following: a. Initial Project Brief b. Project Execution Plan c. Communication Strategy d. Concept Design.	Project Manager / Design Team	2	Not available due to the requirement of a principal contractor or construction project manager (or similar) to be involved in the Stage 2 conversations.

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Stakeholder Consultation (Interested Parties)	Man 01-02	1	0		4. Prior to completion of the Concept Design, the independent third party consults with all interested parties (see comments) on matters that cover the minimum consultation content: 1. Functionality, build quality and impact (including aesthetics). 2. Provision of appropriate internal and external facilities (for future building occupants and visitors or users). 3. Management and operational implications. 4. Maintenance resources implications. 5. Impacts on the local community, e.g. local traffic or transportation impact. 6. Opportunities for shared use of facilities and infrastructure with the community or appropriate stakeholders. 7. Compliance with statutory (national or local) consultation requirements. 8. Energy use and sustainability measures. 9. Implementing principles and processes that deliver an inclusive and accessible design. In the case of educational building types, minimum content also includes: 10. How the building or grounds could best be designed to facilitate learning and provide a range of social spaces appropriate to the needs of a diverse range of pupils, students and other users, including people of all abilities. In the case of building types containing technical areas or functions, e.g. laboratories, workshops etc., minimum content also includes: 11. The end users' broad requirements for such facilities, including appropriate sizing, optimisation and integration of equipment and systems.	Project Manager / Design Team / Client	2	This issue has not been targeted as it requires the consultation to be undertaken by an independent third party (not the design team).
					5. Demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design.	Architect / M&E Consultant		
					6. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties give and receive consultation feedback.	Project Manager / Design Team	4	
					7. An independent party carries out the consultation exercise. The Design Quality Indicator and the Achieving Excellence Design Evaluation Toolkit could be used as methods to assess the design quality of buildings.	Project Manager / Design Team / Client	2	
BREEAM AP (Concept Design)	Man 01 pre	-	-	-	8. The project team, including the client, formally agree strategic performance targets early in the design process with the support of the BREEAM AP where appointed).	Project Manager / BREEAM AP	2	This will be achieved.
	Man 01-03	1	1		9. Involve a BREEAM AP in the project at an appropriate time and level to: a. Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM, from their appointment and throughout Concept Design. b. Monitor progress against the performance targets agreed under criterion 8 throughout all stages after their appointment where decisions critically impact BREEAM performance. c. Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. d. Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. e. Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.			
BREEAM AP (Developed Design)	Man 01-04	1	1		10. Criteria 8 and 9 are achieved. 11. Involve the BREEAM AP in the project at an appropriate time and level to: a. Work with the project team, including the client, to consider links between BREEAM issues and to assist them in maximising the project's overall performance against BREEAM throughout developed design. b. Monitor progress against the performance targets agreed under criterion 8, throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance. c. Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. d. Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. e. Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.	BREEAM AP	3	This will be achieved.

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Man 02: Life Cycle Cost and Service Life Planning								
Elemental Life Cycle Cost (LCC)	Man 02-01	2	2		1. A competent person carries out an outline, entire asset LCC plan at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865:2008.	Cost Consultant	2	
					2. The elemental LCC plan: a. Provides an indication of future replacement costs over a period of analysis as required by the client (e.g. 20,30,50 or 60 years); b. Includes service life, maintenance and operation cost estimates. The study period should ideally be agreed by the client, in line with the design life expectancy of the building. However, where the life expectancy of the building is not yet formally agreed (due to being at very early design stages), the default design life of 60 years should be used for modelling purposes (in line with the UK default).	Cost Consultant		
					3. Demonstrate, using appropriate examples provided by the design team, how the elemental LCC plan has been used to influence building and systems design/specification to minimise life cycle costs and maximise critical value.	Design Team		
Component Level LCC Option Appraisal	Man 02-02	1	1		4. A competent person develops a component level LCC options appraisal by the end of Process Stage 4 (equivalent to Technical Design – RIBA Stage 4) in line with PD 156865:2008. The component level LCC includes (where present): a. Envelope, e.g. cladding, windows, and/or roofing b. Services, e.g. heat source cooling source, and/or controls c. Finishes, e.g. walls, floors and/or ceilings d. External spaces, e.g. alternative hard landscaping, boundary protection The component level LCC option appraisal should review all of the above component types (where present). However, you do not need to consider every single example cited under each component; only a selection of those most likely to draw valued comparisons. This is to ensure that a wide range of options are considered and help focus the analysis on components which would benefit the most from the appraisal.	Cost Consultant	4	
					5. Demonstrate, using appropriate examples provided by the design team, how the component level LCC options appraisal has been used to influence building and systems design/specification to minimise life cycle costs and maximise critical value.	Design Team		
Capital Cost Reporting	Man 02-03	1	1		6. Report the capital cost for the building in pounds per square metre of gross internal floor area (£k/m2), as part of the submission to BRE. The capital cost for the building includes the expenses related to the initial construction of the building: – Construction, including preparatory works, materials, equipment and labour – Site management – Construction financing – Insurance and taxes during construction – Inspection and testing Costs related to land procurement, clearance, design, statutory approvals and post occupancy aftercare are not included.	Contractor / Project Manager		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Man 03: Responsible Construction Practices								
Pre-requisite	Man 03-pre	-	-	-	1. All timber and timber based products used during the construction process of the project are 'Legally harvested and traded timber'.	Contractor / Architect		This point is compulsory for MMU new build projects.
Environmental Management	Man 03-01	1	1		3. All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations. The EMS must: a. Be third party certified, to ISO 14001:2015/EMAS or equivalent standard; or b. In compliance with BS 8555:2016 have: i. Appropriate structure ii. Reached implementation stage phase four 'implementation and operation of the environmental management system' iii. Completed defined phase audits one to four.	Contractor		All contractors (including any demolition contractors) will be ISO 14001 accredited.
					4. All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines.			
BREEAM AP (Site)	Man 03-02 pre	-	-	-	5. The client and the contractor formally agree performance targets.	Contractor		The principal contractor will have within their site team someone who is qualified as a BREEAM Advisory Professional.
	Man 03-02	1	1		6. Involve a BREEAM AP in the project at an appropriate time and level to: a. Work with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving and if possible going beyond the design intent, to maximise the project's performance against the agreed performance targets throughout the Construction, Handover and Close Out stages. b. Monitor construction progress against the performance targets agreed under criterion 5 above throughout all stages where decisions critically impact BREEAM performance. c. Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5. d. Provide feedback to the constructors and the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. e. Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor.	Contractor		
Responsible Construction Management	Man 03-03	2	2		One credit: 7. Achieve items listed as required for one credit in table 4.1 of the guidance manual. Two credits: 8. Achieve criterion 7 9. Achieve six additional items in table 4.1 of the guidance manual.	Contractor		1 credit is mandatory for Excellent and 2 credits for Outstanding Both credits will be achieved either where the contractor achieves a minimum score of 35 under the Considerate Constructors Scheme or complying with criterion 9. This relates to construction site safety, safe, minimising construction pollution, staff wellbeing, training and awareness etc.

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Monitoring of Construction-Site Impacts	Man 03-04	2	2		10. Responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy use, water consumption and transport data (where measured) resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme. To ensure the robust collection of information, this individual(s) must have the appropriate authority and responsibility to request and access the data required. Where appointed, the BREEAM AP could perform this role.	Contractor		
					First Monitoring Credit - Utility consumption Energy consumption 11. Achieve criterion 10. 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. 13. Monitor and record date for the energy consumption described in criterion 12. 14. Report the total carbon dioxide emissions (total kgCO2/project value) from the construction process via the BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking). Water consumption 15. Achieve criterion 10. 16. Set targets for the potable water consumption (m³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. 17. Monitor and record data for the potable water consumption described in criterion 18. Use the collated data to report the total net water consumption (m³), i.e. consumption minus any recycled water use from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).	Contractor		
					Second Credit - Transport of construction materials and waste 19. Achieve Criterion 10. 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 cover: 20.a. Transport of materials from the point of supply to the building site, including any transport, intermediate storage and point of supply. Monitor as a minimum: 20.a.i. Materials used in major building elements (e.g. those defined in BREEAM issue Mat01 Environmental impacts from construction products - Building life cycle assessment (LCA). 20.a.ii. Ground works and landscaping materials. 20.b. 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. 21. Monitor and record data for the transportation movement as described in criterion 20. 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).	Contractor		
Exemplary Level Criteria	Man 03-Ex	1	1		23. Achieve all items in Table 4.1 of the guidance manual.	Contractor		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Man 04: Commissioning and handover								
Commissioning and Testing Schedule and Responsibilities	Man 04-01	1	1		1. Prepare a schedule of commissioning and testing. The schedule identifies 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. 2. The schedule identifies the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with: a. Current Building Regulations b. BSRIA guidelines c. CIBSE guidelines d. Other appropriate standards (see Methodology) Exclude from the assessment any process or manufacture-related equipment specified as part of the project. However, include such equipment in cases where they form an integral part of the building HVAC services, such as some heat recovery systems. 3. Where a building management system (BMS) is specified: a. Carry out the 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. 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. 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.	Contractor		Mandatory for BREEAM Excellent and Outstanding This point is compulsory for MMU new build projects.
Commissioning - Design and Preparation	Man 04-02	1	1		6. Achieve criteria 1-5. 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.	Client / Contractor		This point is compulsory for MMU new build projects.
Testing and Inspecting Building Fabric	Man 04-03	1	1		8. Achieve criteria 1-5. 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. 10. Rectify any defects identified during post-construction testing and inspection 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.	Contractor		This point is compulsory for MMU new build projects. WELL crosswalk: This must be achieved to achieve WELL issue A09.2 "Perform Envelope Commissioning" (currently targeted).

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Handover	Man 04-04	1	1		11. Prior to handover, develop two building user guides for the following users: a. A non-technical user guide for distribution to the building occupiers b. A technical user guide for the premises facilities managers c. 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. 12. Prepare two training schedules timed appropriately around handover and proposed occupation plans for the following users: a. A non-technical training schedule for the building occupiers b. A technical training schedule for the premises facilities managers.	Contractor		Provision of a compliant BUG is mandatory for BREEAM Excellent and Outstanding This point is compulsory for MMU new build projects.
Man 05: Aftercare								
Aftercare Support	Man 05-01	1	1		1. Provide aftercare support to the building occupiers through having in place operational infrastructure and resources. This includes as a minimum: 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: i. Introduce the aftercare support available, including the content of the building user guide (where it exists) and training schedule. ii. 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: i. a walkabout of the building AND ii. introduction and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. c. Provide initial aftercare support for at least the first month of building occupation, e.g. weekly attendance on-site, to support building users and management (the level of frequency will depend on the complexity of the building and building operations). d. Provide longer term aftercare support for occupiers for at least the first 12 months from occupation, e.g. a helpline, nominated individual or other appropriate system to support building users/management. 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 facilities analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and/or user behaviours accordingly.	Contractor		
Commissioning - Implementation	Man 05-02	1	1		3. Complete the following commissioning activities over a minimum 12-month period, once the building becomes substantially occupied: a. Complex systems - Specialist Commissioning Manager will: 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, i.e. heating equipment in mid-winter, cooling and ventilation equipment in mid-summer and under 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 Ene01 Reduction of energy use and carbon emissions). 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. b. Simple systems (naturally ventilated) - external consultant/aftercare team/facilities manager will: i. Review thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback. ii. Identify deficiencies and areas in need of improvement. iii. Re-commission systems and incorporate any relevant revisions in operating procedures into the O&M manuals.	Contractor		Mandatory for BREEAM Excellent and Outstanding

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Post Occupancy Evaluation	Man 05-03	1	1		4. The client or building occupier makes a commitment to carry out a post-occupancy evaluation (POE) exercise one year after 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 inform operational processes. 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 6. The independent party provides a report with lessons learned to the client and building occupiers. 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. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance.	Client		Potential additional appointment required: Independent third party to undertake the post occupancy evaluation exercise.
HEALTH AND WELLBEING (1 credit = 0.78%)								
Hea 01: Visual Comfort								
Control of Glare from Sunlight	Hea 01-01	1	1		1. Identify areas at risk of glare using a glare control assessment, The glare control assessment also justifies any areas deemed not at risk of glare. 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. 3. The glare control strategy does not increase energy and consumption used for lighting. This is achieved by: a. Maximising daylight levels in all weather, cloudy or sunny AND b. Ensuring the use or location of shading does not conflict with the operation of lighting control systems.	Architect		This point is compulsory for MMU new build projects. WELL crosswalk: Required for WELL issue L05.2 "Integrate Solar Shading" (currently targeted). Compliant shading measures for meeting the glare control criteria can include: – building-integrated measures (e.g. overhangs or fins) – occupant-controlled devices such as opaque Venetian or close weave fabric blinds, (where the openness factor of blinds is 1% or less, and where the fabric light transmittance value is < 0.1 (10%)) – external shading or brise soleil.
Daylighting	Hea 01-02	2	0	2	4. Daylighting criteria have been met using either of the following options: a. The relevant building areas meet good practice daylight factor(s) and other criterion as outlined in Table -5.1 and Table - 5.2: - Higher education occupied spaces: Average 2% daylight factor in at least 80% (for 2 credits) or 60% (for 1 credit) of relevant areas AND: - EITHER achieve the BREEAM requirements for uniformity ratio OR view of sky and room depth criteria OR b. The relevant building areas meet good practice average and minimum average daylight illuminance criteria as outlined in Table - 5.3.	M&E Consultant / Architect		The percentage of the total floor area of all relevant rooms must comply where the criteria specify that a percentage of floor area must have adequate daylight illuminance. For example, six relevant rooms each have a floor area of 150m² making a total relevant floor area of 900m²; 80% of this floor area must meet the criterion, so 720m² must comply. This is the equivalent to 4.8 rooms. The number of rooms must always be rounded up so, in this example, five rooms must comply to achieve the credit. If at least 1 point is achieved, compliance with WELL issue L01.1 "Provide Indoor Light" will be automatically achieved.

