BREEAM PRE-ASSESSMENT

Camden Town Methodist Church

Camden Town Methodist Church

December 2015

CBRE

CONTENTS

APPENDICES

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CBRE

Executive Summary

In accordance with London Borough of Camden Planning Policy DP22 - Promoting sustainable design and construction and Camden Planning Guidance SPG – CPG3 Sustainability, Camden Town Methodist Church are to demonstrate that the Camden Town Methodist Church development in Camden will in principal demonstrate compliance to BREEAM Very Good.

Alongside the local authority requirements, Camden Town Methodist Church has expressed an interest in achieving BREEAM Excellent.

To demonstrate compliance, CBRE have been appointed as the BREEAM Consultants for the project. The statement is to establish if BREEAM Very Good can be demonstrated in principal, providing a quantitative response on how the Planning Application Proposal embodies BREEAM and identify what the detailed design proposals are expected to reflect. In addition, this statement identifies the additional works required in order to achieve BREEAM Excellent.

To verify if BREEAM Very Good can be demonstrated in principle, in a transparent and comprehensive manner, planning documentation, drawings and specifications were appraised against the relevant BREEAM UK Non Domestic Refurbishment and Fit Out 2014 assessment criteria for the building use type. Additionally, BREEAM Pre-Assessment reviews were completed with the design team to further enhance the BREEAM pre-assessment.

The Camden Town Methodist Church proposals and documents demonstrate that in principle a BREEAM Very Good rating of 58.73% is demonstrated, giving a 3% buffer over the minimum threshold (55%). Additionally, should Camden Town Methodist Church seek to go beyond Local Authority compliance a BREEAM Excellent rating of 71.04% could be demonstrated if the design is modified to incorporate the additional credits identified within this report.

Of the 71.04%, the BREEAM issues were identified as Current Proposals, Credits to Very Good and Credits to Excellent;

CURRENT PROPOSALS: BREEAM issues that can reasonably be achieved within the design specifications, planning documentation and confirmed by the design team. The BREEAM level that the Asset can reasonably achieve is as follows:

- Camden Town Methodist Church is in a position to achieve in principle a BREEAM Good rating of 42.68%.

CREDITS TO VERY GOOD: BREEAM issues that are required to achieve the BREEAM Very Good rating in principle but relate to contractor deliverables, appointment of additional consultants and the post occupancy elements of the design and would only be addressed at RIBA Stage 4 at the earliest.

- 16.05% of the BREEAM issues will be addressed at RIBA Stage 4 onwards and at this stage an assumption to compliance can only be made. In accounting for these items it is expected in principle that BREEAM Very Good of 58.73% is demonstrated. Complying with the London Borough of Camden Planning Policy DP22.

CREDITS TO EXCELLENT: BREEAM issues that would incur additional costs should Camden Town Methodist Church seek to achieve a BREEAM Excellent rating.

- The design would need to incorporate the additional 12.31% of BREEAM issues identified as incurring additional costs, should Camden Town Methodist Church seek to achieve BREEAM Excellent. In accounting for these items a BREEAM Excellent rating of 71.04% could be demonstrated.

Introduction

In accordance with London Borough of Camden Planning Policy DP22 - Promoting sustainable design and construction and Camden Planning Guidance SPG – CPG3 Sustainability, Camden Town Methodist Church are to demonstrate that the Camden Town Methodist Church development in Camden will in principal demonstrate compliance to BREEAM Very Good.

DP22 expects non-residential developments to achieve BREEAM Very Good by encompassing the following sustainable features:

- Demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5, have been incorporated into the design and proposed implementation; and
- Incorporate green or brown roofs and green walls wherever suitable.
- The Council will promote and measure sustainable design and construction by:
  - Expecting non-domestic developments of 500sqm of floor space or above to achieve "very good" in BREEAM assessments and "excellent" from 2016 and encouraging zero carbon from 2019.

CPG 3 requires the following minimum standards for the Energy, Water and Material sections of the BREEAM assessment to be achieved:

- Energy 60%
- Water 60%
- Materials 40%

Alongside the local authority requirements, Camden Town Methodist Church has expressed an interest in achieving BREEAM Excellent.

To demonstrate compliance, CBRE have been appointed as the BREEAM Consultants for the project. The statement is to establish if BREEAM Very Good can be demonstrated in principal, providing a quantitative response on how the Planning Application Proposal embodies BREEAM and identify what the detailed design proposals are expected to reflect. In addition, this statement identifies the additional works required in order to achieve BREEAM Excellent.

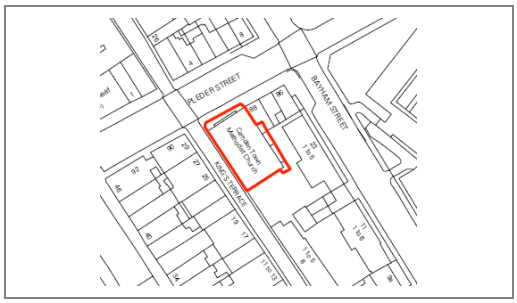
Introduction

SITE SCHEME AND DESCRIPTION

The church is situated on the south side of Plender Street close to its junction with Camden High Street.

The proposal for the Camden Town Methodist Church includes internal and external alterations to the existing place of worship (Class D1), including conversion of lower ground student accommodation (Class C2) to provide replacement worship space (Class D1) and flexible worship, community and ancillary hotel space at lower ground, a shared entrance at upper ground and 43 hotel bedrooms (Class C1) on upper floors, including a one storey (equivalent) extension, associated alterations to the main and side entrances and fenestration.

The location of the Camden Town Methodist Church can be found in below:



Source: Manalo & White Architects

BREEAM

BREEAM UK NON DOMESTIC REFURBISHMENT AND FIT OUT 2014

The BREEAM UK Non Domestic Refurbishment and Fit Out 2014 scheme can be used to assess the environmental life cycle impacts of existing non-domestic buildings at the refurbishment and fit-out stages.

BREEAM RATINGS

The BREEAM rating benchmarks are as follows:

BREEAM rating benchmarks

BREEAM Rating	% SCORE
OUTSTANDING	≥ 85
EXCELLENT	≥ 70
VERY GOOD	≥ 55
GOOD	≥ 45
PASS	≥ 30
UNCLASSIFIED	< 30

BREEAM MINIMUM STANDARDS

BREEAM has adopted a 'balanced score-card' approach to the assessment and rating, to achieve a particular rating the majority of BREEAM credits can be traded. However, to ensure that performance against key environmental issues is not avoided BREEAM has a set of minimum standards in key areas.

For BREEAM Very Good the following is to be attained:

Minimum Standards by BREEAM rating level

BREEAM ISSUE	MINIMUM STANDARDS FOR VERY GOOD
Ene 02: Energy monitoring	First submetering credit
Wat 01: Water consumption	One Credit
Wat 02: Water monitoring	Water meter to be installed on the mains water supply to the building
Mat 03: Responsible sourcing	All timber is sourced in accordance with the UK Government's Timber Procurement Policy.

Source: BREEAM UK Non Domestic Refurbishment and Fit Out 2014 Technical Manual

In addition to the above the following are to be attained for BREEAM Excellent:

BREEAM ISSUE	ADDITIONAL MINIMUM STANDARDS FOR EXCELLENT
Man 03: Responsible construction practices	One credit
Man 04: Stakeholder participation	One credit (building user information)
Man 05: Aftercare	One credit (seasonal commissioning)
Ene 01: Reduction of CO_2 emissions	Minimum EPRNC of 0.36 (6 credits)
Wat 02: Water monitoring	Water meter to be installed on the mains water supply to the building
Wst 01: Project Waste Management	One Credit
Wst 03: Operational waste	One Credit

Source: BREEAM UK Non Domestic Refurbishment and Fit Out 2014 Technical Manual

Camden Town Methodist Church BREEAM Analysis

BREEAM ANAYSIS

Methodology

To verify if BREEAM Very Good can be demonstrated in principle, in a transparent and comprehensive manner, planning documentation, drawings and specifications were appraised against the relevant BREEAM UK Non Domestic Refurbishment and Fit Out assessment criteria for the building use type. Additionally, BREEAM Pre-Assessment reviews were completed with the design team to further enhance the BREEAM pre-assessment.

This approach provided a thorough and analytical appraisal, identifying the relevant BREEAM specifications and allowing for a comprehensive insight into the BREEAM performance that can be demonstrated.

The documentation was appraised against each applicable BREEAM Issue classifying them as 'Current Proposals', 'Credits to Very Good' or 'Credits to Excellent' and the overall result quantified the BREEAM performance. The detailed response against each BREEAM assessment criteria is provided in Appendix A – Camden Town Methodist Church BREEAM Analysis.

Camden Town Methodist Church RAG classification

CLASSIFICATION	DETAIL
Current Proposals	BREEAM issues that can reasonably be achieved within the design specifications and planning documentation
Credits to Very Good	Reasonable inclusion of additional credits required to achieve Very Good that are to be confirmed at later RIBA stages
Credits to Excellent	Additional credits that incur capital costs required to achieve Excellent