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
View Out	Hea 01-03	1	0	1	5. 95% of the floor area in 95% of space in relevant building areas is within 8m of an external wall. The external wall has a window or permanent opening that provides an adequate view out. 6.The window/opening must be ≥ 20% of the surrounding wall area. Where the room depth is greater than 8m, compliance is only possible where the percentage of window/opening is the same as, or greater than, the values in Table 1.0 of BS 8206:part 2.	Architect		This credit can be difficult to achieve in larger buildings. If it is not possible to confirm which areas of the building will contain workstations, benches or desks, all areas of the building designed for or likely to be occupied by workstations, benches or desks must comply with the relevant criteria.
Internal and External Lighting Levels, Zoning and Control	Hea 01-04	1	1		Internal Lighting 8. 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. Internal lighting should be appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. 9. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 2.4, 2.13, 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 surface is used to reflect light in to a space such as up lighting, 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. External Lighting 10. All external lighting located within the construction zone is specified in accordance with BS5489-1:2013 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 workplaces. External lighting should provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. 11. Where no external light fittings are specified (either separate from or mounted on the external building façade of roof), the criteria relating to external lighting do not apply and the credit can be awarded on the basis of compliance with criteria 8-9. Zoning and occupant control 12. 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/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/dining areas i. Retail: separate zoning of display and counter areas j. Bar areas: separate zoning of bar and seating areas k. Wards or bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of bed spaces l. Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff.	M&E Consultant		

Title	Credit Ref	Credits available	81.95% Route to Excellent (70% required)	26.27% Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Exemplary Level Criteria	Hea 01-EX 1	1	0	1	13. To achieve an exemplary performance credit for daylighting: Daylighting criteria have been met using either of the following options: a. Relevant building areas meet exemplary daylight factors and the relevant criteria in Table 5.8 of the guidance manual. b. Relevant building areas meet exemplary average and minimum point daylight illuminance criteria in Table 5.9 of the guidance manual.	M&E Consultant / Architect		
	Hea 01-EX 2	1	0	1	16. To achieve an exemplary performance credit for Internal and external lighting levels, zoning and control: Lighting in each zone can be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. Dimming and control gear should avoid flicker and noise.	M&E Consultant		
Hea 02: Indoor Air Quality								
Pre-requisite	Hea 02-Pre	-	-	-	1. A site-specific indoor air quality plan has been produced and implemented in accordance with Guidance Note 6 (GN06). The objective of the plan is to facilitate a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during occupation of the building. The indoor air quality plan must consider the following: a. Removal of contaminant sources b. Dilution and control of contaminant sources, including: i. Air quality requirements of specialist areas such as laboratories, where present c. Procedures for pre-occupancy flush out and purge ventilation d. Third party testing and analysis e. Maintaining good indoor air quality in-use f. Any relevant local authority plans or policies (for example, Air Quality Management Areas or Local Air Quality Action Plans)	M&E Consultant / Architect / Contractor		
Ventilation	Hea 02-01	1	0	1	2. The building has been designed to minimise the indoor concentration and recirculation of pollutants in the building as follows: a. Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation. b. Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building (see methodology on page 96 of BREEAM manual). c. Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 16798-3:2017. The specified filters should achieve supply air classification of at least SUP 2. d. Occupied spaces have carbon dioxide (CO ₂) or air quality sensors specified in accordance with Building Regulations ADF2 and: i. In mechanically ventilated buildings or spaces, sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space. ii. In naturally ventilated buildings or spaces, sensors either have the ability to alert the building owner or manager when CO ₂ levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, e.g. automatic opening windows or roof vents. iii. The total number of sensors, and the net internal area of relevant areas covered by the sensors, is reported via the BREEAM Scoring and Reporting Tool. e. The ventilation strategy provides adequate ventilation rates throughout the year, including sufficient airflow rates in summer to prevent overheating and maintain required thermal comfort conditions, in accordance with: i. CIBSE AM10 (for naturally ventilated buildings) ii. CIBSE AM13 (for mixed-mode buildings)	M&E Consultant		Where this issue (and issue Man 04-02) is achieved, WELL issues A03.1 "Ensure Adequate Ventilation", A06.1 "Increase Outdoor Air Supply" and A12.1 "Implement Particle Filtration" will be achieved by default. A06 is not currently targeted and A03 and A12 will be met through other means.
Emissions from Construction Products	Hea 02-02	2	2		One credit: 3. Three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 of the guidance manual. Where wood-based products are not one of the three selected product types, all wood-based products used for internal fixtures fittings must be tested and classified as formaldehyde E1 class as a minimum.	Architect / Contractor		WELL crosswalks: Both credits required to achieve X06.1 "Limit VOCs from Wet-Applied Products" and X06.2 "Restrict VOC Emissions from Furniture, Architectural and Interior Products"
					Two credits: 4. All of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 of the guidance manual.			

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Post Construction Indoor Air Quality Measurement	Hea 02-03	1	1	26.27%	5. The formaldehyde concentration indoor air is measured post construction (but pre-occupancy) and does not exceed 100µg/ m³ averaged over 30 minutes. (World Health Organisation guidelines for indoor air quality: Selected pollutants, 2010). 6. The formaldehyde sampling and analysis is performed in accordance with ISO 16000-2 and ISO 16000-3. 7. The total volatile organic compound (TVOC) concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 300µg/ m³ over 8 hours. 8. The TVOC sampling and analysis is performed in accordance with ISO 16000-5 and ISO 16000-6 or ISO 16017-1. 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 TVOC and formaldehyde levels to within the above limits. 10. The measured concentration levels of formaldehyde (µg/ m³) are reported via the BREEAM Scoring and Reporting Tool.	Contractor		
Exemplary Level Criteria	Hea 02-Ex	1	0	1	11. Three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12 of the guidance manual. Where wood-based products are not one of the three selected product types, all wood-based products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum,	Architect		
Hea 04: Thermal Comfort								
Thermal Modelling	Hea 04-01	1	1		1. Thermal modelling has been carried out using software in accordance with CIBSE AM11 Building Energy and Performance Modelling. 2. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSE AM11). 3. 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 Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type) or the thermal environment in occupied spaces meet the Category B requirements for PPD, PMV and local discomfort set out in Table A.1 of Annex A of ISO 7730:2005. b. For naturally ventilated buildings: i. Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type). ii. The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings or CIBSE TM59: Design methodology for the assessment of overheating risk in homes. 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.	M&E Consultant		

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Design for Future Thermal Comfort	Hea 04-02	1	1		5. Criteria 1 to 4 are achieved. 6. The thermal modelling demonstrates that the relevant requirements set out in criteria 3 are achieved for a projected climate change environment. 7. Where criterion 6 is not met, the project team demonstrated 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. 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.	M&E Consultant		
Thermal Zoning and Controls	Hea 04-03	1	1		9. Criteria 1 to 4 are achieved 10. The thermal modelling analysis (criteria 1 to 4) has informed the temperature control strategy for the building and its users. 11. The strategy for proposed heating/cooling system(s) 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 external perimeter adjacent to the windows. b. The degree of occupant control required for these zones, based on discussions with the end user (or alternatively building type or use specific design guidance, case studies, feedback) considers: b.i. User knowledge of building services b.ii. Occupancy type, patterns and room functions (and therefore appropriate level of control required) b.iii. How the user is likely to operate or interact with the system(s), e.g. are they likely to open windows, access thermostatic radiator valves (TRV) on radiators, change air-conditioning settings etc. b.iv. 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). 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.	M&E Consultant		WELL crosswalks: Required for issue T03.1 "Provide Thermostat Control"
Hea 05: Acoustic Performance								
Acoustic Performance	Hea 05-01	3	3		1. The building meets the appropriate acoustic performance standards and testing requirements defined in Table 5.14 of the guidance manual which defines criteria for the acoustic principles of: a. Sound insulation b. Indoor ambient noise level c. Room acoustics. OR 2. A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all function areas in the building. The bespoke performance requirements use the three acoustic principles defined in criterion Hea 05 Acoustic Performance - Criterion 1, setting out the performance requirements for each and the testing regime required.	Acoustician / Contractor		WELL crosswalks: A number of WELL points rely on achieving the BREEAM credits for sound insulation and indoor ambient noise levels.

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Hea 06: Security								
Security of Site and Building	Hea 06-01	1	1		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.	Architect / Client / SQSS	2	This point is compulsory for MMU new build projects.
					2. The SQSS develops a set of security controls and recommendations for incorporation into the proposals. These controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA.			
					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 SQSS.	Architect / M&E Consultant		
Exemplary Level Criteria	Hea 06-Ex	1	0	1	4. To achieve an exemplary level performance credit: A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification.	Architect		
Hea 07: Safe and Healthy Surroundings								
Safe Access	Hea 07-01	1	0	1	1. Where external site areas form part of the assessed development the following apply: Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to off-site cycle paths where applicable.	Landscape Architect / Architect		This credit is typically difficult to achieve however the design team should endeavour to implement the criteria.
					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.			
					3. Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths.			
					Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply (criteria 4, 5 and 6): 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.			
					5. There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking.			
					6. 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.			
Outside Space	Hea 07-02	1	1		7. There is an outside space providing building users with an external amenity area. Outside space must have appropriate seating areas and be non-smoking.	Architect / Client		The following requirements must be met: - The external amenity area needs to be landscaped - The space must be non-smoking - The space must be situated away from areas with disturbances from sources of noise e.g. building services, car parks, busy roads, delivery areas.

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ENERGY (1 credit = 0.69%)								
Ene 01: Reduction of energy use and carbon emissions								
Energy Performance	Ene 01-01	9	4	5	1. Calculate an Energy Performance Ratio for New Constructions (EPRNC). Compare the EPRNC achieved with the benchmarks in Table 6.1 in the guidance manual and award the corresponding number of BREEAM credits.	M&E Consultant		A minimum of 4 credits is mandatory for Excellent (achieved either through Ene 01-01 or Ene 01-02). A minimum of 6 Ene 01-01 credits is mandatory for Outstanding.
Prediction of Operational Energy Consumption	Ene 01-02	4	4		2. Achieve criterion 2 in Ene 04 Low carbon design ("The project team analyses the proposed building design and development during Concept Design to identify opportunities for the implementation of passive design measures")	M&E Consultant		Mandatory for Outstanding To achieve these credits it must be demonstrated that the operational energy performance of the building has been substantially improved. It is assumed that TM54 modelling would be in line with the likely net zero carbon commitments. Calculations must be undertaken in line with the BREEAM methodology.
					3. Estimate the occupancy, energy use for unregulated energy loads and management practices.			
					4. Undertake detailed energy modelling to predict the building energy consumption.			
					5. Undertake sensitivity analysis to determine the factors that can significantly impact building energy consumption.			
					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.			
					7. Undertake scenario modelling and use these findings to inform improvements to design of the building and to operational, maintenance, and handover strategies.			
					8. Determine an energy target for the building based on the results of the scenario modelling.			
					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.			
Exemplary Level Criteria	Ene 01-Ex	2	0		6. The building achieves an EPR NC ≥ 0.9 and zero net regulated CO -eq emissions.	M&E Consultant		These credits require the development to be zero carbon for regulated operational energy and achieve a 10% (1 credit) / 50% (2 credits) reduction in unregulated energy from on site LZCs.
					7. Energy generation from on-site and near-site LZC sources is sufficient to offset carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use.			
					8. Award the exemplary credits based on the percentage of additional emissions from unregulated energy that are offset by LZC sources. (Table 6.2 guidance manual).			
	Ene 01-Ex	3	0		9. The building is deemed carbon negative where >100% (see Table 6.2 guidance manual) of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources.	M&E Consultant		

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Ene 02: Energy Monitoring								
Sub-Metering of End-Use Categories	Ene 02-01	1	1		1. Install energy metering systems so at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories.	M&E Consultant		Mandatory End-use categories include: 1. Space heating 2. Domestic hot water heating 3. Humidification* 4. Cooling* 5. Ventilation, i.e. fans (major)* 6. Pumps 7. Lighting 8. Small power 9. Renewable or low carbon systems (separately) 10. Controls 11. Other major energy consuming systems or plant, where appropriate. Depending on the building type, this might include for example: plant used for swimming or hydrotherapy pools; other sports and leisure facilities; kitchen plant or catering equipment; office equipment; cold storage plant; laboratory plant; sterile services equipment; transportation systems (e.g. lifts and escalators); drama studios and theatres with large lighting rigs; telecommunications; dedicated computer room or suite; server rooms; dealing rooms; covered car parks; ovens or furnaces; and floodlighting. See also CIBSE TM39: Building energy metering for further information.
					2. Meter the energy consumption in buildings according to the total useful floor area: a. If the area is greater than 1,000m², by end-use category with an appropriate energy monitoring and management system. b. If the area is less than 1,000m², use either: i. an energy monitoring and management system or ii. separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system			
					3. Building users can identify the energy consuming end users, for example through labelling or data outputs.			
Sub-Metering of High Energy Load and Tenancy Areas	Ene 02-02	1	1		4. Monitor a significant majority of the energy supply with: a. An accessible energy monitoring and management system for: i. tenanted areas or ii. Relevant function areas or departments in single occupancy buildings OR b. Separate accessible energy sub-meters with pulsed or other open protocol communication outputs for future connection to an energy monitoring and management system for: i tenanted areas ii. relevant function areas or departments in single occupancy buildings.	M&E Consultant		Typical function areas in higher education spaces: 1. Kitchens (excluding small staff kitchens and food technology rooms) 2. Computer suites 3. Workshops 4. Lecture halls 5. Conference rooms 6. Drama studios 7. Swimming pools 8. Sports halls 9. Process areas 10. Laboratories 11. High containment suites within laboratories 12. Controlled environment chambers 13. Animal accommodation areas 14. Data centres 15. IT work and study rooms, including IT-equipped library space and any space with provision of more than one computer terminal per 5m² Individual sub-metering of standard classrooms or seminar rooms is not required.
					5. Sub-meter per floor plate in large single occupancy or single-tenancy buildings with one homogenous function, for example hotel bedrooms, offices.			
Ene 03: External Lighting								
External Lighting	Ene 03-01	1	1		1. No external lighting (which includes lighting on the building, at entrances and signs).	M&E Consultant		
					OR 2. External light fittings within the construction zone with: a. Average initial efficacy of not less than 70 luminaire lumens per circuit Watt. b. Automatic control to prevent operation during daylight hours. c. Presence detection in areas of intermittent pedestrian traffic.			

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Ene 04: Low carbon design								
Passive Design Analysis	Ene 04-01	1	1		1. Achieve the first credit Hea 04 Thermal comfort: One credit - Thermal modelling to demonstrate that the building design delivers appropriate thermal comfort levels in occupied spaces.	M&E Consultant		
					2. The project design team analyses the proposed building design and development during concept design to identify opportunities for the implementation of passive design measures.	M&E Consultant	2	
					3. Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings.	M&E Consultant / Architect		
					4. Quantify the reduced total energy demand and carbon dioxide (CO) emissions resulting from the passive design measures.	M&E Consultant		
Free Cooling	Ene 04-02	1	0	1	5. Achieve the passive design analysis credit.	M&E Consultant		The free cooling should apply to all occupied spaces in the building. Small IT rooms and lift motor rooms are excluded.
					6. Include free cooling analysis in the passive design analysis carried out under criterion 2.			
					7. Identify opportunities for the implementation of free cooling solutions.			
					8. The building is naturally ventilated or uses any combination of the free cooling strategies listed in free cooling analysis.			
Low and Zero Carbon Feasibility Study	Ene 04-03	1	1		9. An energy specialist completes a feasibility study by the end of the concept design.	M&E Consultant	2	
					10. Establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy sources for the building or development based on the feasibility study.			
					11. Specify local LZC technologies for the building or development in line with the feasibility study recommendations.	M&E Consultant / Architect		
					12. Quantify the reduced regulated carbon dioxide (CO) emissions resulting from the feasibility study.	M&E Consultant		
Ene 06: Energy Efficient Transportation Systems								
Energy Consumption	Ene 06-01	1	1		1. For specified lifts, escalators and 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 and/or moving walks. b. Calculate the energy consumption in accordance with BS EN ISO 25745 Energy performance of lifts, escalators and moving walks, Part 2 : Energy calculation and classification for lifts (elevators) and/or Part 3 - Energy calculation and classification for escalators and moving walks, for one of the following: i. At least two types of system (for each transportation type required); OR ii. An arrangement of systems (e.g. for lifts, hydraulic, traction, machine room-less lift (MRL)); OR iii. A system strategy which is 'fit for purpose'. c. Consider the use of regenerative drives, subject to the requirements in the guidance manual. d. Specify the transportation system with the lowest energy consumption.	M&E Consultant		

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Energy Efficient Features	Ene 06-02	1	1		2. Criterion 1 is achieved.	Lift Consultant / M&E Consultant		
					3. 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 luminaire lumens/circuit Watt. c. The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.			
					4. Specify regenerative drives where their use is demonstrated to save energy.			
					Ene 08: Energy Efficient Equipment			
Energy Efficient Equipment	Ene 08-01	2	0	2	1. Identify the building's unregulated energy consuming loads and estimate their contribution to the total annual unregulated energy consumption of the building, assuming a typical/standard specification.	M&E Consultant / Client		Sources of unregulated energy (for BREEAM Ene 08 purposes) include: - Laundry facilities with commercial-sized appliances - Data centres - IT-intensive operating areas - Domestic-scale appliances - Kitchen and catering facilities - Healthcare (the procurement of large-scale equipment and sets of electrical equipment has been informed and selected by life cycle costing analysis for at least two options in accordance with HTM07-02 Part B, Chapter 1. 'Large-scale equipment' includes commercial-scale catering and laundry equipment and all other equipment with connected electrical loads in excess of 10kW rated input power). This includes commercial-scale catering and laundry equipment and all other equipment with connected electrical loads in excess of 10 kW rated input power. The BRE provide a list of measures of how unregulated energy associated with the above should be reduced.
					2. Identify the systems and/or processes that use a significant proportion of the total annual unregulated energy consumption of the building.			
					3. Demonstrate a meaningful reduction in the total annual unregulated energy demand of the building. Table 6.5 in the guidance manual lists examples of significant contributors to unregulated energy consumption and the associated criteria. If additional significant contributors, not listed in the table, will be specified, the design team should justify how a meaningful reduction will be achieved for these contributors.			
TRANSPORT (1 credit = 0.83%)								
Tra 01: Transport Assessment and Travel Plan								
Travel Plan	Tra 01-01	2	0		1. No later than Concept Design stage, undertake a site-specific transport assessment (or statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form (in line with the BREEAM methodology).	Transport Consultant	2	
					2 The site-specific travel assessment (or statement) shall cover as a minimum: a. If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. b. Predicted travel patterns and transport impact of future building or site users. c. Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. d. Reporting of the number and type of existing accessible amenities (as per Table 7.1 of the BREEAM guidance manual), within 500m of the site. e. Disabled access accounting for varying levels and types of disability, including visual impairment. f. Calculation of the existing public transport Accessibility Index (AI), in line with the BREEAM methodology. g. Current facilities for cyclists.			
					3. Following a transport assessment (in accordance with the requirements set out in criteria 2a-2g) develop a site-specific travel plan, that provides a long term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation (see Methodology).			
					4. If the occupier is known, involve them in the development of the travel plan.	Client		
5. Demonstrate that the travel plan will be implemented and supported by the building's management in operation.								

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Tra 02: Sustainable Transport Measures								
Sustainable Transport Measures	Tra 02-Pre	-	-	-	1. Achieve criteria 3-5 in the Tra 01 Transport assessment and travel plan issue.	Design Team		Provision of a public transport information system is compulsory for new build MMU projects.
	Tra 02-01	10	9	1	2. Identify the sustainable transport measures in table 7.4 of the guidance manual (see criterion 3 and comments section). 3. Award credits according to the Accessible Index of the project and the total number of points achieved for the options implemented. Current anticipated measures include: - Achieve an accessibility index (AI) of at least 8 (1 point) - Improve the AI through negotiation with local transport companies (2 points) - Demonstrate increase over existing AI. This could be through provision of a diverted bus route, new or enhanced bus stop or other similar solutions (3 points) - Provide a real-time public transport information system in a publicly accessible area, to allow building users access to up-to-date information on the available public transport and transport infrastructure. This may include signposting to public transport, cycling, walking, infrastructure or local amenities (1 point). - Provide EV charging stations of at least 3kW for at least 10% of parking spaces - Set up a compliant car sharing group (includes providing priority spaces for car sharers for at least 5% of total car parking capacity) (1 point). - Provide compliant cycle spaces (1 point) - Provide compliant cyclist facilities (1 point) - Access to at least 3 existing amenities (1 point) - Provide 1 new amenity (2 points) - Provide more than 1 new amenity (3 points)			
WATER (1 credit = 0.78%)								
Wat 01: Water Consumption								
Water Consumption	Wat 01-01	5	4	1	1. Use the BREEAM Wat 01 calculator to assess the efficiency of the domestic water-consuming components.	Architect / M&E Consultant		A minimum of 1 credit is mandatory for Excellent and 2 credits for Outstanding A minimum of 4 credits is compulsory for MMU new build projects.
					2. Use the standard Wat01 method to compare the water consumption (litres/person/day) for the assessed building against a baseline performance. Award BREEAM credits based upon the following: 1 credit: 12.5% 2 credits: 25% 3 credits: 40% 4 credits: 50% 5 credits: 55% Where it is not possible to use the standard method, and for some building types, complete the assessment using the alternative Wat 01 method.			
					3. If a greywater or rainwater system is specified, use its yield in L/person/day to offset potable water demand from components.			
					4. If a greywater or rainwater system is specified and installed: a. Greywater systems in compliance with BS 8525-1:2010 Greywater systems - Part 1 Code of Practice. b. Rainwater systems in compliance with BS 8515:2009+A1:2013 Rainwater harvesting systems - Code of practice Achieve Assessment scope - Criterion 6 on page 201, if you intend to pursue a post occupancy stage certification.			
					5. If applicable, the flushing control for each WC or urinal must be suitable for operation by patients with frail or infirm hands or activated by electric sensors.			

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Exemplary Level Criteria	Wat 01-Ex	1	0	1	To achieve an exemplary performance credit: 7. Achieve criteria 1 to 4.	Architect / M&E Consultant		
					8. The water consumption (litres/person/day) for the assessed building achieves the 65% improvement described as exemplary performance in Table 8.1 of the guidance manual.			
Wat 02: Water Monitoring								
Water Monitoring	Wat 02-01	1	1		1. The specification of a water meter on the mains water supply to each building; this includes instances where water is supplied via a borehole or other private source.	M&E Consultant		Criterion 1 is mandatory. This point is compulsory for MMU new build projects.
					2. Water-consuming plant or building areas, consuming 10% or more of the building's total water demand: a. Fit easily accessible sub-meters OR b. Install water monitoring equipment integral to the plant or area.			
					3. For each meter (main and sub): 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 building management system (BMS), for the monitoring of water consumption. If there is no BMS system in operation at Post-Construction stage, award credits provided that the system used enables connection when the BMS becomes operational.			
					4. In buildings with swimming pools, or large water tanks and aquariums, fit separate sub-meters on the water supply of the above and any associated changing facilities (toilets, showers etc.) irrespective of their water consumption levels.			
					5. In buildings containing laboratories, fit a separate water meter on the water supply to any process cooling loop for 'plumbed in' laboratory process equipment, irrespective of their water consumption levels.			
Wat 03: Water Leak Detection and Prevention								
Leak Detection System	Wat 03-01	1	1		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 leak between the utilities supply and the buildings under assessment.	M&E Consultant		This point is compulsory for MMU new build projects.
					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 owners or occupiers usage patterns. d. Programmable to suit the owner's or occupiers water consumption criteria. e. Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers. Where there is physically no space for a leak detection system between the utilities water meter and the building, alternative solutions can be used, provided that a major leak can still be detected.			

Title	Credit Ref	Credits available	Route to Excellent (70% required)81.95%	Potential credits26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Flow Control Devices	Wat 03-02	1	1		3. Install flow control devices that regulate the supply of water to each WC area/sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework.	M&E Consultant		
Wat 04: Water Efficient Equipment								
Water Efficient Equipment	Wat 04-01	1	1		1. Identify all water demands from users other than those considered under Wat 01 that could be realistically mitigated or reduced. Where there is no water demand from uses other than domestic -style, sanitary use components in the building, this issue is not applicable. 2. Identify systems or processes to reduce the relevant water demand (criterion 1) and establish, through either good practice design or specification, a demonstrable reduction in the total water demand of the building.	M&E Consultant / Client		For the purposes of this BREEAM Issue, non-domestic scale, non-sanitary water uses refer to any building integrated water uses not assessed under Wat 01. This includes, but is not limited to the following: – Swimming pools – Recreational hot tubs and hydrotherapy pools – Equipment used for irrigation – Vehicle wash equipment – Project-specific industrial processes – Water filtration and treatment processes – Building services (e.g. cooling towers and humidification systems) If irrigation is provided it is assumed that this will not use potable water.

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
MATERIALS (1 credit = 1.07%)								
Mat 01: Life Cycle Impacts								
Superstructure	Mat 01-01	6	6		Option appraisal during Concept Design (all building types). 4. During Concept Design, identify opportunities for reducing environmental impacts as follows: a. Carry out building LCA options appraisal of 2 to 4 significantly different superstructure design options (applicable to the Concept Design stage) b. Use a building LCA tool that is recognised by BREEAM (as suitable for assessing superstructure during Concept Design) according to the methodology. c. For each design option, fulfil the same functional requirements specified by the client and all statutory requirements (to ensure functional equivalency). d. Integrate the LCA options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document.	Architect / C&S Engineer	2	Mat 01-01 and the subsequent Mat 01 issues require a life cycle analysis and comparison of various materials specifications for different building elements, with a view to selecting materials specifications with the lowest embodied carbon and environmental life cycle impacts.
					e. Record the following in the Mat 01/02 Results Submission Tool: The differences between the design options; 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.			
					f. 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). If the building LCA tool recognised by BREEAM and used for criteria 3 to 5 (and 6 to 9, if pursued) is not an IMPACT Compliant LCA tool and criteria 1 to 2 are applicable, then BREEAM Simplified Building LCA tool (or an IMPACT Compliant LCA tool) shall be used for criteria 1 to 2.			
					g. Demonstrate how the LCA design options have informed the design decision-making process	Architect / C&S Engineer		
					Options appraisal during Technical Design (all building types) 5. 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 selected Concept Design option and as applicable to the Technical Design stage). b. Use a building LCA tool that is recognised by BREEAM (as suitable for assessing superstructure during Technical Design) according to the methodology. c. As criteria 4.c. to 4.e. above. 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. Where a project has not achieved criteria 3 and 4, criterion 5 may still be achieved.	Architect / LCA Consultant	4	

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Substructure and Hard Landscaping options appraisal	Mat 01-02	1	1		6. Criteria 3 and 4 are achieved.	C&S Engineer / Landscape Architect	2	
					7. 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 landscaping design options (at least two shall be substructure and at least two shall be hard landscaping). b. Using a building LCA tool that is recognised by BREEAM (as suitable for assessing substructure and hard landscaping during Concept Design) according to the methodology. c. As criteria 4.c. to 4.f.			
					d. Record the following in the Mat 01/02 Results Submission Tool: The differences between the design options; 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.			
					e. Demonstrate how the LCA design options have informed the design decision-making process	C&S Engineer / Landscape Architect		
Exemplary Performance Criteria	Mat 01-Ex1	1	1		8. Criteria 3-4 are achieved.	M&E Consultant	2	
					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 (as suitable for assessing core building services during Concept Design) according to the methodology. c. As criteria 4.c.to 4.f.			
					d. Record the following in the Mat 01/02 Results Submission Tool: The differences between the design options; 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.			
					e. Demonstrate how the LCA design options have informed the design decision-making process	M&E Consultant		