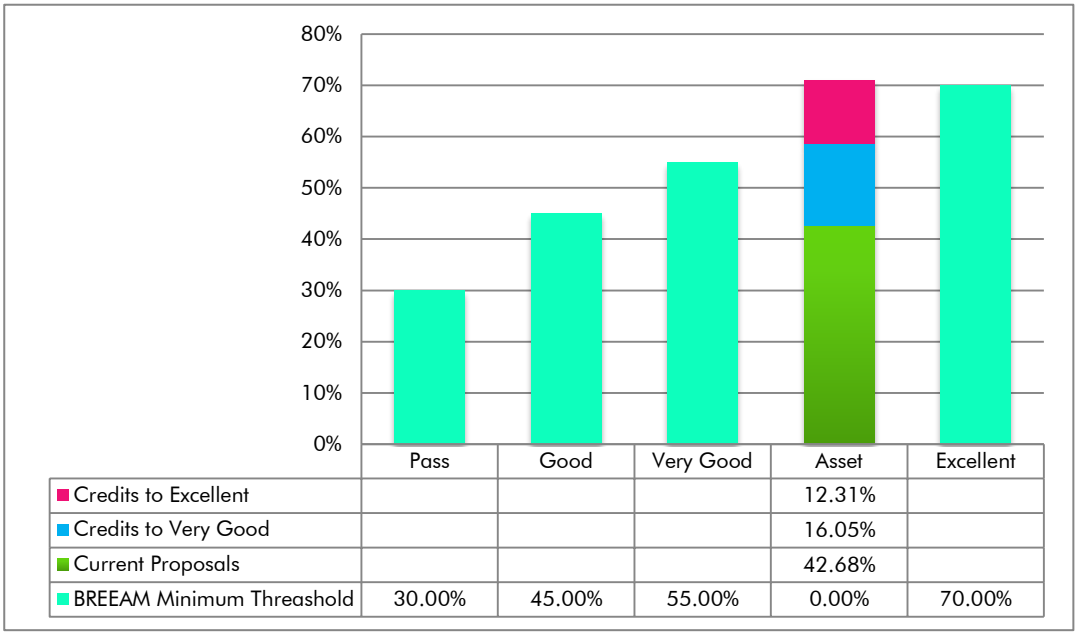
Appraisal

The Camden Town Methodist Church documents demonstrate that in principle a BREEAM Very Good rating of 58.73% is demonstrated, giving a 3% buffer over the minimum threshold (55%). Additionally, if the credits highlighted under the 'Credits to Excellent' classification are incorporated a BREEAM Excellent rating of 71.04% could be demonstrated. The comprehensive response against each applicable BREEAM Issue is detailed in Appendix A; *Camden Town Methodist Church BREEAM Pre-assessment*.

Camden Town Methodist Church BREEAM Analysis

BREEAM in Principal Performance

Camden Town Methodist Church BREEAM Appraisal performance against the BREEAM ratings



	Pass	Good	Very Good	Asset	Excellent
Credits to Excellent				12.31%	
Credits to Very Good				16.05%	
Current Proposals				42.68%	
BREEAM Minimum Threashold	30.00%	45.00%	55.00%	0.00%	70.00%

Of the 71.04%, the BREEAM issues were identified as Current Proposals, Credits to Very Good and Credits to Excellent;

CURRENT PROPOSALS: BREEAM issues that can reasonably be achieved within the design specifications, planning documentation and confirmed by the design team. The BREEAM level that the Asset can reasonably achieve is as follows:

- Camden Town Methodist Church is in a position to achieve in principle a BREEAM Pass rating of 42.68%.

CREDITS TO VERY GOOD: BREEAM issues that are required to achieve the BREEAM Very Good rating in principle but relate to contractor deliverables, appointment of additional consultants and the post occupancy elements of the design and would only be addressed at RIBA Stage 4 at the earliest.

- 16.05% of the BREEAM issues will be addressed at RIBA Stage 4 onwards and at this stage an assumption to compliance can only be made. In accounting for these items it is expected in principle that BREEAM Very Good of 58.73% is demonstrated. Complying with the London Borough of Camden Planning Policy DP22.

CREDITS TO EXCELLENT: BREEAM issues that would incur additional costs should Camden Town Methodist Church seek to achieve a BREEAM Excellent rating.

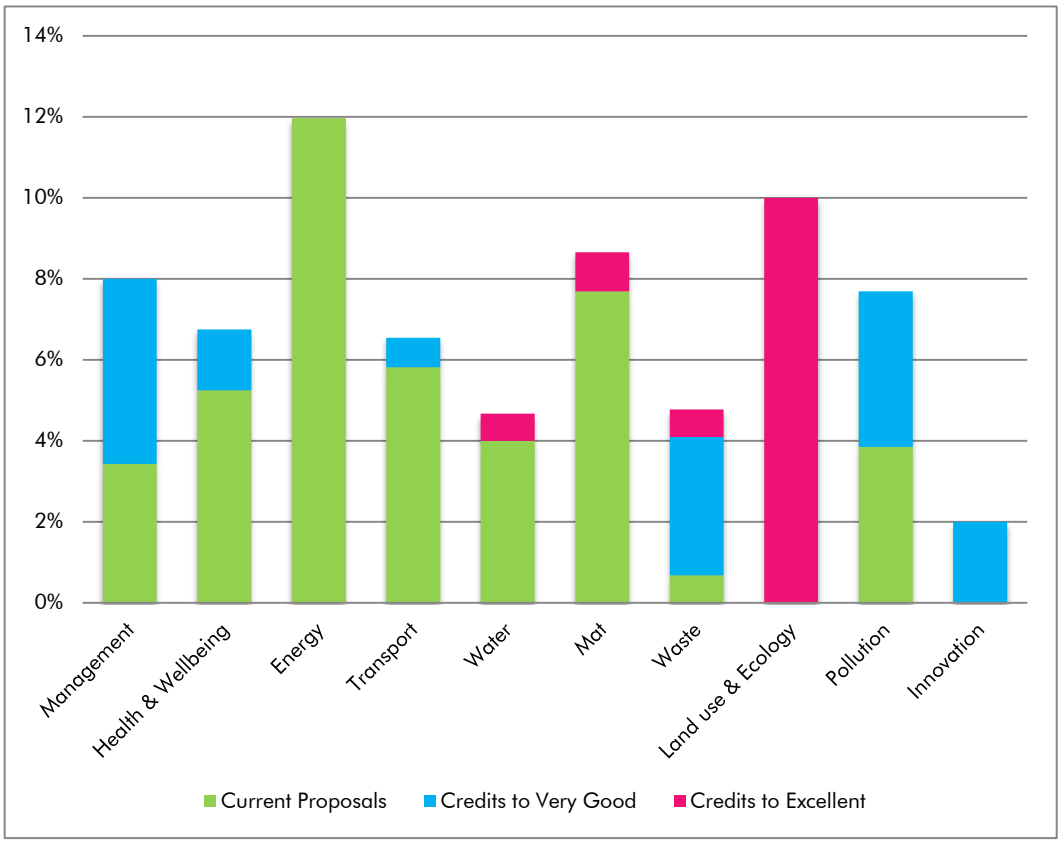
- The design would need to incorporate the additional 12.31% of BREEAM issues identified as incurring additional costs, should Camden Town Methodist Church seek to

Camden Town Methodist Church BREEAM Analysis

achieve BREEAM Excellent. In accounting for these items a BREEAM Excellent rating of 71.04% could be demonstrated.

BREEAM in Principal Performance

BREEAM Section Breakdown



The table above shows the 'BREEAM Very Good in principal' performance complying with the London Borough of Camden Planning Policy DP22 and the additional 'Credits to Excellent' performance split between the 10 BREEAM Sections. Appendix A details the document review and expectations made within each section.

SUMMARY

In appraising *Camden Town Methodist Church* proposals against the BREEAM criteria, it can be confirmed that BREEAM Very Good would be demonstrated in principle. The documents and drawings submitted to support the planning application give confidence that BREEAM is embedded from the outset, allowing BREEAM Very Good to be facilitated as the design develops. Therefore, complying with the London Borough of Camden Planning Policy DP22 and CPG 3.

As the appraisal has been conducted against proposals that reflect RIBA Stage 2 it has been assumed that as the design progresses the BREEAM elements relating to contractor deliverables, the appointment of additional consultants and the post occupancy elements will be addressed in the subsequent RIBA Stages.

Additionally, this appraisal has identified the credits that would be required to achieve BREEAM Excellent in principle, should Camden Town Methodist Church seek to go beyond Local Authority compliance.

APPENDICES

Appendix A; Camden Town Methodist Church BREEAM Pre-assessment

Camden Town Methodist Church

BREEAM (Refurbishment & Fit out) PRE-ASSESSMENT REPORT

December 2015

AMENDMENT RECORD

Issue No.	Section Number	Date of Amendment	Signed
2	Final for Planning	08.12.2015	Skent

Prepared By:	Checked/Approved By:		Date	Job Number
S KENT	N MOHAMMED		08.12.2015	138879

BREEAM 2014 Refurbishment & Fit out

Building name	Camden Town Methodist Church	KEY		BREEAM Ratings	
Version	V2		BREEAM minimum standard	Outstanding	85%
Current Proposals	BREEAM issues that can reasonably be achieved within the design specifications.	CLIENT	John Nyota - Camden Town Methodist Church	Excellent	70%
Credits to Very Good	BREEAM issues that are required to achieve the BREEAM Very Good rating in principle but relate to contractor deliverables, appointment of additional consultants and the post occupancy elements	ARCH & PM	Harry Molyneux - Manalo & White Architects	Very Good	55%
Credits to Excellent	Additional credits that incur capital costs required to achieve Excellent	MECH	Chris Shoebridge - Green Planet		
Current Proposals	42.68%	ELEC	Chris Shoebridge - Green Planet		
		CONTRACTOR	Requirements to be included in the ERs		
Credits to Very Good (CP + VG)	58.73%	C&S	Brett Scott - Engineers HRW		
	Very Good	TRANSPORT	Matt Bridges - Morgan Tucker		
Credits to Excellent (CP + VG + CE)	71.04%	ACOUSTIC CONSULTANT	Chris Snow - CSG Acoustics		
	Excellent				