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Exemplary Performance Criteria	Mat 01-Ex2	1	0		10. Achieve criteria 3 to 5.	Design Team / LCA Consultant	2	
					11. Achieve the Elemental LCC plan and Component Level LCC options appraisal credits (Man 02 Life cycle cost and service life planning).			
					12. Include design options appraised for criteria 3 to 4 (and 6 to 7 and 8 to 9, if pursued) during Concept Design in the elemental LCC plan.			
					13. Include the design options appraised for criterion 5 during Technical Design in the 'Component Level LCC option appraisal' (in Man 02 Life cycle cost and service life planning)	Design Team / LCA Consultant		
	14. Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document including the relevant cost information from the 'elemental LCC plan' and 'Component level LCC option appraisal'.	Design Team / LCA Consultant						
	Mat 01-Ex3	1	0		15.Criteria 1 to 7 (as applicable to the building type) are achieved.	M&E Consultant		
					16. A suitably qualified third party either carries out the building LCA work or verifies the building LCA work (if by others), and produces a report describing how they have checked the building LCA work accurately represent the designs under consideration during Concept Design and Technical Design with reference to the requirements of criteria 1 to 7 (and 8 to 14 if pursued).			
					17. For each LCA option, itemise in the report the checks made by the suitably qualified third party including, as a minimum, the quality requirements shown in Table 9.4 on page 232. of the guidance manual.			
18. Include details of the suitably qualified third party's relevant skills and experience and a declaration of their third party independence from the project client and design team in the report.								
Mat 02: Environmental Impacts from Construction Products - Environmental Product Declarations (EPD)								
Specification of Products with a Recognised EPD	Mat 02-01	1	1		1. Specify construction products with EPD that achieve a total EPD points score of at least 20, according to the BREEAM methodology (to be supplied by the assessor).	Architect / Contractor		This issue requires the selection of a number of materials with the appropriate level of environmental performance declaration (EPD) certification.
					2. Enter the details of each EPD into the Mat 01/02 Results Submission Tool, including the material category classification. The mat 01/02 results submission tool will verify the EPD points score and credit award.	BDP BREEAM assessor		

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Mat 03: Responsible Sourcing of Construction Products								
Ensuring Sustainable Procurement	Mat 03-Pre	-	-	-	1. All timber and timber based products used on the project is ' Legally harvested and traded timber' as per the UK government's Timber Procurement Policy (TPP)	Contractor / Architect		Criterion 1 is mandatory for Excellent and Outstanding. Achieving all 3 Mat 03-02 credits is compulsory for MMU new build projects.
	Mat 03-01	1	1		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. Note: targets do not need to be achieved for the credit to be awarded but justification must be provided for targets that are not achieved. 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. In addition if the plan is applied to several sites or adopted at an organisational level it must: e. 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.	Architect	1	
Measuring Responsible Sourcing	Mat 03-02	3	3		3. Use the Mat 03 calculator tool and methodology to determine the number of credits achieved for the construction products specified or procured. Credits are awarded in proportion to the scope of the assessment and the number of points achieved. (Use table 9.10 in the guidance manual).	Contractor		
Mat 05: Designing for Durability and Resilience								
Designing for Durability and Resilience	Mat 05-01	1	1		Protecting vulnerable parts of the building from damage 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 (e.g. corridors, lifts, stairs, doors etc.) b. Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. c. External building fabric damage by vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building facade and where delivery areas or routes are within 2 metres of the facade i.e. specifying bollards or protection rails. d. Potential malicious damage to building materials and finishes in public and common areas where appropriate.	Architect		This point is compulsory for MMU new build projects.
					Protecting exposed parts of the building from material degradation 2. Key exposed building elements have been designed and specified to limit long and short term degradation due to environmental factors. This can be demonstrated through one of the following: a. The element or product achieving an appropriate quality or durability standard or design guide, see Table 9.14 of the guidance manual. 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.			
					3. Include convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design.			
					4. Design the roof and façade to prevent water damage, ingress and detrimental ponding. See Table 9.14 in the guidance manual for an example list of relevant industry durability and quality standards.			

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Mat 06: Material efficiency								
Material Efficiencies	Mat 06-01	1	0		1. At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials. These must be done for each of the following stages: a. Preparation and Brief b. Concept Design c. Developed Design d. Technical design e. Construction	Design Team / Architect	1 to 5	The RIBA Stage 1 actions were not completed. As such, this credit cannot be awarded. Material efficiency is picked up as part of the wider ES tracker targets, however.
					2. Develop and record the implementation of material efficiency during: a. Developed Design b. Technical Design c. Construction			
					3. Report the targets and actual material efficiencies achieved.			
WASTE (1 credit = 0.60%)								
Wst 01: Construction Waste Management								
Pre-Demolition Audit	Wst 01-01	1	1		1. Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of pre-demolition audit scope (listed in the BREEAM guidance manual) and: a. Be carried out at Concept Design stage (RIBA Stage 2) 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.	Demolition Contractor / Design Team	2	Potential additional appointment required: Pre-demolition consultant / suitably qualified person A BREEAM compliant pre-demolition audit will need to be undertaken to investigate the potential for the reuse of demolition materials, and to maximise opportunities for diversion of demolition materials from landfill. It has been confirmed that this will be undertaken by the principal contractor.
					2. Compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets.	Demolition Contractor		
					3. Make reference to the audit in the resource management plan (RMP).	Contractor		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Construction Resource Efficiency	Wst 01-02	3	2	1	4. Prepare a compliant Resource Management Plan (RMP) covering: a. Non-hazardous waste materials (from on-site construction and dedicated off-site manufacturer or fabrication) including demolition and excavation waste. b. Accurate data records on waste arising's and waste management routes. 5. Meet or improve upon the benchmarks below for non-hazardous construction waste, excluding demolition and excavation waste: Amount of waste generated per 100m2 GIFA: 1 credit: ≤ 13.3m3 actual volume (not bulk) / ≤ 11.1 tonnes 2 credits: ≤ 7.5m3 actual volume (not bulk) / ≤ 6.5 tonnes 3 credits: ≤ 3.4m3 actual volume (not bulk) / ≤ 3.2 tonnes Exemplary level: ≤ 1.6m3 actual volume (not bulk) / ≤ 1.9 tonnes	Contractor		A minimum of 1 credit is mandatory for Outstanding.
Diversion of Resources from Landfill	Wst 01-03	1	1		6. Meet, where applicable, the diversion from landfill benchmarks below for non-hazardous construction waste and demolition and excavation waste generated: Non-demolition: 70% volume / 80% tonnage Demolition: 80% volume / 90% tonnage Excavation: n/a 7. Sort waste materials into separate key waste groups as per Table 10.3 of the guidance manual, either on-site or through a licensed contractor for recovery.	Contractor		
Exemplary Performance Criteria	Wst 01-Ex	1	0	1	8. Non-hazardous construction waste generated, excluding demolition and excavation waste is less than or equal to the exemplary level resource efficiency benchmarks: Exemplary level: ≤ 1.6m2 actual volume (not bulk) / ≤ 1.9 tonnes 9. The percentage of non-hazardous construction (on-site and dedicated off-site manufacture/fabrication), demolition and excavation waste (if relevant) diverted from landfill meets or exceeds the exemplary level percentage benchmarks outlined below: Non-demolition: 85% volume / 90% tonnage Demolition: 85% volume / 95% tonnage Excavation: 95% volume / 95% tonnage 10. All key waste groups in Table 10.3 of the guidance manual, for diversion from landfill are covered in the RMP. 11. Waste data obtained from licenced external waste contractors is reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from PAS 402:2013 compliant company.	Contractor		

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Wst 02: Recycled Aggregates								
Pre- Requisite	Wst 02-Pre	-	-	-	1. If demolition occurs on site, to encourage the reuse of site-won material on site, complete a pre-demolition audit of any existing buildings, structures or hard surfaces in accordance with Assessment scope- Criterion 1 and Assessment Scope - Criterion 2	C&S Engineer		These points are typically difficult to achieve.
Sustainable Aggregate Points	Wst 02-01	1	0	1	2. Identify all aggregate uses and types on the project Table 10.5, and Table 10.6 in the guidance manual.	C&S Engineer		
					3. Determine the quantity in tonnes for each identified use and aggregate type.			
					4. Identify the region in which the aggregate source is located.			
					5. Calculate the distance in kilometres travelled by all aggregates by transport type.			
					6. Enter the information into the BREEAM Wst 02 calculator to calculate the Project Sustainable Aggregate points. The corresponding number of BREEAM credits will be awarded (refer to Table 10.4 in the guidance manual).			
Exemplary Performance Criteria	Wst 02-Ex	1	0	1	To achieve an exemplary performance credit: 7. The Project Sustainable Aggregate Points score meets or exceeds the exemplary level performance benchmark in Table 10.4 of the guidance manual.	C&S Engineer		
Wst 03: Operational Waste								
Operational Waste	Wst 03-01	1	1		1. Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is: a. Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams b. Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors c. Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily/weekly operational activities and occupancy rates.	Architect		Mandatory for Excellent and Outstanding. Shared waste storage areas can be considered, however the recyclable waste storage area must be appropriately sized for all buildings being served. Where it is not possible to determine what provision should be made, use the following guide for minimum storage space provision: 1. At least 2m² per 1000m² of net floor area for buildings < 5000m² 2. A minimum of 10m² for buildings ≥ 5000m² 3. An additional 2m² per 1000m² of net floor area where catering is provided (with an additional minimum of 10m² for buildings ≥ 5000m²). The net floor area should be rounded up to the nearest 1000m².
					2. For consistent and large amounts of operational waste generated, provide: a. Static waste compactors or balers; situated in a service area or 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 and delivery to an alternative composting facility c. A water outlet provided adjacent to or within the facility for cleaning and hygiene purposes where organic waste is to be stored or composted on site.			

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Wst 05: Adaptation to Climate Change								
Resilience of Structure, Fabric, Building Services and Renewables Installation	Wst 05-01	1	1		1. Conduct a climate change adaptation strategy appraisal using: a. A systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. 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 v. Risk management.	Architect / C&S Engineer/ M&E Consultant	2	
					2. Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during concept design, that aim to mitigate the identified impact.			
					3. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor.	Architect / C&S Engineer/ M&E Consultant	4	
Exemplary Criteria	Wst 05-Ex	1	0	1	Achievement of the following criteria demonstrates a holistic approach to the design and construction of the building's life cycle to mitigate against the impacts of climate change. To achieve an exemplary level performance credit: 4. Meet criteria 1-3.	Design Team		
					5. Meet the criteria or achieve credits of the assessment issues given below: - Hea 04: Criterion 6 - Ene 01: Minimum 6 credits - Ene 04: Passive design credit - Wat 01: Minimum 3 credits - Mat 05: Criteria 2 - 4 - Pol 03: Minimum 1 credit for flood resilience and 2 credits under Surface Water Runoff			
Wst 06: Design for Disassembly and Adaptability								
Recommendations	Wst 06-01	1	1		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. 2. Develop recommendations or solutions based on the study during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation.	Architect / Structures	2	
Implementation	Wst 06-02	1	1		3. Achieve criteria 1 and 2. 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. Omissions have been justified in writing to the assessor. b. Changes to the recommendations and solutions during the development of the Technical Design,	Architect / Structures	4	
					5. Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.			

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
LAND USE AND ECOLOGY (1 credit = 1.00%)								
LE 01: Site Selection								
Previously Occupied Land	LE 01-01	1	1		1. At least 75% of the proposed development is on previously occupied land	Architect		
Contaminated Land	LE 01-02	1	0	1	2. A contaminated land professional undertakes a site investigation, risk assessment and appraisal, which deems that land within the development footprint to be affected by contamination. This report identifies: a. The degree of contamination b. The contaminant sources/types c. The options for remediating sources of contamination which present an unacceptable risk.	C&S Engineer		It is assumed that the site is not significantly contaminated. Contamination report to be provided to confirm.
					3. The client or principal contractor confirms that a remediation strategy will be implemented, in line with the report.			
LE 02: Ecological Risks and Opportunities								
Pre-Requisite (Statutory Obligations)	LE 02-Pre	-	-	-	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.	Client / Contractor		
Survey and Evaluation	LE 02-01	1	1		3. A Suitably Qualified Ecologist (SQE) 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).	Ecologist	1	
					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 site's ecological value and, where relevant, areas within the Zone of Influence.	Ecologist / Design Team		
					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.			