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Management								
	Project Brief and Design	Man 01	4	2			ARCH CLIENT PM	**Current Proposals** *Stakeholder consultation covering project delivery and relevant third parties. *Consultation on the development must have been carried out in accordance with BREEAM requirements. It must be demonstrated that the design has developed in accordance with the feedback from the consultations.
	Life cycle cost and service life planning	Man 02	4					**BREEAM Issue not targeted**
	Responsible construction practices	Man 03	6		5		CLIENT PM CONTRACTOR	**Minimum standards: Excellent - One credit (Considerate construction) Outstanding - Two credits (Considerate construction)** **CONTRACTOR ER'S** To be included in the Contractor ER's, the contractor will: * Energy consumption must be monitored & reported during construction * Water consumption must be monitored & reported during construction * Transport movements of construction materials and waste transfer must be monitored & reported during construction * All site timber must be sourced in accordance with the Government's Timber Procurement Policy *The contractor operates an EMS for their main operations e.g. ISO 14001/EMAS & implements best practice pollution prevention policies *Achieve a score of 35 or more with a score of 7 in each of the 5 sections under the CCS.
	Commissioning and handover	Man 04	4	4			ARCH M&E CONTRACTOR	**BREEAM Minimum Standard; Excellent- Outstanding: Criterion 9 (Building User Guide)** **Current Proposals** *A schedule of commissioning and testing that identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and testing and inspecting building fabric. *A Building User Guide (BUG) is developed prior to handover, for distribution to the building occupiers and premises managers *Defects identified in the site inspection, thermographic survey and the airtightness testing reports are rectified prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building/element. *The survey/testing is undertaken by a Suitably Qualified Professional (see Relevant definitions) in accordance with the appropriate standard, with visual inspection conducted by a representative of the main contractor or by an independent inspector such as a clerk of works.
	Aftercare	Man 05	3		3		CLIENT PM	**BREEAM Minimum Standard: Excellent - Outstanding - Parts 2 - Core Services and 3 Local Services only: One credit (Seasonal commissioning)** **Credits to Very Good** *There is (or will be) operational infrastructure and resources, including building user guide, in place to provide aftercare support to the building occupier(s), *seasonal commissioning activities will be completed over a minimum 12-month period, once the building becomes substantially occupied. *The client or building occupier makes a commitment to carry out a post occupancy evaluation (POE) exercise one year after initial building occupation.
	Management environmental score		**21**	**6**	**8**	**0**		
		8.00%	**12%**	**3.43%**	**4.57%**	**0.00%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Health & Wellbeing								
	Visual comfort	Hea 01	7	2			**M&E**	**Current Proposals** ***Internal and external lighting systems are designed to avoid flicker and provide appropriate illuminance (lux) levels. Internal lighting is zoned to allow for occupant control. *Potential for glare has been designed out of all relevant building areas.
	Indoor Air Quality	Hea 02	5	2	1		**ARCH M&E CONTRACTOR**	**Current Proposals** * MECH- undertake an indoor air quality plan that considers: a. Removal of contaminant sources b. Dilution and control of contaminant sources c. Procedures for pre-occupancy flush out d. 3rd party testing and analysis. *ARCH- All finishes and fittings to meet the BREEAM table 8 VOC criteria by product type Credits to Very Good - **CONTRACTOR ER'S** * Principal contractor ERs to include formaldehyde and VOC testing
	Safe containment in laboratories	Hea 03	0					**Issue not applicable**
	Thermal comfort	Hea 04	3	2			**M&E**	**Current Proposals** *Thermal modelling carried out to appropriate standards. *The thermal modelling analysis has informed the temperature control strategy for the building and its users *The thermal model demonstrates that compliance with CIBSE Guide A or equivalent has been achieved *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.
	Acoustic performance	Hea 05	4		1		**ARCH ACOUSTIC CONSULTANT**	**Credits to Very Good** **BREEAM Pre-requisite; A suitably qualified acoustician is appointed by the client at the appropriate stage of the project to provide early advice on influencing outline design solutions to:** *Bedrooms: Airborne sound insulation values are at least 3dB higher and impact sound insulation values are at least 3dB lower than the performance standards in the relevant Building Regulations or Standards**.**
	Safety & security	Hea 06	1	1			**ARCH**	**Current Proposals** *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), creates recommendations based on the assessment and the recommendations are implemented.
	Health & wellbeing environmental score		**20**	**7**	**2**	**0**		
			15%	**5.25%**	**1.50%**	**0.00%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Energy								
	Reduction of CO_2 Emissions	Ene 01	15	8			**M&E**	***BREEAM Minimum Standard; Excellent requires (full assessments): Six credits, varies for other assessment types Outstanding requires (full assessments): Ten credits, varies for other assessment types*** **Current Proposals** ***Hotel to attain at least 8 credits. *Evidence that the project has complied with the minimum requirements of Building Regulations Approved Document Part L2B *To confirm compliance the existing building epc.inp file and the proposed building epc.inp file is required.
	Energy monitoring	Ene 02	1	1			**M&E**	***BREEAM Minimum Standard; Parts 2, 3 and 4, Very good- Outstanding: First sub-metering credit.*** **Current Proposals** * Energy metering systems are installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems
	External Lighting	Ene 03	1	1			**M&E**	**Current Proposals** *The average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt. *All external light fittings are automatically controlled for prevention of operation during daylight hours and presence detection in areas of intermittent pedestrian traffic.