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Determining Ecological Outcomes	LE 02-02	1	1		6. Achieve the LE 02-01 "Survey and Evaluation" credit. 7. The project team liaise and collaborate with representative stakeholders early enough to influence key planning decisions (typically Concept Design stage), to: a. Identify the optimal ecological outcomes for the site. b. Identify, appraise and select measures to meet the optimal ecological outcomes for the site (criterion 7a), in line with the mitigation hierarchy of action: 1. Avoidance 2. Protection 3. Reduction or limitation of negative impacts 4. On site compensation and 5. Enhancement, considering the capacity and feasibility within the site, or where viable, offsite.	Ecologist / Design Team	2	
Exemplary Level Criteria	LE 02-Ex	1	0	1	To achieve one exemplary performance credit: Wider site sustainability 8. Achieve criteria 7 / LE02-02 above. 9. Wider sustainability related activities and potential ecosystem service benefits are considered as part of determining the optimal ecological outcomes for the site (criterion 7), including the areas outlined in the Methodology below. 10 Achieve the credits of the assessment issues outlined below: a. Hea 07 Safe and healthy surroundings - Both credits b. Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution' c. Pol 05 Reduction of noise pollution	Ecologist / Design Team		
LE 03: Managing Impacts on Ecology								
Pre-Requisite	LE 03-Pre	-	-	-	1. LE 02's 'Survey and evaluation and Determining ecological outcomes' criteria have been achieved.	Design Team		
Planning and Measures On-Site	LE 03-01	1	1		2. Further planning to avoid and manage negative ecological impacts on-site is carried out (see Methodology in guidance manual) early enough to influence the concept design and design brief as well as site preparation planning (typically Concept Design stage).	Design Team	1 or 2	
					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 in guidance manual).	Contractor		
					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).	Design Team		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Managing Negative Impacts of the Project	LE 03-02	2	2		7. Criteria 2-4 have been achieved. 8. Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations and, either: a. No overall loss of ecological value has occurred (two credits). OR where criterion 8.a is not possible: b. The loss of ecological value has been minimised (Minimising Loss) (one credit)	Ecologist / Contractor / Design Team		
LE 04: Ecological Change and Enhancement								
Pre- Requisite	LE 04-Pre	-	-	-	1. Criterion 8 in LE 03 has been achieved.	Design Team		
					2. The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.	Contractor / Client		
Change and Enhancement of Ecology	LE 04-01	3	3		4. 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.	Ecologist / Landscape Architect		The ES Tracker confirms at least 1 point is compulsory for MMU new build projects.
Ecological Enhancement	LE 04-02	1	1		5 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. Measures are implemented in the following order: a. On site, and where this is not feasible, b. Off site within the Zone of Influence.	Ecologist / Landscape Architect		
					6. Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.			
Exemplary Level Criteria	LE 04-EX	1	1		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. The credit is awarded as follows: a. Significant net gain of ecological value (percentage score of 110 or above)	Ecologist / Landscape Architect		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
LE 05: Long Term Ecological Management and Maintenance								
Pre-Requisite	LE 05-Pre	-	-	-	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. 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.			
Planning, Liaison, Data, Monitoring and Review Management and Maintenance	LE 05-01	1	1		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. 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.	Contractor / Design Team		
					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. 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.	Ecologist / Contractor / Design Team		
Landscape and Ecology Management Plan (or similar) development	LE 05-02	1	1		5. A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.1(213) 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 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).	Ecologist / Landscape Architect		
POLLUTION (1 credit = 0.67%)								
Pol 01: Impact of Refrigerants								
Impact of Refrigerant	Pol 01-01	2	0	2	Three credits - No refrigerant use 1. Where the building does not require the use of refrigerants within its installed plant/systems. OR alternatively, where the building does require the use of refrigerants, the three credits can be awarded as follows: Pre-requisite 2. All systems (with electric compressors) must comply with the requirements of BS EN 378:2016 (parts 2 and 3) and where refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice Two credits - Impact of refrigerant 3. Where the systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2e) of ≤ 100 kgCO2e/kW cooling/heating capacity. For systems which provide cooling and heating, the worst performing output based on the lower of kW cooling output and kW heating output is used to complete the calculation. OR 4. Where air-conditioning or refrigeration systems are installed the refrigerants used have a Global Warming Potential (GWP) ≤10. OR One credit - Impact of refrigerant 5. Where the systems using refrigerants have Direct Effect Life Cycle CO2equivalent emissions (DELC CO2e) of ≤ 1000 kgCO2e/kW cooling/heating capacity.	M&E Consultant		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Leak Detection	Pol 01-02	1	0	1	6. All systems are hermetically sealed or only use environmentally benign refrigerants. OR 7. Where the systems are not hermetically sealed: a. Systems have: i. A permanent automated refrigerant leak detection system, that is robust and tested, and capable of continuously monitoring for leaks. OR ii. An inbuilt automated diagnostic procedure for detecting leakage is enabled. 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 (see automatic isolation and containment of refrigerant).	M&E Consultant		
Pol 02: Local Air Quality								
Local Air Quality	Pol 02-01	2	2		1. All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity OR alternatively; 2. Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Table 12.4 and Table 12.5 in the guidance manual (assessor to provide). The measurements must be provided by manufacturers, following the labelling requirements of the European Directive 2009/125/EC. No credits can be awarded for Pol02 if any of the combustion appliances are not covered in Table 12.4 and Table 12.5 in the guidance manual. 3. Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in table 12.4 and 12.15 of the guidance manual.	M&E Consultant		WELL crosswalk: Both credits are required for issue A10.1 "Manage Combustion".
Pol 03: Flood and Surface Water Management								
Flood Resilience	Pol 03-01	2	1	1	1. An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria. Two credits - Low flood risk 2. A site-specific flood risk assessment (FRA) confirms that the development is in a flood zone that is defined as having low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration. One credit - Medium/high flood risk 3. 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. For smaller sites, refer to Level of detail required in the FRA for smaller sites which overrides criterion 2. 4. To increase the resilience of the development to flooding, one of the following must be achieved: 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 600mm above the design flood level of the site's flood zone. b. The final design of the building and wider site reflects the recommendations made by an appropriate consultant with the hierarchy approach outlined in section 5 of BS 8533:2017.	C&S Engineer		

Title	Credit Ref	Credits available	Route to Excellent (70% required) 81.95%	Potential credits 26.27%	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Surface Water Run-off (Rate)	Pol 03-Pre	-	-	-	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. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site.	C&S Engineer		
	Pol 03-02	1	1		6. For brownfield sites, 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.	C&S Engineer		
					7. For Greenfield sites, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events.			
					8. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place.	Client		
					9. Calculations include an allowance for climate change. This should be made in accordance with the current best practice planning guidance.	C&S Engineer		
Surface Water Run-off (Volume)	Pol 03-03	1	0	1	One credit - Surface Run-off - Volume 10. Flooding of property will not occur and in the event of local drainage system failure (caused by either extreme rainfall or a lack of maintenance); AND	C&S Engineer		This was not achieved on Science and Engineering. The RIBA Stage 2 drainage report suggests this will be investigated further in the next stages of design.
					EITHER 11. 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.			
					12. Any additional predicted volume run-off for this event is prevented from leaving the site by using infiltration or other SUDS techniques.			
					OR (only where criteria 10 and 11 for this credit cannot be achieved): 13. Justification from the appropriate consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other Suds techniques are not technically viable options.			
					14. Drainage design measures are specified so that that post-development peak run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options: a. the pre-development one-year peak flow rate b. The mean annual flow rate (Qbar) c 2L/s/ha.			
					For the one-year peak flow rate, the one-year return period event criterion applies. 15. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SUDs are in place.			
					16. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.			

Title	Credit Ref	Credits available	Route to Excellent (70% required)	Potential credits	Compliance Requirements	Responsibility (Design Stage)	RIBA Stage	Comments
Minimising Water Course Pollution	Pol 03-04	1	0	1	17. There is no discharge from the developed site for rainfall up to 5mm (confirmed by the Appropriate Consultant). 18. Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate Suds techniques. 19. Areas with a high risk of contamination of spillage of substances, such as petrol and oil have separators (or an equivalent system) are installed in surface water drainage systems. 20. Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system (i.e. shut-off valves). This is to prevent the escape of chemicals to natural watercourses in the event of spillage or bunding failure. 21. All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as the Suds manual and other relevant industry best practice. They must be bespoke solutions taking account of the specific site requirements and natural or man-made environment of and surrounding the site. 22. A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers. 23. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Suds must be in place.	C&S Engineer		Criterion 17 can be difficult to achieve.
Pol 04: Reduction of Night Time Light Pollution								
Reduction of Night Time Light Pollution	Pol 04-01	1	1		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 alternatively, where the building does have external lighting one credit can be awarded as follows: 2. The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (LP) Guidance notes for the reduction of obtrusive light, 2011. 3. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00 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. 5. Illuminated advertisements are designed in compliance with IPL PLG05 The Brightness of Illuminated Advertisement.	M&E Consultant		
Pol 05: Reduction of noise pollution								
Reduction of Noise Pollution	Pol 05-01	1	1		1. There are no noise-sensitive areas within the assessed building or within 800m radius of the assessed site. OR 2. Where there are noise-sensitive areas within the assessed building or noise-sensitive areas within 800m radius of the assessed site, a noise impact assessment compliant with BS4142:2014 is commissioned. Noise levels must be measured or determined for: a. Existing background noise levels: i. at the nearest or most exposed noise-sensitive development to the proposed assessed site. ii. Including existing plant on a building, where the assessed development is an extension to the building. b. Noise rating level from the assessed building 3. The noise impact assessment must be carried out by a suitably qualified acoustic consultant. 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. 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.	Acoustician		
						Contractor		

Appendix 3: WELL Building Standard Checklist

THE WELL BUILDING STANDARD™

Project Name: #202265204-Manchester Metropolitan University Library

Enrollment Type: WELL Certification

Applicable Version: WELL v2, Q3 2022

Anticipated Milestone: Gold

Projected Point Total: 58 + 6(Innovation)

Estimated date of document submission: 12 Oct, 2027

Date: 27 Jul, 2023

OPTIMIZATIONS

49 YES
28% 111 MAYBE
15 NO

PRECONDITIONS

48 YES
100% 0 MAYBE
0 NO

AIR6 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	A01.1	Meet Thresholds for Particulate Matter
P			Required	A01.2	Meet Thresholds for Organic Gases
P			Required	A01.3	Meet Thresholds for Inorganic Gases
P			Required	A01.4	Meet Thresholds for Radon
P			Required	A01.5	Measure Air Parameters
P			Required	A02.1	Prohibit Indoor Smoking
P			Required	A02.2	Prohibit Outdoor Smoking
P			Required	A03.1	Ensure Adequate Ventilation
P			Required	A04.1	Mitigate Construction Pollution
	2		2 points	A05.1	Meet Enhanced Thresholds for Particulate Matter
	1		1 point	A05.2	Meet Enhanced Thresholds for Organic Gases
	1		1 point	A05.3	Meet Enhanced Thresholds for Inorganic Gases
		N	2 points	A06.1	Increase Outdoor Air Supply
		N	1 point	A06.2	Improve Ventilation Effectiveness
	1		1 point	A07.1	Provide Operable Windows
	1		1 point	A07.2	Manage Window Use
	1		1 point	A08.1	Install Indoor Air Monitors
	1		1 point	A08.2	Promote Air Quality Awareness
1			1 point	A09.1	Design Healthy Entryways
1			1 point	A09.2	Perform Envelope Commissioning
1			1 point	A10.1	Manage Combustion
		N	1 point	A11.1	Manage Pollution and Exhaust
			1 point	A12.1	Implement Particle Filtration
1			1 point	A13.1	Improve Supply Air
1			1 point	A14.1	Implement Ultraviolet Treatment for HVAC Surfaces

WATER9 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	W01.1	Verify Water Quality Indicators
P			Required	W02.1	Meet Chemical Thresholds
P			Required	W02.2	Meet Thresholds for Organics and Pesticides
P			Required	W03.1	Monitor Chemical and Biological Water Quality
P			Required	W03.2	Implement Legionella Management Plan
1			1 point	W04.1	Meet Thresholds for Drinking Water Taste
2			2 points	W05.1	Assess and Maintain Drinking Water Quality
1			1 point	W05.2	Promote Drinking Water Transparency
1			1 point	W06.1	Ensure Drinking Water Access
1			1 point	W07.1	Design Envelope for Moisture Protection
1			1 point	W07.2	Design Interiors for Moisture Management
1			1 point	W07.3	Implement Mold and Moisture Management Plan
	1		1 point	W08.1	Provide Bathroom Accommodations
	1		1 point	W08.2	Enhance Bathroom Accommodations
	1		1 point	W08.3	Support Effective Handwashing
1			1 point	W08.4	Provide Handwashing Supplies and Signage
		N	2 points	W09.1	Implement Safety Plan for Non-Potable Water Capture and Reuse

NOURISHMENT7 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	N01.1	Provide Fruits and Vegetables
P			Required	N01.2	Promote Fruit and Vegetable Visibility
P			Required	N02.1	Provide Nutritional Information
P			Required	N02.2	Address Food Allergens
P			Required	N02.3	Label Sugar Content
	1		1 point	N03.1	Limit Total Sugars
	1		1 point	N03.2	Promote Whole Grains
1			1 point	N04.1	Optimize Food Advertising
	1		1 point	N05.1	Limit Artificial Ingredients
	1		1 point	N06.1	Promote Healthy Portions
	1		1 point	N07.1	Provide Nutrition Education
2			2 points	N08.1	Support Mindful Eating
1			1 point	N09.1	Accommodate Special Diets
1			1 point	N09.2	Label Food Allergens
1			1 point	N10.1	Provide Meal Support
	1		1 point	N11.1	Implement Responsible Sourcing
		N	2 points	N12.1	Provide Gardening Space
1			1 point	N13.1	Ensure Local Food Access
	1		1 point	N14.1	Limit Red and Processed Meats

LIGHT7 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	L01.1	Provide Indoor Light
P			Required	L02.1	Provide Visual Acuity
	3		3 points	L03.1	Meet Lighting for Day-Active People
2			2 points	L04.1	Manage Glare from Electric Lighting
	2		2 points	L05.1	Implement Daylight Plan
1			2 points	L05.2	Integrate Solar Shading
	2		2 points	L06.1	Conduct Daylight Simulation
1			1 point	L07.1	Balance Visual Lighting
1			1 point	L08.1	Enhance Color Rendering Quality
2			2 points	L08.2	Manage Flicker
	2		2 points	L09.1	Enhance Occupant Controllability
		N	1 point	L09.2	Provide Supplemental Lighting

MOVEMENT7 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	V01.1	Design Active Buildings and Communities
P			Required	V02.1	Support Visual Ergonomics
P			Required	V02.2	Provide Height-Adjustable Work Surfaces
P			Required	V02.3	Provide Chair Adjustability
P			Required	V02.4	Provide Support at Standing Workstations
P			Required	V02.5	Provide Workstation Orientation
		N	1 point	V03.1	Design Aesthetic Staircases
		N	1 point	V03.2	Integrate Point-of-Decision Signage
		N	1 point	V03.3	Promote Visible Stairs
	2		2 points	V04.1	Provide Cycling Infrastructure
	1		1 point	V04.2	Provide Showers, Lockers and Changing Facilities
2			2 points	V05.1	Select Sites with Pedestrian-friendly Streets
2			2 points	V05.2	Select Sites with Access to Mass Transit
2			2 points	V06.1	Offer Physical Activity Opportunities
	2		2 points	V07.1	Provide Active Workstations
	1		1 point	V08.1	Provide Indoor Activity Spaces
1			1 point	V08.2	Provide Outdoor Physical Activity Space
		N	1 point	V09.1	Offer Physical Activity Incentives
		N	1 point	V10.1	Provide Self-Monitoring Tools
	1		1 point	V11.1	Implement an Ergonomics Program
	1		1 point	V11.2	Commit to Ergonomic Improvements
	1		1 point	V11.3	Support Remote Work Ergonomics

THERMAL COMFORT2 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	T01.1	Provide Acceptable Thermal Environment
P			Required	T01.2	Measure Thermal Parameters
	3		3 points	T02.1	Survey for Thermal Comfort
1			2 points	T03.1	Provide Thermostat Control
	1		1 point	T04.1	Provide Personal Cooling Options
	1		1 point	T04.2	Provide Personal Heating Options
1			1 point	T04.3	Allow Flexible Dress Code
	1		1 point	T05.1	Implement Radiant Heating
	1		1 point	T05.2	Implement Radiant Cooling
	1		1 point	T06.1	Monitor Thermal Environment
	1		1 point	T07.1	Manage Relative Humidity
	1		1 point	T08.1	Provide Windows with Multiple Opening Modes
	1		1 point	T09.1	Manage Outdoor Heat
	1		1 point	T09.2	Avoid Excessive Wind
	1		1 point	T09.3	Support Outdoor Nature Access