	Low carbon design	Ene 04	3	1			**M&E**	**Current Proposals** *A feasibility study has been carried out to establish the most appropriate on-site/near-site low or zero carbon (LZC) energy source(s) for the building/development and is specified.
	Energy efficient cold storage	Ene 05	2	1			**M&E**	**Current Proposals** *The refrigeration system, its controls and components have been designed, installed and commissioned in accordance with BREEAM Guidance: a.In accordance with the Code of Conduct for carbon reduction in the refrigeration retail sector1 (see Other information) and BS EN 378-2 Refrigeration systems and heat pumps - Safety and environmental requirements. b.Using robust and tested refrigeration systems/components, normally defined as those included on the Enhanced Capital Allowance (ECA) Energy Technology Product List (ETPL)2 or an equivalent list (see CN8 for a list of components). c.The refrigeration plant has been commissioned to comply with the criteria for commissioning outlined in BREEAM issue Man 04 Commissioning and handover.
	Energy efficient transport systems	Ene 06	3	3			**M&E**	**Current Proposals** *Transportation analysis to be undertaken to determine the optimum number and size of lifts *Lifts to include two energy efficient features with the greatest potential energy saving: a.The lifts operate of the following in a standby condition during off-peak periods. For example the power side of the lift controller and other operating equipment such as lift car lighting, user displays and ventilation fans switch off when the lift has been idle for a prescribed length of time. b.The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 55 lamp 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.Where the use of regenerative drives is demonstrated to save energy, they are specified.
	Energy efficient laboratory	Ene 07	0					**BREEAM issue not assessed in this scheme**
	Energy efficient equipment	Ene 08	2	2			**M&E** **Client**	**Current Proposals** *Identification of the building's unregulated energy consuming loads which have a major impact on the total unregulated energy demand. *Demonstrate a meaningful reduction in the total unregulated energy demand of the building *Small plug in power equipment: -the following equipment has been awarded an Energy Star rating OR has been procured in accordance with the Government buying Standards. * Kitchen & Catering facilities: -The project has incorporated at least two-thirds of the energy efficiency measures outlined in the section summaries of each of the following sections of CIBSE Guide TM505 (except as specified): 1.Section 8 (Drainage and kitchen waste removal) 2.Section 9 (Energy controls - specifically controls relevant to appliances) 3.Section 11 (Appliance specification - not fabrication or utensil specifications) 4.Section 12 (Refrigeration) 5.Section 13 (Warewashing: dishwashers and glasswashers) 6.Section 14 (Cooking appliance selection) 7.Section 15 (Water temperatures, taps, faucets and water saving controls).
	Drying space	Ene 09	0	0				**BREEAM issue not assessed in this scheme**
	Energy environmental score		**27**	**17**	**0**	**0**		
			19%	**11.96%**	**0.00%**	**0.00%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Transport								
	Public transport accessibility	Tra 01	5	5				**Current Proposals** ***The hotel is easily accessible and has a PTAL rating of 6B and a total AI value of 42.
	Proximity to amenities	Tra 02	1	1			**ARCH**	**Current Proposals** ***Hotel is within 500m of a grocery shop, post box and cash machine.
	Cyclist facilities	Tra 03	2	2			**ARCH**	**Current Proposals** *Confirm number of building users for the building to calculate. The required amount of cycle spaces is: 1 cycle rack for every 10 staff and 1 for every 10 beds *At least two of the following types of compliant cyclist facilities have been provided: a.Showers b.Changing facilities c.Lockers d.Drying spaces
	Maximum Car Parking capacity	Tra 04	2				**ARCH**	**BREEAM issue not targeted**
	Travel Plan	Tra 05	1		1		**TRANSPORT CONSULTANT PM**	**Credits to Very Good - REQUIRES APPOINTMENT OF TRANSPORT CONSULTANT** ***A travel plan has been developed as part of the feasibility and design stages. *A site specific travel assessment/statement has been undertaken to ensure the travel plan is structured to meet the needs of the particular site and covers the following (as a minimum): a.Where relevant, existing travel patterns and opinions of existing building or site users towards cycling and walking so that constraints and opportunities can be identified. b.Travel patterns and transport impact of future building users. c.current local environment for walkers and cyclists (accounting for visitors who may be accompanied by young children). d.Disabled access (accounting for varying levels of disability and visual impairment). e.Public transport links serving the site. f.Current facilities for cyclists. *The travel plan includes a package of measures to encourage the use of sustainable modes of transport and movement of people and goods during the building's operation and use. *If the occupier is known, they must be involved in the development of the travel plan and they must confirm that the travel plan will be implemented post refurbishment or fit-out and be supported by the building's management in operation
	Transport environmental score		**11**	**8**	**1**	**0**		
			8%	**5.82%**	**0.73%**	**0.00%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Water								
	Water Consumption	Wat 01	5	3			**ARCH M&E CONTRACTOR**	**BREEAM Minimum Standard; Good-Excellent: One Credit, Outstanding: Two credit.** **Current Proposals** *water efficient sanitary fittings are to be installed . Required flow rates to be included in the Principal Contactor ERs: WC- 4l, WHB taps 7.5l/min, Showers 4l/min, Baths 140l, Urinals 3l/bowl/hour, Kitchen tap 7.5l/min, Restaurant pre-rinse nozzles- 8.3l/min, domestic sized dishwasher 13l/cycle, Commercial sized dishwasher 6l/rack, commercial sized washing machine 7.5l/kg.