SOUND5 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	S01.1	Label Acoustic Zones
P			Required	S01.2	Provide Acoustic Design Plan
1			3 points	S02.1	Limit Background Noise Levels
1			1 point	S03.1	Design for Sound Isolation at Walls and Doors
2			2 points	S03.2	Achieve Sound Isolation at Walls
	2		2 points	S04.1	Achieve Reverberation Time Thresholds
		N	2 points	S05.1	Implement Sound Reducing Surfaces
	1		1 point	S06.1	Provide Minimum Background Sound
		N	1 point	S06.2	Provide Enhanced Speech Reduction
1			1 point	S07.1	Specify Impact Noise Reducing Flooring
	2		2 points	S07.2	Meet Thresholds for Impact Noise Rating
	1		1 point	S08.1	Provide Enhanced Speech Intelligibility
	1		1 point	S08.2	Prioritize Audio Devices and Policies
	1		1 point	S09.1	Implement a Hearing Health Conservation Program

MATERIALS8 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	X01.1	Restrict Asbestos
P			Required	X01.2	Restrict Mercury
P			Required	X01.3	Restrict Lead
P			Required	X02.1	Manage Asbestos Hazards
P			Required	X02.2	Manage Lead Paint Hazards
P			Required	X02.3	Manage Polychlorinated Biphenyl (PCB) Hazards
P			Required	X03.1	Manage Exterior CCA Hazards
P			Required	X03.2	Manage Lead Hazards
	1		1 point	X04.1	Assess and Mitigate Site Hazards
1			1 point	X05.1	Select Compliant Interior Furnishings
1			1 point	X05.2	Select Compliant Architectural and Interior Products
2			2 points	X06.1	Limit VOCs from Wet-Applied Products
2			2 points	X06.2	Restrict VOC Emissions from Furniture, Architectural and Interior Products
	1		1 point	X07.1	Select Products with Disclosed Ingredients
	1		1 point	X07.2	Select Products with Enhanced Ingredient Disclosure
	1		1 point	X07.3	Select Products with Third-Party Verified Ingredients
	1		1 point	X08.1	Select Materials with Enhanced Chemical Restrictions
	1		1 point	X08.2	Select Optimized Products
1			1 point	X09.1	Implement a Waste Management Plan
1			1 point	X10.1	Manage Pests
	1		1 point	X11.1	Improve Cleaning Practices
	1		1 point	X11.2	Select Preferred Cleaning Products
	1		1 point	X12.1	Reduce Respiratory Particle Exposure
	1		1 point	X12.2	Address Surface Hand Touch

MIND4 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	M01.1	Promote Mental Health and Well-being
P			Required	M02.1	Provide Connection to Nature
P			Required	M02.2	Provide Connection to Place
1			1 point	M03.1	Offer Mental Health Screening
	1		1 point	M03.2	Offer Mental Health Services
	1		1 point	M03.3	Offer Workplace Support
	1		1 point	M03.4	β Support Mental Health Recovery
1			1 point	M04.1	Offer Mental Health Education
1			1 point	M04.2	Offer Mental Health Education for Managers
	1		2 points	M05.1	Develop Stress Management Plan
1			1 point	M06.1	Support Healthy Working Hours
	1		1 point	M06.2	Provide Nap Policy and Space
	1		1 point	M07.1	Provide Restorative Space
	1		1 point	M08.1	Provide Restorative Programming
	1		1 point	M09.1	Provide Nature Access Indoors
	1		1 point	M09.2	Provide Nature Access Outdoors
	2		2 points	M10.1	Provide Tobacco Cessation Resources
	1		1 point	M11.1	Offer Substance Use Education
		N	1 point	M11.2	Provide Substance Use and Addiction Services

COMMUNITY3 POINTS					
Y	?	N	Weight	ID	Part Name
P			Required	C01.1	Provide WELL Feature Guide
P			Required	C02.1	Facilitate Stakeholder Charrette
P			Required	C02.2	Promote Health-Oriented Mission
P			Required	C03.1	Develop Emergency Preparedness Plan
P			Required	C04.1	Select Project Survey
P			Required	C04.2	Administer Survey and Report Results
	1		1 point	C05.1	Utilize Enhanced Survey
	1		1 point	C05.2	Utilize Pre- and Post-Occupancy Survey
	1		1 point	C05.3	Implement Action Plan
	1		1 point	C05.4	Facilitate Interviews, Focus Groups and/or Observation
	1		1 point	C06.1	Promote Health Benefits
	1		1 point	C06.2	Offer On-Demand Health Services
	1		1 point	C06.3	Offer Sick Leave
	1		1 point	C06.4	Support Community Immunity
	1		1 point	C06.5	β Provide Enhanced Health Benefits
	1		1 point	C07.1	Promote Culture of Health
	1		1 point	C07.2	Establish Health Promotion Leader
	3		3 points	C08.1	Offer New Parent Leave
	1		1 point	C09.1	Offer Workplace Breastfeeding Support
	2		2 points	C09.2	Design Lactation Room
	1		1 point	C10.1	Offer Childcare Support
		N	1 point	C10.2	Offer Family Leave
	1		1 point	C10.3	Offer Bereavement Support
	1		1 point	C11.1	Promote Community Engagement
1			1 point	C11.2	Provide Community Space
	3		3 points	C12.1	Promote Diversity and Inclusion
2			2 points	C13.1	Integrate Universal Design
	1		1 point	C14.1	Promote Emergency Resources
	1		1 point	C14.2	Provide Opioid Response Kit and Training
	1		1 point	C15.1	Promote Business Continuity
	1		1 point	C15.2	Support Emergency Resilience
	1		1 point	C15.3	Facilitate Healthy Re-entry
	1		1 point	C15.4	Establish Health Entry Requirements
	1		1 point	C17.1	Disclose Labor Practices
	2		2 points	C17.2	Implement Responsible Labor Practices
	2		2 points	C18.1	Support Victims of Domestic Violence
	2		2 points	C19.1	Establish Education and Support
	1		1 point	C20.1	Provide Historical Acknowledgement

INNOVATION6 POINTS					
Y	?	N	Weight	ID	Part Name
	1		1 point	I01.1	Propose Innovation
	1		1 point	I01.2	Propose Innovation
	1		1 point	I01.3	Propose Innovation
	1		1 point	I01.4	Propose Innovation
	1		1 point	I01.5	Propose Innovation
	1		1 point	I01.6	Propose Innovation
	1		1 point	I01.7	Propose Innovation
	1		1 point	I01.8	Propose Innovation
	1		1 point	I01.9	Propose Innovation
	1		1 point	I01.10	Propose Innovation
1			1 point	I02.1	Achieve WELL AP
	1		1 point	I03.1	Offer WELL Educational Tours
	1		1 point	I04.1	Complete Health and Well-Being Programs
5			5 points	I05.1	Achieve Green Building Certification
	2		2 points	I06.1	Carbon Inventory
	3		3 points	I06.2	Carbon Reduction Goal
	3		3 points	I06.3	Carbon Reduction
	2		2 points	I06.4	Carbon Neutral

Targeting?	ID	Points attempted	Feature	Part	Space Types	Option Selected? (If applicable)	Verification Method #1 (based on option selected)	Verification Method #2 (based on option selected)
YES	A01.1	Required	Air Quality	Meet Thresholds for Particulate Matter	All Spaces except Commercial Kitchen Spaces & Industrial	Acceptable thresholds	Performance Test OR Sensor Data	
					Commercial Kitchen Spaces & Industrial	Acceptable thresholds	Performance Test OR Sensor Data	
YES	A01.2	Required	Air Quality	Meet Thresholds for Organic Gases	All Spaces	Laboratory-based VOC tests	Performance Test	
YES	A01.3	Required	Air Quality	Meet Thresholds for Inorganic Gases	All Spaces except Commercial Kitchen Spaces & Industrial		Performance Test OR Sensor Data	
					Commercial Kitchen Spaces & Industrial		Performance Test OR Sensor Data	
YES	A01.4	Required	Air Quality	Meet Thresholds for Radon	All Spaces	Radon testing	Sensor Data	Technical Document (Individual)
YES	A01.5	Required	Air Quality	Measure Air Parameters	All Spaces except Dwelling Units		On-going Data Report	
YES	A02.1	Required	Smoke-Free Environment	Prohibit Indoor Smoking	All Spaces		Policy and/or Operations Schedule	
YES	A02.2	Required	Smoke-Free Environment	Prohibit Outdoor Smoking	All Spaces	No smoking signage	On-site Photographs	Letter of Assurance – Owner
YES	A03.1	Required	Ventilation Design	Ensure Adequate Ventilation	All Spaces	Mechanically ventilated spaces	Letter of Assurance – Engineer	
YES	A04.1	Required	Construction Pollution Management	Mitigate Construction Pollution	All Spaces		Letter of Assurance – Contractor	
MAYBE	A05.1		Enhanced Air Quality	Meet Enhanced Thresholds for Particulate Matter	All Spaces		Performance Test OR Sensor Data	
MAYBE	A05.2		Enhanced Air Quality	Meet Enhanced Thresholds for Organic Gases	All Spaces		Performance Test	
MAYBE	A05.3		Enhanced Air Quality	Meet Enhanced Thresholds for Inorganic Gases	All Spaces		Performance Test OR Sensor Data	
NO	A06.1		Enhanced Ventilation Design	Increase Outdoor Air Supply	All Spaces	Increased air supply	Letter of Assurance – Engineer	
NO	A06.2		Enhanced Ventilation Design	Improve Ventilation Effectiveness	All Spaces	Displacement ventilation system	Letter of Assurance – Engineer	
MAYBE	A07.1		Operable Windows	Provide Operable Windows	All Spaces		On-site Photographs	Letter of Assurance – Designer
MAYBE	A07.2		Operable Windows	Manage Window Use	All Spaces	Outdoor air measurement	Professional Narrative	
						Window operation	On-site Photographs	Letter of Assurance – Engineer
MAYBE	A08.1		Air Quality Monitoring and Awareness	Install Indoor Air Monitors	All Spaces except Dwelling Units	Sensor requirements	On-site Photographs	Letter of Assurance – Engineer
						Reporting & maintenance	On-going Data Report	
MAYBE	A08.2		Air Quality Monitoring and Awareness	Promote Air Quality Awareness	All Spaces except Dwelling Units		On-site Photographs	Letter of Assurance – Owner
YES	A09.1		Pollution Infiltration Management	Design Healthy Entryways	All Spaces	Building entry design	On-site Photographs	Letter of Assurance – Designer
						Building entry maintenance	Policy and/or Operations Schedule	
YES	A09.2		Pollution Infiltration Management	Perform Envelope Commissioning	All Spaces		Technical Document (Audited)	
YES	A10.1		Combustion Minimization	Manage Combustion	All Spaces except Commercial Kitchen Spaces	Appliance and heater combustion ban	On-site Photographs	Letter of Assurance – Owner
						Low-emission combustion sources	Letter of Assurance – Engineer	
						Engine exhaust reduction	On-site Photographs	Letter of Assurance – Owner
NO	A11.1		Source Separation	Manage Pollution and Exhaust	All Spaces except Dwelling Units		Technical Document (Audited)	
					Commercial Kitchen Spaces		On-site Photographs	Letter of Assurance – Engineer
YES	A12.1		Air Filtration	Implement Particle Filtration	All Spaces	Filtration levels	On-site Photographs	Letter of Assurance – Engineer
						Filter maintenance	On-going Maintenance Report	
YES	A13.1		Enhanced Supply Air	Improve Supply Air	All Spaces	100% Outdoor air provisions	Technical Document (Audited)	
YES	A14.1		Microbe and Mold Control	Implement Ultraviolet Treatment for HVAC Surfaces	All Spaces	UV system design	On-site Photographs	Letter of Assurance – Engineer
						UV system maintenance and inspection	On-going Maintenance Report	
YES	W01.1	Required	Water Quality Indicators	Verify Water Quality Indicators	All Spaces		Performance Test	
YES	W02.1	Required	Drinking Water Quality	Meet Chemical Thresholds	All Spaces		Performance Test	
YES	W02.2	Required	Drinking Water Quality	Meet Thresholds for Organics and Pesticides	All Spaces	Drinking water quality report	Technical Document (Individual)	
YES	W03.1	Required	Basic Water Management	Monitor Chemical and Biological Water Quality	All Spaces except Dwelling Units	Drinking water quality report	On-going Data Report	
YES	W03.2	Required	Basic Water Management	Implement Legionella Management Plan	All Spaces	Legionella plan development	Technical Document (Audited)	
						Legionella plan implementation	On-going Maintenance Report	
YES	W04.1		Enhanced Water Quality	Meet Thresholds for Drinking Water Taste	All Spaces		Performance Test	
YES	W05.1		Drinking Water Quality Management	Assess and Maintain Drinking Water Quality	All Spaces	Water quality pre-test	Technical Document (Individual)	
						Water quality monitoring	On-going Data Report	
YES	W05.2		Drinking Water Quality Management	Promote Drinking Water Transparency	All Spaces		Policy and/or Operations Schedule	
YES	W06.1		Drinking Water Promotion	Ensure Drinking Water Access	All Spaces except Dwelling Units	Dispenser availability	Technical Document (Audited)	
						Dispenser maintenance	Policy and/or Operations Schedule	
YES	W07.1		Moisture Management	Design Envelope for Moisture Protection	All Spaces		Professional Narrative	
YES	W07.2		Moisture Management	Design Interiors for Moisture Management	All Spaces	Condensation and liquid water management	Professional Narrative	
						Water leak control in fixtures	On-site Photographs	Letter of Assurance – Engineer
YES	W07.3		Moisture Management	Implement Mold and Moisture Management Plan	All Spaces	Operational moisture management	Policy and/or Operations Schedule	
						Leaks and mold inspections	On-going Maintenance Report	
MAYBE	W08.1		Hygiene Support	Provide Bathroom Accommodations	All Spaces except Dwelling Units	Bathroom Accommodations	On-site Photographs	Letter of Assurance – Designer
						Family bathrooms	On-site Photographs	Letter of Assurance – Designer
MAYBE	W08.2		Hygiene Support	Enhance Bathroom Accommodations	All Spaces except Dwelling Units		On-site Photographs	Letter of Assurance – Designer
MAYBE	W08.3		Hygiene Support	Support Effective Handwashing	All Spaces		On-site Photographs	Letter of Assurance – Designer
YES	W08.4		Hygiene Support	Provide Handwashing Supplies and Signage	All Spaces except Dwelling Units	Handwashing support	Policy and/or Operations Schedule	
					Commercial Kitchen Spaces & Commercial Dining Spaces	de Handwashing Signage in Commercial Kitc	On-site Photographs	Letter of Assurance – Owner