	Water monitoring	Wat 02	1	1			**M&E**	**BREEAM Minimum Standard; Part 2 only Good-Outstanding: Criterion 1, specification of a water meter in the mains water supply to each building.** **Current Proposals** *Incoming supply to have pulsed water meter *Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with easily accessible sub-meters or have water monitoring equipment integral to the plant or area *Each meter (main and sub) has a pulsed output to enable connection to a Building Management System (BMS) for the monitoring of water consumption.
	Water leak detection and prevention	Wat 03	2	1		1	**CLIENT M&E PM**	**Current Proposals** *Recognition of leak detection systems capable of detecting a major water leak on the mains water supply **Credits to Excellent** *BREEAM compliant flow control devices are installed on the WC areas to ensure that water supplied only when needed. Considerable cost as flow control for each ensuite
	Water efficient equipment	Wat 04	1	1			**ARCH**	**Current Proposals** *Landscaping and planting will rely solely on manual watering or precipitation or will have a compliance BREEAM irrigation system.
	Water environmental score		**9**	**6**	**0**	**1**		
			6%	**4.00%**	**0.00%**	**0.67%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Materials								
	Life Cycle Impacts	Mat 01	6	3		1	**ARCH**	**Current Proposals** The following building elements are to be rated; * External walls * Windows * Roof * Upper floor slab * Internal walls * Floor finishes / coverings *Hard landscaping These elements will collectively attain 3credits.
	Hard Landscaping and boundary protection	Mat 02	0					**BREEAM issue not included in the assessment**
	Responsible sourcing	Mat 03	4	2			**ARCH** **CONTRACTOR**	**BREEAM Minimum Standard; Pass-Outstanding: Criterion 1; all timber used on the project is sourced in accordance with the UK Government's Timber Procurement Policy.** **Current Proposals** * all timber used on the project is sourced in accordance with the UK Government's Timber Procurement Policy. * 80% of the materials (breakdown is detailed in the BREEAM guidance) within the below is to be responsibly sourced; 1. Structural Frame 2. Ground floor 3. Upper floors (including separating floors) 4. Roof 5. External walls 6. Internal walls 7. Foundation/substructure 8. Fittings: includes stair case, windows (frame and glazing units), doors (internal and external), floor finishes and any other significant fitting or finish present (see also Compliance note). 9. Hard landscaping (see also BREEAM Compliance note) *Materials sourced in accordance with a sustainable procurement plan.
	Insulation	Mat 04	1	1			**ARCH** **CONTRACTOR** **M&E**	**Current Proposals - CONTRACTOR ER'S** *Recognition of the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties. *Insulation Index for the building fabric and services insulation is the same as or greater than 2.5 *insulation subject to assessment: external walls, ground floor, roof and building services.
	Designing for durability and resilience	Mat 05	1	1			**ARCH**	**Current Proposals** *The building incorporates measures to reduce impacts associated with damage and wear-and-tear. *Relevant building elements incorporate appropriate design and specification measures to limit material degradation due to environmental factors. 1. Areas of the building have been identified (both internal and external) where vehicular, trolley and pedestrian movement occur. 2. The design incorporates suitable durability and protection measures or design features/solutions to prevent damage to the vulnerable parts of the building. This must include, but is not necessarily limited to: a. Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc.). b. Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. c. Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring occurs within 1m of the external building façade for all car parking areas and within 2m for all delivery areas.
	Material efficiency	Mat 06	1	1			**ARCH**	**Current Proposals** *Opportunities have been identified, and appropriate measures investigated and implemented within the scope of refurbishment or fit-out works, to optimise the use of materials through building design, procurement, refurbishment, maintenance and end of life *The above is carried out by the design/construction team in consultation with the relevant parties at each of the following RIBA stages: a.Preparation and Brief b.Concept Design c.Developed Design d.Technical Design e.Construction.
	Materials environmental score		**13**	**8**	**0**	**1**		
			12.5%	**7.69%**	**0.00%**	**0.96%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Waste								
	Project waste management	Wst 01	7		5		**ARCH CONTRACTOR**	**BREEAM Minimum Standard; Outstanding: 1 credit** **Credits to Very Good** *pre-refurbishment audit of all existing buildings, structures or hard surfaces within the scope of the refurbishment or fit-out zone is completed. The audit must be referenced in the resource management plan, needs to illustrate the key materials that are to be recycled or reused, identify local recycling facilities and set targets for diverting the key materials waste from landfill. *Audit should be carried out before Concept Design Stage (equivalent to RIBA stage 2) **CONTRACTOR ER'S** * Contractor is to prepare a compliant SWMP targeting a resource efficiency of ≤2.1m3 of waste generated per 100m2 gifa or ≤0.4 tonnes of waste generated per 100m2 per gifa. * Contractor is to divert 85% by vol or 90% by tonnage of non hazardous waste from landfill and 90% by vol or 95% by tonnage of demolition waste from landfill.
	Recycled aggregates	Wst 02	1					**BREEAM issue not included in the assessment**
	Operational waste	Wst 03	1	1			**ARCH**	**BREEAM Minimum Standard; Excellent - Outstanding: 1 credit** **Current Proposals** ***Dedicated areas provided for each commercial unit. *There is dedicated space(s) to cater for the segregation and storage of operational recyclable waste volumes. *The dedicated space(s) must be: a. Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams b. Accessible for the deposit of materials and collections c. Sized; when catering is provided; at least 4m2 per 1000m2 of nfa < 5000m2 or a minimum of 20m2 for nfa ≥ 5000m2