Targeting?	ID	Points attempted	Feature	Part	Space Types	Option Selected? (If applicable)	Verification Method #1 (based on option selected)	Verification Method #2 (based on option selected)
NO	W09.1		β Onsite Non-Potable Water Reuse	Implement Safety Plan for Non-Potable Water Capture and Reuse	All Spaces		On-site Photographs	Professional Narrative
YES	N01.1	Required	Fruits and Vegetables	Provide Fruits and Vegetables	All Spaces except Commercial Dining Spaces	Food offerings	Policy and/or Operations Schedule	
					Commercial Dining Spaces		Policy and/or Operations Schedule	
YES	N01.2	Required	Fruits and Vegetables	Promote Fruit and Vegetable Visibility	All Spaces	Food offerings	On-site Photographs	Letter of Assurance – Owner
					Commercial Dining Spaces	Healthy menu design	On-site Photographs	Letter of Assurance – Owner
YES	N02.1	Required	Nutritional Transparency	Provide Nutritional Information	All Spaces	Food offerings	On-site Photographs	Letter of Assurance – Owner
					Commercial Dining Spaces		On-site Photographs	Letter of Assurance – Owner
YES	N02.2	Required	Nutritional Transparency	Address Food Allergens	Commercial Dining Spaces	Food allergy training	Policy and/or Operations Schedule	
						Food allergy signage	On-site Photographs	Letter of Assurance – Owner
YES	N02.3	Required	Nutritional Transparency	Label Sugar Content	Commercial Dining Spaces		On-site Photographs	Letter of Assurance – Owner
MAYBE	N03.1		Refined Ingredients	Limit Total Sugars	All Spaces		Policy and/or Operations Schedule	
MAYBE	N03.2		Refined Ingredients	Promote Whole Grains	All Spaces		Policy and/or Operations Schedule	
YES	N04.1		Food Advertising	Optimize Food Advertising	All Spaces	Food advertising	On-site Photographs	Letter of Assurance – Owner
						Nutritional messaging	On-site Photographs	Letter of Assurance – Owner
MAYBE	N05.1		Artificial Ingredients	Limit Artificial Ingredients	All Spaces	Artificial ingredient phase out	Policy and/or Operations Schedule	
MAYBE	N06.1		Portion Sizes	Promote Healthy Portions	Commercial Dining Spaces		On-site Photographs	Letter of Assurance – Owner
MAYBE	N07.1		Nutrition Education	Provide Nutrition Education	All Spaces		Policy and/or Operations Schedule	
YES	N08.1		Mindful Eating	Support Mindful Eating	All Spaces except Dwelling Units	Dedicated eating space	Technical Document (Audited)	
						Daily meal breaks	Policy and/or Operations Schedule	
YES	N09.1		Special Diets	Accommodate Special Diets	All Spaces		Policy and/or Operations Schedule	
YES	N09.2		Special Diets	Label Food Allergens	All Spaces		On-site Photographs	Letter of Assurance – Owner
YES	N10.1		Food Preparation	Provide Meal Support	All Spaces except Dwelling Units & Commercial Kitchen Spaces		On-site Photographs	Letter of Assurance – Owner
					Commercial Kitchen Spaces		On-site Photographs	Letter of Assurance – Owner
MAYBE	N11.1		Responsible Food Sourcing	Implement Responsible Sourcing	All Spaces	Sustainable sourcing	Policy and/or Operations Schedule	
						Sustainable labeling	On-site Photographs	Letter of Assurance – Owner
NO	N12.1		Food Production	Provide Gardening Space	All Spaces except Dwelling Units		Technical Document (Audited)	
YES	N13.1		Local Food Environment	Ensure Local Food Access	All Spaces	Supportive environment	Technical Document (Audited)	
MAYBE	N14.1		β Red and Processed Meats	Limit Red and Processed Meats	Commercial Dining Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
YES	L01.1	Required	Light Exposure	Provide Indoor Light	All Spaces except Dwelling Units	Interior layout	Technical Document (Audited)	
YES	L02.1	Required	Visual Lighting Design	Provide Visual Acuity	All Spaces except Dwelling Units	Visual lighting design	Performance Test	Technical Document (Individual)
MAYBE	L03.1		Circadian Lighting Design	Meet Lighting for Day-Active People	All Spaces except Dwelling Units		Performance Test	
YES	L04.1		Electric Light Glare Control	Manage Glare from Electric Lighting	All Spaces except Industrial	Luminaire considerations	Technical Document (Audited)	
MAYBE	L05.1		Daylight Design Strategies	Implement Daylight Plan	All Spaces except Dwelling Units		Technical Document (Audited)	
YES	L05.2		Daylight Design Strategies	Integrate Solar Shading	All Spaces except Dwelling Units		On-site Photographs	Policy and/or Operations Schedule
MAYBE	L06.1		Daylight Simulation	Conduct Daylight Simulation	All Spaces except Dwelling Units		Technical Document (Audited)	
YES	L07.1		Visual Balance	Balance Visual Lighting	All Spaces	Parameters for visual balance	Professional Narrative	
YES	L08.1		Electric Light Quality	Enhance Color Rendering Quality	All Spaces except Circulation Areas		Technical Document (Audited)	
					Circulation Areas		Technical Document (Audited)	
YES	L08.2		Electric Light Quality	Manage Flicker	All Spaces		Technical Document (Audited)	
MAYBE	L09.1		Occupant Lighting Control	Enhance Occupant Controllability	All Spaces	Lighting zones	Technical Document (Audited)	
						Lighting control system	Professional Narrative	
NO	L09.2		Occupant Lighting Control	Provide Supplemental Lighting	All Spaces except Dwelling Units	Supplemental lighting availability	Policy and/or Operations Schedule	
						Supplemental lighting requirements	Technical Document (Audited)	
YES	V01.1	Required	Active Buildings and Communities	Design Active Buildings and Communities	All Spaces		WELL Strategy	
YES	V02.1	Required	Ergonomic Workstation Design	Support Visual Ergonomics	Office Spaces		On-site Photographs	Letter of Assurance – Owner
YES	V02.2	Required	Ergonomic Workstation Design	Provide Height-Adjustable Work Surfaces	Office Spaces		On-site Photographs	Letter of Assurance – Owner
YES	V02.3	Required	Ergonomic Workstation Design	Provide Chair Adjustability	Office Spaces		On-site Photographs	Letter of Assurance – Owner
YES	V02.4	Required	Ergonomic Workstation Design	Provide Support at Standing Workstations	All Spaces	Support for standing workers	On-site Photographs	Letter of Assurance – Owner
YES	V02.5	Required	Ergonomic Workstation Design	Provide Workstation Orientation	All Spaces		Policy and/or Operations Schedule	
NO	V03.1		Circulation Network	Design Aesthetic Staircases	All Spaces		On-site Photographs	Letter of Assurance – Owner
NO	V03.2		Circulation Network	Integrate Point-of-Decision Signage	All Spaces		On-site Photographs	Letter of Assurance – Owner
NO	V03.3		Circulation Network	Promote Visible Stairs	All Spaces		Technical Document (Audited)	
MAYBE	V04.1		Facilities for Active Occupants	Provide Cycling Infrastructure	All Spaces except Dwelling Units & Retail Spaces	Cycling network	Technical Document (Audited)	
						Bike parking	On-site Photographs	Letter of Assurance – Designer
MAYBE	V04.2		Facilities for Active Occupants	Provide Showers, Lockers and Changing Facilities	All Spaces except Dwelling Units		Technical Document (Audited)	
YES	V05.1		Site Planning and Selection	Select Sites with Pedestrian-friendly Streets	All Spaces	Pedestrian-friendly streets	Technical Document (Audited)	
						Pedestrian-friendly environment	Technical Document (Audited)	
YES	V05.2		Site Planning and Selection	Select Sites with Access to Mass Transit	All Spaces		Technical Document (Audited)	
YES	V06.1		Physical Activity Opportunities	Offer Physical Activity Opportunities	All Spaces		Policy and/or Operations Schedule	
MAYBE	V07.1		Active Furnishings	Provide Active Workstations	Office Spaces		Letter of Assurance – Owner	On-site Photographs
MAYBE	V08.1		Physical Activity Spaces and Equipment	Provide Indoor Activity Spaces	All Spaces	On-site physical activity spaces	Technical Document (Audited)	
YES	V08.2		Physical Activity Spaces and Equipment	Provide Outdoor Physical Activity Space	All Spaces		Technical Document (Audited)	

Targeting?	ID	Points attempted	Feature	Part	Space Types	Option Selected? (If applicable)	Verification Method #1 (based on option selected)	Verification Method #2 (based on option selected)
NO	V09.1		Physical Activity Promotion	Offer Physical Activity Incentives	All Spaces	Incentives for eligible employees	Policy and/or Operations Schedule	
						Employee utilization of incentive programs	On-going Data Report	
						Physical activity for students	Professional Narrative	
NO	V10.1		Self-Monitoring	Provide Self-Monitoring Tools	All Spaces		Policy and/or Operations Schedule	
MAYBE	V11.1		β Ergonomics Programming	Implement an Ergonomics Program	All Spaces	Professional ergonomics support	Policy and/or Operations Schedule	Beta Feature Feedback Form
						Ergonomics programming	Policy and/or Operations Schedule	
MAYBE	V11.2		β Ergonomics Programming	Commit to Ergonomic Improvements	All Spaces	Informed Ergonomic Design	Professional Narrative	Beta Feature Feedback Form
MAYBE	V11.3		β Ergonomics Programming	Support Remote Work Ergonomics	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
YES	T01.1	Required	Thermal Performance	Provide Acceptable Thermal Environment	All Spaces except Commercial Kitchen Spaces	Performance verified environmental condition:	Letter of Assurance – Engineer	
					Commercial Kitchen Spaces		Performance Test OR Sensor Data	
YES	T01.2	Required	Thermal Performance	Measure Thermal Parameters	All Spaces except Dwelling Units	Annual testing	On-going Report	
MAYBE	T02.1		Verified Thermal Comfort	Survey for Thermal Comfort	All Spaces		Technical Document (Individual)	
YES	T03.1		Thermal Zoning	Provide Thermostat Control	All Spaces		Technical Document (Audited)	
MAYBE	T04.1		Individual Thermal Control	Provide Personal Cooling Options	All Spaces except Dwelling Units		On-site Photographs	Letter of Assurance – Engineer
MAYBE	T04.2		Individual Thermal Control	Provide Personal Heating Options	All Spaces except Commercial Kitchen Spaces & Dwelling Units		On-site Photographs	Letter of Assurance – Engineer
YES	T04.3		Individual Thermal Control	Allow Flexible Dress Code	All Spaces except Commercial Kitchen Spaces & Dwelling Units		Policy and/or Operations Schedule	
MAYBE	T05.1		Radiant Thermal Comfort	Implement Radiant Heating	All Spaces		Technical Document (Audited)	
MAYBE	T05.2		Radiant Thermal Comfort	Implement Radiant Cooling	All Spaces		Technical Document (Audited)	
MAYBE	T06.1		Thermal Comfort Monitoring	Monitor Thermal Environment	All Spaces except Dwelling Units	Thermal comfort monitors	On-site Photographs	Letter of Assurance – Engineer
						Reporting & maintenance	On-going Data Report	
MAYBE	T07.1		Humidity Control	Manage Relative Humidity	All Spaces	Mechanical humidity control	Letter of Assurance – Engineer	Performance Test
MAYBE	T08.1		β Enhanced Operable Windows	Provide Windows with Multiple Opening Modes	All Spaces	Window design	Letter of Assurance – Designer	On-site Photographs
						Window operation	Professional Narrative	
MAYBE	T09.1		β Outdoor Thermal Comfort	Manage Outdoor Heat	All Spaces	Outdoor shading	Technical Document (Audited)	Beta Feature Feedback Form
MAYBE	T09.2		β Outdoor Thermal Comfort	Avoid Excessive Wind	All Spaces		Technical Document (Audited)	Beta Feature Feedback Form
MAYBE	T09.3		β Outdoor Thermal Comfort	Support Outdoor Nature Access	All Spaces		Beta Feature Feedback Form	
YES	S01.1	Required	Sound Mapping	Label Acoustic Zones	All Spaces		Technical Document (Audited)	
YES	S01.2	Required	Sound Mapping	Provide Acoustic Design Plan	All Spaces		Professional Narrative	
YES	S02.1		Maximum Noise Levels	Limit Background Noise Levels	All Spaces except Dwelling Units		Performance Test	
YES	S03.1		Sound Barriers	Design for Sound Isolation at Walls and Doors	All Spaces		Technical Document (Audited)	
YES	S03.2		Sound Barriers	Achieve Sound Isolation at Walls	All Spaces	Noise isolation class	Performance Test	
MAYBE	S04.1		Reverberation Time	Achieve Reverberation Time Thresholds	All Spaces except Dwelling Units	Reverberation time, design	Technical Document (Audited)	
NO	S05.1		Sound Reducing Surfaces	Implement Sound Reducing Surfaces	All Spaces except Dwelling Units		Technical Document (Audited)	
MAYBE	S06.1		Minimum Background Sound	Provide Minimum Background Sound	Office Spaces		Technical Document (Audited)	
NO	S06.2		Minimum Background Sound	Provide Enhanced Speech Reduction	All Spaces			
YES	S07.1		β Impact Noise Management	Specify Impact Noise Reducing Flooring	All Spaces		Technical Document (Audited)	Beta Feature Feedback Form
MAYBE	S07.2		β Impact Noise Management	Meet Thresholds for Impact Noise Rating	All Spaces		Beta Feature Feedback Form	Technical Document (Individual)
MAYBE	S08.1		β Enhanced Audio Devices	Provide Enhanced Speech Intelligibility	All Spaces		Beta Feature Feedback Form	Technical Document (Individual)
MAYBE	S08.2		β Enhanced Audio Devices	Prioritize Audio Devices and Policies	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	S09.1		β Hearing Health Conservation	Implement a Hearing Health Conservation Program	All Spaces	Hearing health conservation program	Policy and/or Operations Schedule	Beta Feature Feedback Form
						Hearing health conservation supervisor	Policy and/or Operations Schedule	
YES	X01.1	Required	Material Restrictions	Restrict Asbestos	All Spaces		Technical Document (Audited)	Letter of Assurance – Contractor
YES	X01.2	Required	Material Restrictions	Restrict Mercury	All Spaces		Technical Document (Audited)	Letter of Assurance – Designer
YES	X01.3	Required	Material Restrictions	Restrict Lead	All Spaces	Paints and electronics	Technical Document (Audited)	Letter of Assurance – Contractor
						Drinking water pipes, fittings and solder	Letter of Assurance – Engineer	
YES	X02.1	Required	Interior Hazardous Materials Management	Manage Asbestos Hazards	All Spaces	Asbestos risk assessment and remediation	Technical Document (Audited)	
YES	X02.2	Required	Interior Hazardous Materials Management	Manage Lead Paint Hazards	All Spaces	Identify lead paint hazards	Technical Document (Audited)	
YES	X02.3	Required	Interior Hazardous Materials Management	Manage Polychlorinated Biphenyl (PCB) Hazards	All Spaces	PCB remediation	Technical Document (Audited)	
YES	X03.1	Required	CCA and Lead Management	Manage Exterior CCA Hazards	All Spaces	CCA assessment and remediation	Professional Narrative	
YES	X03.2	Required	CCA and Lead Management	Manage Lead Hazards	All Spaces	Lead assessment	Professional Narrative	
MAYBE	X04.1		Site Remediation	Assess and Mitigate Site Hazards	All Spaces	Environmental site assessment	Technical Document (Audited)	
						Monitoring and remediation plan	Technical Document (Audited)	
YES	X05.1		Enhanced Material Restrictions	Select Compliant Interior Furnishings	All Spaces	Furniture, millwork and fixtures	Technical Document (Audited)	Letter of Assurance – Designer
						Electrical and electronic products	Technical Document (Audited)	Letter of Assurance – Contractor
YES	X05.2		Enhanced Material Restrictions	Select Compliant Architectural and Interior Products	All Spaces		Technical Document (Audited)	Letter of Assurance – Contractor
YES	X06.1		VOC Restrictions	Limit VOCs from Wet-Applied Products	All Spaces		Letter of Assurance – Contractor	
YES	X06.2		VOC Restrictions	Restrict VOC Emissions from Furniture, Architectural and Interior Products	All Spaces		Letter of Assurance – Contractor	
MAYBE	X07.1		Materials Transparency	Select Products with Disclosed Ingredients	All Spaces		Technical Document (Audited)	
MAYBE	X07.2		Materials Transparency	Select Products with Enhanced Ingredient Disclosure	All Spaces		Technical Document (Audited)	
MAYBE	X07.3		Materials Transparency	Select Products with Third-Party Verified Ingredients	All Spaces		Technical Document (Audited)	
MAYBE	X08.1		Materials Optimization	Select Materials with Enhanced Chemical Restrictions	All Spaces	Materials selection	Technical Document (Audited)	
MAYBE	X08.2		Materials Optimization	Select Optimized Products	All Spaces		Technical Document (Audited)	
YES	X09.1		Waste Management	Implement a Waste Management Plan	All Spaces		Policy and/or Operations Schedule	