	Speculative floor and ceiling finishes	Wst 04	0	0				**BREEAM Issue not applicable for this assessment**
	Adaption to climate change	Wst 05	1			1	**ARCH M&E PM**	**Credits to Excellent** ***Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the following approach: *Carry out a systematic (structural and fabric resilience specific) risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extreme weather conditions arising from climate change and, where feasible, mitigate against these impacts. The assessment should cover the following stages: a.Hazard identification b.Hazard assessment c.Risk estimation d.Risk evaluation e.Risk management.
	Functional adaptability	Wst 06	1					**BREEAM Issue not targeted**
	Waste environmental score		**11**	**1**	**5**	**1**		
			7.50%	**0.68%**	**3.41%**	**0.68%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Land use & Ecology								
	Site selection	LE 01	0					**BREEAM issue not applicable to this assessment**
	Ecological value of site and protection of ecological features	LE 02	1			1	**CLIENT PM SUITABLY QUALIFIED ECOLOGIST**	**Credits to Excellent - REQUIRES APPOINTMENT OF SUITABLY QUALIFIED ECOLOGIST** *All existing features of ecological value (see Relevant definitions) within and surrounding the refurbishment or fit-out zone and site boundary area are adequately protected from damage during clearance, site preparation and refurbishment or fit-out activities in line with BS42020: 20131. *In all cases, the principal contractor is required to construct ecological protection recommended by the Suitably Qualified Ecologist (SQE), prior to any preliminary site refurbishment or fit-out or preparation works (e.g. erection of temporary site facilities)
	Mitigating Ecological Impact	LE 03	0					**BREEAM issue not applicable to this assessment**
	Enhancing Site Ecology	LE 04	1			1	**CLIENT PM SUITABLY QUALIFIED ECOLOGIST**	**Credits to Excellent - REQUIRES APPOINTMENT OF SUITABLY QUALIFIED ECOLOGIST** *suitably qualified ecologist ecology report for the enhancement and protection of the site ecology that will result In at least no negative change in plant species richness. *Landscaping planting schedule to reflect the increase of species. *The early stage advice and recommendations of the Ecology Report for the enhancement of site ecology have been, or will be, implemented in the refurbishment or fit-out.
	Long Term Impact on Biodiversity	LE 05	2			2	**CLIENT PM SUITABLY QUALIFIED ECOLOGIST**	**Credits to Excellent - REQUIRES APPOINTMENT OF SUITABLY QUALIFIED ECOLOGIST** *The production of a long term landscape and habitat management plan to encourage measures that improve the site's long term biodiversity.
	Land use & ecology environmental score		**4**	**0**	**0**	**4**		
			10.00%	**0.00%**	**0.00%**	**10.00%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Pollution								
	Impact of refrigerants	Pol 01	3	3			**M&E**	**Current Proposals** *Where systems using refrigerants have a permanent automated refrigerant leak detection system installed; OR where an inbuilt automated diagnostic procedure for detecting leakage is installed.
	Nox Emissions	Pol 02	3				**M&E**	**BREEAM Issue not targeted due to the diversity of plant systems**
	Surface water run off	Pol 03	5		5		**CIVIL**	**BREEAM Pre-requisite: an appropriate consultant is to be appointed to carry out, demonstrate and/or confirm the requirements listed under surface water run off.** **Credits to Very Good** ***FRA to confirm that the site is of low flood risk *Appropriate consultant to undertake the required calculations for surface water run off *Appropriate consultant to undertake the required design for minimising water course pollution in line with the SUDs manual. Up to date drainage plan to be provided to the building users.
	Reduction of night time pollution	Pol 04	1	1			**M&E**	**Current Proposals** ***External lighting to comply with the ILP 2011 guidance notes *External lighting controls to be set for automatic switch off between 2300-0700 *safety or security lighting used 2300-0700 to be designed in line with the ILP guidance notes Table 2 *Illuminated advertisements to be in line with ILE technical report 5.
	Noise attenuation	Pol 05	1	1			**CLIENT PM ACOUSTIC CONSULTANT**	**Current Proposals - ACOUSTICIAN APPOINTED** ***Noise impact assessment (NIA) to be undertaken by a suitably qualified acoustician in line with BS7445. *The noise level from the proposed site/building, as measured in the locality of the nearest or most exposed noise-sensitive development, is a difference no greater than +5dB during the day (07:00 hr to 23:00 hr) and +3dB at night (23:00 hr to 07:00 hr) compared to the background noise level. *Where the noise source(s) from the proposed site/building is 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 criterion 4.
	Pollution environmental score		**13**	**5**	**5**	**0**		
			10.00%	**3.85%**	**3.85%**	**0.00%**		

BREEAM Section	Topic	Issue ref	Credits available	Current Proposals	Credits to Very Good	Credits to Excellent	Responsibility	Commentary
Innovation								
		Inn 01	10		2		CLIENT PM CONTRACTOR	**CONTRACTOR ER'S** *Innovation credit for Man 02- CONSIDERATE CONSTRUCTORS. A CCS score of 40 or more with at least 7 in each section. **Credits to Very Good - MAN 05 AFTERCARE** *There are, or will be, operational infrastructure and resources in place to coordinate the following activities at quarterly intervals for the first three years of building occupation: a.Collection of occupant satisfaction, energy consumption and (where available) water consumption data. b.Analysis of the data to check the building is performing as expected and make any necessary adjustments to systems controls or to inform building user behaviours. c.Setting targets and/or appropriate actions for reducing water and energy consumption and monitor progress towards these. d.Feedback any 'lessons learned' to the design team and developer for use in future projects. e.Provision of the actual annual building energy, water consumption (where available and accessible) and occupant satisfaction data to BRE for the purpose of future BREEAM performance benchmarking.
			10	0	2	0		
	Innovation environmental score		**10.00%**	**0.00%**	**2.00%**	**0.00%**		
	Score			42.68%	16.05%	12.31%		