Targeting?	ID	Points attempted	Feature	Part	Space Types	Option Selected? (If applicable)	Verification Method #1 (based on option selected)	Verification Method #2 (based on option selected)
YES	X10.1		Pest Management and Pesticide Use	Manage Pests	All Spaces		Policy and/or Operations Schedule	
MAYBE	X11.1		Cleaning Products and Protocols	Improve Cleaning Practices	All Spaces except Dwelling Units	leaning plan development and implementatic	Policy and/or Operations Schedule	
MAYBE	X11.2		Cleaning Products and Protocols	Select Preferred Cleaning Products	All Spaces except Dwelling Units		Policy and/or Operations Schedule	
MAYBE	X12.1		β Contact Reduction	Reduce Respiratory Particle Exposure	All Spaces except Dwelling Units	Contact reduction cues	On-site Photographs	Beta Feature Feedback Form
						Contact reduction policies	Policy and/or Operations Schedule	
MAYBE	X12.2		β Contact Reduction	Address Surface Hand Touch	All Spaces except Dwelling Units	Surface touch management	Professional Narrative	Beta Feature Feedback Form
						Shared equipment usage policy	Policy and/or Operations Schedule	
YES	M01.1	Required	Mental Health Promotion	Promote Mental Health and Well-being	All Spaces		Policy and/or Operations Schedule	
YES	M02.1	Required	Nature and Place	Provide Connection to Nature	All Spaces except Dwelling Units		Professional Narrative	
YES	M02.2	Required	Nature and Place	Provide Connection to Place	All Spaces except Dwelling Units		Professional Narrative	
YES	M03.1		Mental Health Services	Offer Mental Health Screening	All Spaces		Policy and/or Operations Schedule	
MAYBE	M03.2		Mental Health Services	Offer Mental Health Services	All Spaces		Policy and/or Operations Schedule	
MAYBE	M03.3		Mental Health Services	Offer Workplace Support	All Spaces		Policy and/or Operations Schedule	
YES	M03.4		Mental Health Services	β Support Mental Health Recovery	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
YES	M04.1		Mental Health Education	Offer Mental Health Education	All Spaces		Policy and/or Operations Schedule	
MAYBE	M04.2		Mental Health Education	Offer Mental Health Education for Managers	All Spaces		Policy and/or Operations Schedule	
MAYBE	M05.1		Stress Management	Develop Stress Management Plan	All Spaces		Professional Narrative	
YES	M06.1		Restorative Opportunities	Support Healthy Working Hours	All Spaces		Policy and/or Operations Schedule	
MAYBE	M06.2		Restorative Opportunities	Provide Nap Policy and Space	All Spaces	Nap policy	Policy and/or Operations Schedule	
						Nap space	Technical Document (Audited)	
MAYBE	M07.1		Restorative Spaces	Provide Restorative Space	All Spaces	Restorative space	Technical Document (Audited)	
						Workday breaks	Policy and/or Operations Schedule	
MAYBE	M08.1		Restorative Programming	Provide Restorative Programming	All Spaces		Policy and/or Operations Schedule	
MAYBE	M09.1		Enhanced Access to Nature	Provide Nature Access Indoors	All Spaces		Technical Document (Audited)	
MAYBE	M09.2		Enhanced Access to Nature	Provide Nature Access Outdoors	All Spaces	Outdoor nature	Technical Document (Audited)	
						Outdoor nature access	Professional Narrative	
MAYBE	M10.1		Tobacco Cessation	Provide Tobacco Cessation Resources	All Spaces	Incentive program and cessation resources	Policy and/or Operations Schedule	
MAYBE	M11.1		Substance Use Services	Offer Substance Use Education	All Spaces	Substance use policy and education	Policy and/or Operations Schedule	
NO	M11.2		Substance Use Services	Provide Substance Use and Addiction Services	All Spaces		Policy and/or Operations Schedule	
YES	C01.1	Required	Health and Well-Being Promotion	Provide WELL Feature Guide	All Spaces	WELL feature guide	Policy and/or Operations Schedule	
						Communications	Policy and/or Operations Schedule	
YES	C02.1	Required	Integrative Design	Facilitate Stakeholder Charrette	All Spaces	Stakeholder charrette	Professional Narrative	
						Stakeholder orientation	Professional Narrative	
YES	C02.2	Required	Integrative Design	Promote Health-Oriented Mission	All Spaces		Policy and/or Operations Schedule	
YES	C03.1	Required	Emergency Preparedness	Develop Emergency Preparedness Plan	All Spaces		Policy and/or Operations Schedule	
YES	C04.1	Required	Occupant Survey	Select Project Survey	All Spaces	Third-party survey	Policy and/or Operations Schedule	
YES	C04.2	Required	Occupant Survey	Administer Survey and Report Results	All Spaces	Survey administration	Technical Document (Shareable)	
						Result reporting	On-going Data Report	
MAYBE	C05.1		Enhanced Occupant Survey	Utilize Enhanced Survey	All Spaces	Enhanced survey administration	Technical Document (Shareable)	
						Result analysis and reporting	On-going Data Report	
MAYBE	C05.2		Enhanced Occupant Survey	Utilize Pre- and Post-Occupancy Survey	All Spaces	Pre-occupancy survey administration	Technical Document (Shareable)	
						Result analysis and reporting	On-going Data Report	
MAYBE	C05.3		Enhanced Occupant Survey	Implement Action Plan	All Spaces		Technical Document (Shareable)	
MAYBE	C05.4		Enhanced Occupant Survey	Facilitate Interviews, Focus Groups and/or Observation	All Spaces	tration of interviews, focus groups and/or obs	Technical Document (Shareable)	
						Result analysis and reporting	On-going Data Report	
MAYBE	C06.1		Health Services and Benefits	Promote Health Benefits	All Spaces		Policy and/or Operations Schedule	
MAYBE	C06.2		Health Services and Benefits	Offer On-Demand Health Services	All Spaces		Policy and/or Operations Schedule	Technical Document (Audited)
MAYBE	C06.3		Health Services and Benefits	Offer Sick Leave	All Spaces	Short-term sick leave	Policy and/or Operations Schedule	
						Long-term sick leave	Policy and/or Operations Schedule	
MAYBE	C06.4		Health Services and Benefits	Support Community Immunity	All Spaces		Policy and/or Operations Schedule	
MAYBE	C06.5		Health Services and Benefits	β Provide Enhanced Health Benefits	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C07.1		Enhanced Health and Well-Being Promotion	Promote Culture of Health	All Spaces	Health promotion strategies	Policy and/or Operations Schedule	
						Health promotion coordinators	Policy and/or Operations Schedule	
MAYBE	C07.2		Enhanced Health and Well-Being Promotion	Establish Health Promotion Leader	All Spaces		Policy and/or Operations Schedule	
MAYBE	C08.1		New Parent Support	Offer New Parent Leave	All Spaces	Parental leave	Policy and/or Operations Schedule	
						Parental support policies	Policy and/or Operations Schedule	
MAYBE	C09.1		New Mother Support	Offer Workplace Breastfeeding Support	All Spaces	Pumping support	Policy and/or Operations Schedule	
						Travel accommodations	Policy and/or Operations Schedule	
MAYBE	C09.2		New Mother Support	Design Lactation Room	All Spaces		Technical Document (Audited)	
MAYBE	C10.1		Family Support	Offer Childcare Support	All Spaces		Policy and/or Operations Schedule	
NO	C10.2		Family Support	Offer Family Leave	All Spaces		Policy and/or Operations Schedule	
MAYBE	C10.3		Family Support	Offer Bereavement Support	All Spaces		Policy and/or Operations Schedule	
MAYBE	C11.1		Civic Engagement	Promote Community Engagement	All Spaces		Policy and/or Operations Schedule	
YES	C11.2		Civic Engagement	Provide Community Space	All Spaces	Public space	Technical Document (Audited)	Professional Narrative
MAYBE	C12.1		Diversity and Inclusion	Promote Diversity and Inclusion	All Spaces	Third-party program (1 point)	Policy and/or Operations Schedule	
YES	C13.1		Accessibility and Universal Design	Integrate Universal Design	All Spaces		Professional Narrative	

Targeting?	ID	Points attempted	Feature	Part	Space Types	Option Selected? (If applicable)	Verification Method #1 (based on option selected)	Verification Method #2 (based on option selected)
MAYBE	C14.1		Emergency Resources	Promote Emergency Resources	All Spaces	Emergency resources	Policy and/or Operations Schedule	
						Emergency training and personnel	Policy and/or Operations Schedule	
MAYBE	C14.2		Emergency Resources	Provide Opioid Response Kit and Training	All Spaces	Opioid response kits	Policy and/or Operations Schedule	
						Opioid response training	Policy and/or Operations Schedule	
MAYBE	C15.1		β Emergency Resilience and Recovery	Promote Business Continuity	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C15.2		β Emergency Resilience and Recovery	Support Emergency Resilience	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C15.3		β Emergency Resilience and Recovery	Facilitate Healthy Re-entry	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C15.4		β Emergency Resilience and Recovery	Establish Health Entry Requirements	All Spaces except Dwelling Units		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C17.1		β Responsible Labor Practices	Disclose Labor Practices	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C17.2		β Responsible Labor Practices	Implement Responsible Labor Practices	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C18.1		β Support for Victims of Domestic Violence	Support Victims of Domestic Violence	All Spaces	Domestic violence policy	Policy and/or Operations Schedule	
						Employee education	Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C19.1		β Education and Support	Establish Education and Support	All Spaces	Tuition assistance	Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	C20.1		β Historical Acknowledgement	Provide Historical Acknowledgement	All Spaces		Technical Document (Shareable)	Beta Feature Feedback Form
MAYBE	I01.1		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.2		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.3		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.4		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.5		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.6		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.7		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.8		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.9		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
MAYBE	I01.10		Innovate WELL	Propose Innovation	All Spaces		Innovation Form	
YES	I02.1		WELL Accredited Professional (WELL AP)	Achieve WELL AP	All Spaces		Technical Document (Shareable)	
MAYBE	I03.1		Experience WELL Certification	Offer WELL Educational Tours	All Spaces		Technical Document (Audited)	
MAYBE	I04.1		Gateways to Well-Being	Complete Health and Well-Being Programs	All Spaces		Technical Document (Audited)	
YES	I05.1		Green Building Rating Systems	Achieve Green Building Certification	All Spaces		Technical Document (Audited)	
MAYBE	I06.1		β Carbon Disclosure and Reduction	Carbon Inventory	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	I06.2		β Carbon Disclosure and Reduction	Carbon Reduction Goal	All Spaces	Science Based Target Commitment (1 pt)	Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	I06.3		β Carbon Disclosure and Reduction	Carbon Reduction	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form
MAYBE	I06.4		β Carbon Disclosure and Reduction	Carbon Neutral	All Spaces		Policy and/or Operations Schedule	Beta Feature Feedback Form

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